## Changes to the Calendar 2011-2012

The following changes have been made to the Calendar since its publication in March, 2011.

<table>
<thead>
<tr>
<th>Page Number</th>
<th>Changes</th>
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<tbody>
<tr>
<td><strong>Special Note</strong></td>
<td>Changes made to Prerequisites regarding &quot;Permission of Instructors&quot; within the following disciplines: Anthropology, Art History, Economics for Management Studies, French, Global Asia Studies, History, Intersections, Exchanges and Encounters in Humanities, Languages, Philosophy, Women and Gender Studies.</td>
</tr>
</tbody>
</table>
| 66 | Biological Sciences- BIOD96Y3  
*Change:* "...students must seek an individual who will supervise the research and then obtain permission from the UTSC Paramedicine Supervisor."  
*To:* "...students must seek an individual who will supervise the research and then obtain permission from the course instructor." |
| 70 | Second and Later Years in Chemistry section  
*Change:* "... include a laboratory component."  
*To:* "... include a laboratory component." |
| 70 | Major Program in Biochemistry  
Program Supervisor changed now: A. Hadzovic (416 287-5602 Email: alen.hadzovic@utoronto.ca |
| 75 | Major Program in City Studies - (5)Applications section  
*Change:* HISD38H3  
*To:* HISD38H3 |
| 81 | Note on Admission to CSC Courses in Computer Science section  
*Change:* "All CSC courses beyond the A-level, except for CSCB07H3...Details will be posted on websites during registration."  
*To:* "CSC courses are open to all students who meet the...after first year will be subject to retroactive program tuition fees." |
| 96 | Major Program in Diaspora and Transnational Studies section  
*Change:* VPHC73H3  
*To:* VPHC73H3 |
| 97 | DTSD01H3 in Diaspora and Transnational Studies section  
*Change:* "Postcolonialism and Diaspora..."  
*To:* "This will be a course using the intersections between Postcolodialism and Diaspora..." |
| 106 | English section  
*Change:* "... to consult Supervisor... "  
*To:* "...to consult with the Program Supervisor... " |
| 112 | English Section- ENGC44H3: error regarding exclusion and pre-requisites.  
*Change:* "Exclusion: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or..." |
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<tr>
<th>Page</th>
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<tbody>
<tr>
<td>139</td>
<td>Geography section- GGRC25H3- removal of (GGRC20H3) as Exclusion.</td>
</tr>
<tr>
<td>148</td>
<td>Guidelines for 1st year course selection in Health Studies section</td>
</tr>
<tr>
<td></td>
<td>1. <strong>Change</strong>: &quot;... or [SOCA01H3 &amp; SOCA01H3]&quot;</td>
</tr>
<tr>
<td></td>
<td>2. <strong>To</strong>: &quot;... or [SOCA01H3 &amp; SOCA02H3]&quot;</td>
</tr>
<tr>
<td></td>
<td><strong>Change</strong>: &quot;[BGYA01H3 &amp; BGYA02H3]&quot;</td>
</tr>
<tr>
<td></td>
<td><strong>To</strong>: &quot;[BIOA01H3 &amp; BIOA02H3]&quot;</td>
</tr>
<tr>
<td>153</td>
<td>Guidelines for 1st year course selection in History section</td>
</tr>
<tr>
<td></td>
<td>1. <strong>Change</strong>: HISA01H3</td>
</tr>
<tr>
<td></td>
<td>2. <strong>To</strong>: HISA04H3</td>
</tr>
<tr>
<td>154</td>
<td>HISB10H3 in History Section</td>
</tr>
<tr>
<td></td>
<td>1. <strong>Delete</strong>: &quot;Prerequisite: Any 11 full credits including 2 full credits in Classical Studies or History.&quot;</td>
</tr>
<tr>
<td>169</td>
<td><strong>IDSB10H3</strong> in International Development Studies</td>
</tr>
<tr>
<td></td>
<td>1. <strong>Change</strong>:</td>
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<tr>
<td></td>
<td>1. &quot;This online course from the Department of Social Sciences...using web-based tools.&quot;</td>
</tr>
<tr>
<td></td>
<td>2. &quot;Enrolment Limits: 90&quot;</td>
</tr>
<tr>
<td></td>
<td>3. &quot;Breadth Requirement: Social &amp; Behavioural Sciences&quot;</td>
</tr>
<tr>
<td></td>
<td>2. <strong>To</strong>:</td>
</tr>
</tbody>
</table>
|      | 1. "Examines in-depth the roles of information ...exchange and what do these mean for development?"
|      | 2. "Enrolment Limits: 88"
<p>|      | 3. &quot;Breadth Requirement: Social and Behavioural Sciences&quot;          |
|      | <strong>Delete</strong>: &quot;Pending Governance Approval&quot;                           |
| 170  | International Development Studies section                          |
|      | <strong>Add</strong>: <strong>IDSD10H3</strong> Topics in International Development Studies  |
| 174  | Journalism Section                                                  |
|      | 1. <strong>Change</strong>: Program Supervisor is now J. Dvorkin (416-208-2919) Email: <a href="mailto:jeffrey.dvorkin@utoronto.ca">jeffrey.dvorkin@utoronto.ca</a> |</p>
<table>
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| 183  | Linguistics Section: Specialist Program in Psycholinguistics: Under Program Requirement 2.  

*Change Course Code:* PHLC65H3 Quantitative Methods in Linguistics  

*To:* PLIC65H3 Quantitative Methods in Linguistics |
| 187  | Faculty List in Management Section  

*Change:*  
"J. Heathcote... Senior Lecturer"  
"H. Laurence... Senior Lecturer"  
"P. Radhakrishnan... Lecturer"  

*To:*  
"J. Heathcore... Senior Lecturer (Effective July 1, 2011)"  
"H. Laurence... Senior Lecturer (Effective July 1, 2011)"  
"P. Radhakrishnan... Senior Lecturer"  

*Delete:*  
"J. Heathcote... Lecturer"  
"H. Laurence... Lecturer" |
| 189  | Management Section- Breadth & Depth Within the Degree: 2...  

*Change:*  
"...fulfill categories 3 & 5...and find that categories 1 and/or 2"  

*To:*  
"...fulfill categories c & e... and find that categories a and/or b" |
| 200  | MGTD30H3 in Management section  

*Change:*  
"Prerequisite: MGTB04H3, (ECMB09Y3)/ECMB11H3 (Quantitative Methods in Economics I), STAB27H3 (Statistics II)"  

*To:*  
"Prerequisite: MGTB04H3 & [ECMB11H3 & ECMB12H3] OR (ECMB09Y3)" |
| 204  | REVISED: Mathematics Section: Major Program in Mathematics (Science)  

New Supervisor of Studies: N. Cheredeko  

*Email:* n.cheredeko@utoronto.ca  

Mathematics Section: Major Program in Mathematics (Science)  

New Supervisor of Studies: S. Chrysostomou  

*Email:* chrysostomou@utsc.utoronto.ca |
| 217  | New Media Studies Section Guidelines for 1st year course selection:  

*Change:*  
"...include MDSA01H3 Introduction to Media Studies and MDSB61H3 Critical Approaches to Digital Media..."  

*To:*  
"...include MDSA01H3 Introduction to Media Studies and MDSA02H3 History of Media and Technology..." |
<table>
<thead>
<tr>
<th>Page</th>
<th>Change</th>
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| 217  | New Media Studies Joint Program Requirements.  

*Change:* Total credits from 8.0 credits...  
*To:* 9.0 credits... |
| 238  | PHYA10H3 in Physics and Astrophysics section  

*Change:* "Prerequisite: Physics 12U-SPH4U (Grade 12 Physics) & Calculus and Vectors (MCV4U) & Advanced Functions (MHF4U) or (PHYA01H3)  
*To:* "Prerequisite: Physics 12U-SPH4U (Grade 12 Physics) & Calculus and Vectors (MCV4U) & Advanced Functions (MHF4U)  
*Deleted:* (PHYA01H3)  
PHYA11H3 in Physics and Astrophysics section  
*Change:* "Corequisite: (MATA20H3) or MATA30H3 Grade 12 Physics (SPH4U)  
*To:* "Corequisite: (MATA20H3) or MATA30H3 |
| 239  | PHYB10H3 in Physics and Astrophysics section  

*Change:* "Prerequisite: PHYB23H3, [MATA36H3 or MATA37H3]  
*To:* "Prerequisite: PHYA21H3, [MATA36H3 or MATA37H3]  
*Deleted:* PHYB23H3 |
| 261  | PSYC18H3 in Psychology section  

*Change:* "Exclusion: (PSY394), PSY494H"  
*To:* "Exclusion: PSY331H, (PSY394), PSY494H" |
| 264  | PSYD34H3 in Psychology section  

*From Prerequisite:* Delete PSYC08H3 |
| 271  | SOCB47H3 in the Sociology section  
Breadth Requirement now listed as: Social & Behavioural Sciences |
| 302  | Major Program in Theatre and Performance Studies section  

*Add:* 6.VPDD50H3 Advanced Seminar In Theatre and Performance |
| 325  | Accommodation for Religious Observances in Examinations section  

*Change:* "the student should write to the Associate Dean requesting an accommodation..."  
*To:* "the student should submit through e-service, a request for accomodation..." |
<table>
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<tr>
<th>Year</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
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<th>July</th>
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<td>2012</td>
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<td>15 16 17 18 19 20 21</td>
<td>22 23 24 25 26 27 28</td>
<td>29 30 31</td>
<td>1 2 3 4 5</td>
<td>6 7 8 9 10 11 12 13 14</td>
<td>15 16 17 18 19 20 21</td>
<td>22 23 24 25 26 27 28</td>
</tr>
</tbody>
</table>
Calendar

"Always the university must foster the search for truth....it is the search for truth and not truth which keeps civilization alive."


2011/2012

1265 Military Trail, Toronto, Ontario, Canada, M1C 1A4
www.utsc.utoronto.ca
GREETINGS FROM THE PRINCIPAL

Welcome to the 2011/2012 academic year at U of T Scarborough (UTSC). This is an exciting time to be on our campus as it experiences growth and renewal. With top-notch faculty and more than 10,000 undergraduate and graduate students, we’ve joined the ranks of Canada’s mid-sized universities—large enough to have significant impact, yet nimble enough to respond quickly and effectively to shifts in the social and educational landscape.

New and emerging areas of study at the undergraduate and graduate level are enhancing our academic offerings and responding to the needs of our students. Unique Master’s and Ph.D. programs are also being developed in particular areas in science, the environment, humanities and business. The new Ph.D. in environmental science aims to prepare the next generation of scientists to help close the gap in the knowledge the world needs to tackle emerging environmental challenges. This important new Ph.D. program speaks to our continued focus on developing distinctive academic offerings and attracting world-class scholars in order to further establish our campus as a vital hub for learning and discovery.

We offer the University’s only formal co-operative programs including the highly sought-after Bachelor of Business Administration degree. Our joint programs with Centennial College address the value placed on blending theory and practice. The Concurrent Teacher Education Program (CTEP) was developed in collaboration with the Ontario Institute for Studies in Education (OISE) and U of T and provides a direct route to becoming a school teacher in the fields of Chemistry, Mathematics, Physics and French. We are firmly committed to creating a student experience that guides you along rewarding career paths. We are uniquely positioned to provide an intellectual, cultural and social hub for the eastern Greater Toronto Area, a region identified by all levels of government as a centre of dramatic population growth that will see a boom in economic development in the decades to come.

The vital expansion of our UTSC North Campus is now under way. The $78 million Instructional Centre Complex is a welcome addition to our learning space. This landmark building is only the first step in realizing our vision for the North Campus. There is also the Pan American Games to be held in Toronto in 2015, which will provide a tremendous opportunity for UTSC to offer improved athletics and wellness space on a world-class scale.

You are part of a transformative time in the life of UTSC. Take advantage of the many opportunities that are being created for you. I trust your time with us will be richly rewarding.

Best wishes for a successful year,

Franco J. Vaccarino, Ph.D.
Principal, University of Toronto Scarborough
Vice President, University of Toronto
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For updates to this Calendar, check www.utsc.utoronto.ca/calendar. Please note that not all courses listed in this Calendar are offered every year. For course timetables, visit www.utsc.utoronto.ca/timetable.
Statement of Institutional Purpose

Below is an extract of the University of Toronto's Statement of Institutional Purpose. To see the statement in its entirety, refer to the Governing Council website at: www.governingcouncil.utoronto.ca/policies.htm

PURPOSE OF THE UNIVERSITY

The University of Toronto is dedicated to fostering an academic community in which the learning and scholarship of every member may flourish, with vigilant protection for individual human rights, and a resolve commitment to the principles of equal opportunity, equity and justice.

THE UNIVERSITY COMMUNITY

The University of Toronto believes that it best serves Canada and the wider world by pursuing, to the limit of its abilities, its fundamental mandates of research and teaching in the spirit of academic freedom. In seeking to achieve the above objectives, the University of Toronto is committed to four principles:

1. Respect for intellectual integrity, freedom of enquiry and rational discussion;
2. Promotion of equity and justice within the University and recognition of the diversity of the University community;
3. A collegial form of governance;
4. Fiscal responsibility and accountability.

The University values its graduates as life-long members of the University community who make significant contributions to its ongoing life and reputation.

The University recognizes that in the foreseeable future the majority of its funding will come from public sources, and thanks the people of Ontario and of Canada for this support.

Statement on Human Rights

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

- Acknowledges that it conducts its teaching, research and other activities in the context of a richly diverse society;
- Recognizes that the attainment of excellence in pursuit of its mission is furthered by the contribution made by persons reflecting this rich diversity;
- Acts within its purview to prevent or remedy discrimination or harassment on the basis of race, gender, sexual orientation, age, disability, ancestry, place of origin, colour, ethnic origin, citizenship, creed, marital status, family status, receipt of public assistance or record of offence;

Important Notices

1. Changes in Programs of Study (Subject Points) and/or Courses

The programs of study that the Calendar lists and describes are available for the year(s) to which the Calendar applies. They may not necessarily be available in later years. If the University or the Faculty must change the content of programs of study or withdraw them, all reasonable possible advance notice and alternative instruction will be given. The University will not, however, be liable for any loss, damages, or other expenses that such changes might cause.

For each program of study offered by the University through the Faculty, the courses necessary to complete the minimum requirements of the program will be made available annually. We must, however, reserve the right otherwise to change the content of courses, instructors and instructional assignments, enrolment limitations, prerequisites and corequisites, grading policies, requirements for promotion and timetables without prior notice.

2. Regulations and Policies

As members of the University of Toronto community, students assume certain responsibilities and are guaranteed certain rights and freedoms. The University has several policies that are approved by the Governing Council and which apply to all students. Each student must become familiar with the policies. The University will assume that he or she has done so. The rules and regulations of the Faculty are listed in this Calendar. In applying to the Faculty, the student assumes certain responsibilities to the University and the Faculty and, if admitted and registered, shall be subject to all rules, regulations and policies cited in the Calendar, as amended from time to time.

All University policies can be found at: www.governingcouncil.utoronto.ca/policies.htm

Those which are of particular importance to students are:

- Code of Behaviour on Academic Matters
3. Enrolment Limitations

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

4. Copyright in Instructional Settings

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

5. Personal ID (Student Number)

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

6. Fees and Other Charges

The University reserves the right to alter the fees and other charges described in the Calendar. Note: Specific tuition and fees information can be found at www.uts.oronto.ca.

7. 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 24(4) of the University of Toronto Act, 1971. It is collected for the purpose of administering admission, registration, academic programs, university-related student activities, activities of student societies, financial assistance and awards, graduation and university advancement, and for the purpose of statistical reporting to government agencies. At all times it will be protected in accordance with the Freedom of Information and Protection of Privacy Act. If you have questions, please refer to www.utoronto.ca/privacy or contact the University Freedom of Information and Protection of Privacy Coordinator at 416-946-7303, Murchison Building, Room 104, 12 Queen’s Park Crescent West, Toronto, ON, MSS 1A8.

An expanded version of this Notice can be found at www.uts.oronto.ca.

8. Separate Calendars

Separate Calendars are published by the Faculty of Arts and Science and by the University of Toronto Mississauga. Students are reminded that the University of Toronto Scarborough is a separate faculty of the University and that rules covering students registered at University of Toronto Scarborough may differ from those elsewhere in the University.

9. Calendar and Calendar Changes

The information published in this Calendar outlines the rules, regulations, curricula and programs for the University of Toronto Scarborough. The University of Toronto Scarborough reserves the right to change without notice any information contained in this Calendar, including any rule or regulation. The publication of information in this Calendar does not bind the University to the provision of courses, programs or facilities as listed herein. Go to Quick Links at www.uts.oronto.ca for the most up-to-date copy of this Calendar. You will also find any amendments to the Calendar posted there.

Please note that, as of 2010/11, the University of Toronto Scarborough discontinued its practice of giving a hard copy of the Calendar to returning students. Hard copies will continue to be made available to new students.

10. Academic Offences Are a Serious Matter

See the Code of Behaviour on Academic Matters at www.governingcouncil.utoronto.ca/policies.htm.

11. Class Attendance

Class attendance is an important aspect of university studies. Though it is not mandatory, students are likely to place themselves at a distinct disadvantage if they do not attend. They cannot expect any special consideration on the grounds of non-attendance.

In particular, newly-admitted students who are unable to attend during the first two weeks of classes are strongly advised to consider waiting until a future session before beginning their studies. (New students who decide to wait until a future session should contact Admissions and Student Recruitment to arrange a formal deferral of the Offer of Admission.)

12. Official Correspondence

Students are responsible for ensuring that ROSI contains a valid postal address and a university-issued email address (see the Policy on Official Correspondence with Students at www.governingcouncil.utoronto.ca/policies.htm). Note: Email is the University's primary method of communicating with students regarding registration, ROSI notices, student accounts and other important business. All U of T students are provided with a campus email address through the UTORMail service. Setting up a UTORMail account is mandatory for all University of Toronto students.

13. Procedure for Rescheduling Exams Cancelled because of Winter Weather Conditions

If the campus is closed because of inclement weather for a day or part of a day during the December exam period, all missed examinations will be rescheduled on the first Saturday of the Winter term. For each rescheduled exam, the time and room...
Sessional Dates

There are three academic sessions: Summer Session (May to August), Fall Session (September to December) and Winter Session (January to April). For dates related to courses on other campuses, see the appropriate Calendar or registration guide. Please refer to the Registrar's Office website at www.utsi.utoronto.ca/registrarsite for other important registration, financial and petition deadlines.

For R.O.S. hours on deadline dates, go to www.utsi.utoronto.ca/hours.html

2011 Summer Session

Monday, May 2
Last day to pay fees.

Monday, May 9
Classes begin in Y & F courses.

Sunday, May 15
Last day for students writing deferred examinations in August to adjust their current course load.

Monday, May 23
Last day to add Y & F courses.

Monday, June 13
Victoria Day ➔ University closed.

Tuesday, June 14 - Monday, June 20
Last week of classes in F courses. (Final examinations will be held in a class period during this week.)
Last week to drop UTSC F courses and have them remain on the transcript with a grade of LD indicating withdrawal without academic penalty. Requests must be submitted before the final exam is held. After this date, grades recorded on transcripts whether course work is completed or not (with a W assigned for incomplete work) and they are calculated into GPAs. (Note: See www.utsi.utoronto.ca/registrarsite for LD dates for courses on other campuses.)

Monday, June 20
Last day for submission of term assignments in F courses.

Tuesday, June 28 - Friday, July 1
Reading Week. (Note: Classes or exams may be held on other campuses.)

Wednesday, July 1
Canada Day ➔ University closed.

Monday, July 4
Classes resume in Y & S courses.

Sunday, July 10
Last day to add S courses.

Monday, August 1
Last day to drop Y courses without academic penalty and have them removed from the transcript.

Monday, August 8
Last day to drop S courses without academic penalty and have them removed from the transcript.

Civic holiday ➔ University closed.

Monday, August 15
Last day to confirm intention to graduate at the 2011 Fall Convocation.

Saturday, August 27
2011 Winter deferred examinations.

Thursday, August 11
Last day to drop UTSC Y & S courses and have them remain on the transcript with a grade of LD indicating withdrawal without academic penalty. After this date, grades are assigned whether or not course work is completed (with a W assigned for incomplete work) and are calculated into GPAs. (Note: See www.utsi.utoronto.ca/registrarsite for LD dates for courses on other campuses.)

Friday, August 12 -
Final examinations in Y & S courses.

Saturday, August 27
2011 Fall Convocation. Check "Ceremony Dates" at www.convocation.utoronto.ca for the date of the UTSC ceremony.
### 2011 Fall Session

- **Tuesday, August 16**: Last day to pay fees.
- **Monday, September 5**: Labour Day → University closed.
- **Thursday, September 8**: Classes begin in F and Y courses.
- **Wednesday, September 14**: Last day for students writing deferred examinations in December to adjust their current course load.
- **Wednesday, September 21**: Last day to add F and Y courses.
- **Monday, October 10**: Thanksgiving Day → University closed.
- **Wednesday, November 16**: Last day to drop F courses without academic penalty and have them removed from the transcript. Last day of classes and last day for submission of term assignments in F courses.
- **Thursday, December 1**: Final exams in S courses. (Note: classes are held on this date only for courses that normally meet on a Friday. Study Break).
- **Friday, December 2**: Last day to drop UTSC Y courses and have them remain on the transcript with a grade of LWD indicating withdrawal without academic penalty. After this date grades are recorded on transcripts whether course work is completed or not (with a 'W' assigned for incomplete work) and they are calculated into GPAs. (Note: See www.utoronto.ca/registrar for LWD dates for courses on other campuses.)
- **Friday, December 6**: Last day of classes and last day for submission of term assignments in S courses.

### 2011 Summer deferred examinations.

- **Tuesday, December 7**: December break → University closed.
- **Tuesday, December 20**: Last day to confirm intention to graduate at the 2012 Spring Convocation.
- **Wednesday, December 21**: Final exams in F courses.
- **Sunday, January 1**: Last day to confirm intention to graduate at the 2012 Spring Convocation.
- **Tuesday, February 14**: Last day to drop UTSC F courses and have them remain on the transcript with a grade of LWD indicating withdrawal without academic penalty. After this date grades are recorded on transcripts whether course work is completed or not (with a 'W' assigned for incomplete work) and they are calculated into GPAs. (Note: See www.utoronto.ca/registrar for LWD dates for courses on other campuses.)

### 2012 Winter Session

- **Wednesday, November 30**: Last day to pay fees if enrolled in S courses only.
- **Monday, January 9**: Classes begin in S courses and resume in Y courses.
- **Sunday, January 15**: Last day for students writing deferred examinations in April/May to adjust their current course load. Last day to add S courses.
- **Sunday, January 22**: Last day to confirm intention to graduate at the 2012 Spring Convocation.
- **Tuesday, January 24**: Last day to drop Y courses without academic penalty and have them removed from the transcript. Family Day holiday → University closed.
- **Wednesday, January 25**: Reading Week → No classes held.
- **Monday, February 20**: Classes resume in S & Y courses.
- **Tuesday, February 21**: Last day to drop S courses without academic penalty and have them removed from the transcript. Good Friday → University closed.
- **Wednesday, February 22**: Last day of classes and last day for submission of term assignments in S & Y courses. (Note: classes are held on this date only for courses that normally meet on a Friday. Study Break).

### 2011 Fall deferred examinations.

- **Monday, April 9**: Final exams in S & Y courses.
- **Tuesday, April 10**: Last day to drop UTSC Y & S courses and have them remain on the transcript with a grade of LWD indicating withdrawal without academic penalty. After this date grades are recorded on transcripts whether course work is completed or not (with a 'W' assigned for incomplete work) and they are calculated into GPAs. (Note: See www.utoronto.ca/registrar for LWD dates for courses on other campuses.)
- **Monday, April 16**: Final exams in S & Y courses. Check "Ceremony Dates" at www.utoronto.ca/convocation for the date of the UTSC ceremonies.

- **Monday, April 30**: 2012 Spring Convocation. Check "Ceremony Dates" at www.utoronto.ca/convocation for the date of the UTSC ceremonies.

- **Sunday, April 15**: 2012 Spring Convocation. Check "Ceremony Dates" at www.utoronto.ca/convocation for the date of the UTSC ceremonies.
Examination schedules
Examination schedules are posted on the web at: www.atsc.utoronto.ca/Registrar as soon as they are finalized.
The date of posting is normally no later than:
- August examination period: Mid-July
- December examination period: Mid-November
- April examination period: Mid-March

Note: Examinations (including deferred examinations) and term tests may be held on any day of the week. Every effort will be made to avoid scheduling them on Sundays, however, U of T Scarborough reserves the right to do so if necessary.

Officials of the University of Toronto
A list of officials of the University of Toronto can be found at: www.governingcouncil.utoronto.ca/AssetFactory.aspx?did=3894

Senior Administrators of the University of Toronto Scarborough

Principal (U of T Scarborough) & Vice-President (U of T)
Franco J. Vaccarino, Ph.D.

Dean & Vice-Principal (Academic)
Rick Hulbert, Ph.D.

Vice-Principal, Research
Malcolm M. Campbell, M.A., Ph.D.

Vice-Dean, Graduate Education & Program Development
W.A. Gough, B.Sc., M.Sc., Ph.D.

Vice-Dean, Undergraduate
Professor John Scherk

Chief Strategy Officer
Andrew Arifuzzaman

Chief Administrative Officer
Kim McLean, B.A., M.B.A.

Dean of Student Affairs
Desmond Poynt, B.A., M.S.W.

Assistant Dean
Lesley Lewis, B.A., M.I.S.

Associate Dean
Liang H. Chen, B.A., M.S.E.D., M.B.A., Ph.D., FCPA

Registrar & Director of Enrolment Management
Currie Cole, Ph.D.

Director of Human Resource Services
Kim Richard, B.Sc., M.Ed.

Executive Director, Development and Alumni Relations
G. Zimny, B.A., M.B.A.

Chair, Department of Biological Sciences
Professor Greg Vanderberghe, B.Sc., M.Sc., Ph.D.

Chair, Department of Computer & Mathematical Sciences
Professor Vassos Hadzisavas, B.S.E., Ph.D.

Chair, Department of English
Professor C. Bohus-Reichert, M.A., Ph.D.

Chair, Department of Humanities
Professor William Bowen, B.A., B.Mus., A.R.C.T., A.R.C.M., M.A., Ph.D.

Chair, Department of Management
Professor Michiel Kushinsky, S.B., M.Sc., Ph.D.

Chair, Department of Philosophy
Professor P. Kremer, B.Sc., Ph.D.

Chair, Department of Physical & Environmental Sciences
Professor W.A. Gough, B.Sc., M.Sc., Ph.D.

Chair, Department of Psychology
Professor John Bassili, B.A., Ph.D.

Chair, Department of Social Sciences
Professor M. Hoffman, B.S., Ph.D.
U of T Scarborough Departmental Structure

Department of Biological Sciences:
- Applied Microbiology
- Biology
- Paramedicine

Department of Computer & Mathematical Sciences:
- Computer Science
- Mathematics
- Statistics

Department of English:
- English

Department of Humanities:
- African Studies
- Classical Studies
- Global Asia Studies
- History
- Humanities
- Intersections, Exchanges, Encounters in the Humanities
- Journalism
- Languages and Linguistics
- Media Studies
- New Media Studies
- Religion
- Visual and Performing Arts
- Women's and Gender Studies

Department of Management:
- Economics for Management Studies
- Management

Department of Philosophy:
- Philosophy

Department of Physical & Environmental Sciences:
- Astronomy
- Chemistry
- Environmental Science
- Environmental Science and Technology
- Physical Sciences
- Physics and Astrophysics

Department of Psychology:
- Neuroscience
- Psychology

Department of Social Sciences:
- Anthropology
- City Studies
- Diaspora and Transnational Studies
- Geography
- Health Studies
- International Development Studies
- International Studies
- Political Science
- Sociology

University of Toronto Scarborough: Past, Present & Future

The University of Toronto (U of T), founded in 1827, has degree-granting authority from the Province of Ontario. It is a member of the Association of Universities and Colleges of Canada, the Association of Commonwealth Universities, and one of only two Canadian members of the Association of American Universities. University of Toronto Scarborough (UTSC) is one of three campuses of U of T [St. George and University of Toronto Mississauga (UTM) are the others].

Since its founding in 1964 as a satellite undergraduate campus of U of T, UTSC has grown substantially. Today, it is equivalent to a comprehensive, mid-sized Ontario university and boasts a vibrant community of more than 10,000 students and nearly 700 faculty and staff.

UTSC is a unique option in the university sector. As an integral part of Canada’s leading research-intensive university, UTSC is a place where scholars contribute to cutting-edge knowledge in their fields, and where the finest students are taught by the finest professors. It is also home to a vibrant campus that is continually alive with engaging discourse and dynamic experiences. The high value UTSC places on interaction stems from its early beginnings as a small, close-knit campus.

Upon graduation, our students have earned one of the most rigorous and respected post-secondary degrees in the world. UTSC’s guiding philosophy is that the best university environment combines academic excellence with meaningful engagement. This is why experiential education is another important hallmark of our approach. We strive to give students a head-start on their future by enhancing their academic studies with the University’s only formal co-operative education program, in addition to opportunities such as internships, hands-on research, volunteerism in the community, and co-curricular participation in campus life.

The academic division at UTSC has nine departments: Biological Sciences, Computer & Mathematical Sciences, English, Humanities, Management, Philosophy, Physical & Environmental Sciences, Psychology and Social Sciences. The academic leaders are continuously introducing innovative programs that address the interests of today’s students and that reflect UTSC’s global perspective on an ever-changing world. Global Asia Studies; Mental Health Studies; Biodiversity, Ecology & Evolution; Health Studies and City Studies are a few examples of the unique programs found at UTSC. New graduate programs are also under development, the first to be launched is a Ph.D. in Environmental Science, which builds on the success of the Masters and undergraduate programs in this area.
UTSC offers five Joint Programs in collaboration with Centennial College: Journalism, New Media Studies, Paramedicine, Environmental Science & Technology, and Applied Microbiology. The Concurrent Teacher Education Program (CTEP) was introduced in 2007. This program draws on the expertise of UTSC, UTSC and six other academic partners, and integrates the study of education across a five-year period. At the end of their course of study at UTSC, graduates from CTEP will have earned a Bachelor's degree in Arts or Science and a Bachelor of Education degree.

Overlooking lush parkland in the east-end of Canada's most cosmopolitan city, UTSC's natural surroundings provide an increasingly important context and inspiration for learning. The spectacular built landscape reflects our contemporary mindset. And our physical campus is expanding space with our growing community. Between 2003 and 2010, the university invested in six new buildings valued at more than $122 million. Upgrades to teaching space and laboratories are continuous. In 2011, the campus will open the new Instructional Centre, which will increase its academic space by 25%. The new facility houses students in Management and Computer & Mathematical Sciences and features specialized labs, study and gathering space and a variety of lecture rooms all equipped with state-of-the-art technology. Meanwhile, a world-class aquatic and recreation facility is under development. The complex will operate as a partnership with the University and City of Toronto in perpetuity and will be a venue for the Toronto 2015 Pan American and Para Pan Games.

At UTSC, we are working together to find answers to tomorrow's most important questions: We are a community of active learners drawn from all over the world, determined to use what we discover through investigation, collaboration and experience to make our world a better place. This is how to prepare students for the best possible future. Because tomorrow is created here.

Writing at UTSC Scarborough

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.

It is the aim of the University of Toronto Scarborough 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 which are particular to their specific areas of study, but all are expected to help their students generate ideas, analyse their sources, and synthesise and interpret information in coherent forms of written expression. Some disciplines have identified writing-intensive courses which 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. Specialized programs and courses in academic writing are available to non-native speakers of English through English Language Development. The U of T Scarborough Writing Centre is available to every student. 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.

Academic Resources and Student Services

Academic Advising & Career Centre

The Academic Advising & Career Centre provides a comprehensive and integrated set of services to U of T Scarborough students. We help students become informed decision-makers and independent learners, to be motivated and goal-oriented - while maintaining a maximum degree of flexibility towards a range of academic and career goals. Our services include:

- Workshops and seminars on academic issues, learning skills, career and employment planning, research and management
- Individual appointments with career counsellors, employment coaches, academic advisors and peer counsellors
- Resource specialists who can provide information and referral
- Career Centre Online: access to electronic job postings for U of T students and databases for career information and international employment
- Special events, such as Experience UTSC, Professional and Graduate Schools Fair, Volunteer & Internship Fair, Summer Job Fair and International Experience Fair
- An interactive website: www.utsca.utoronto.ca/accc

Come see us in AC213 or phone 416-287-7561.
AccessAbility Services

University of Toronto's Statement of Commitment Regarding Persons with a Disability

It is the University's goal to create a community that is inclusive of all persons and treats all members of the community in an equitable manner. In creating such a community, the University aims to foster a climate of understanding and mutual respect for the dignity and worth of all persons.

In working toward this goal, the University will strive to provide support for, and facilitate the accommodation of individuals with disabilities so that all may share the same level of access to opportunities, participate in the full range of activities that the University offers, and achieve their full potential as members of the University community.

The University will work to eliminate or minimize the adverse effects of barriers, including physical, environmental, attitudinal, communication and technological barriers, which may prevent the full participation of individuals with disabilities in the University community.

The University will provide the members of its community with opportunities for education and access to information regarding disability and the University's policies on disability. At the same time, the University will endeavour to protect the individuals' privacy, confidentiality and autonomy.

The University reaffirms that all individuals are expected to satisfy the essential requirements of their program of studies or employment, while recognizing that students and employees with disabilities may require reasonable accommodations to enable them to do so. The University is, as always, committed to preserving academic freedom and its high level of academic standards.

The achievement of the University's goal depends on the participation of each and every member of the University community, including students, faculty, staff and alumni, as well as their respective representative organizations. Each of these parties has a role in creating an equitable and inclusive environment, as well as in the accommodation process and the identification, removal, and/or reduction of barriers. The consultative relationship among the members of the University community is based on a shared desire for an open, supportive learning and working environment, and a shared respect for individual rights and dignity.

In working toward its goals under this Statement, the University is committed to acting conscientiously and in keeping with its own policies and existing legislation related to disability.

Responsibility of Students Who Have Disabilities

Students who request accommodations for their academic programs and/or related activities at the University have the responsibility to disclose their needs in a timely manner to facilitate the implementation of support and services. It is vitally important that students discuss their needs as early as possible with the Service in order to put accommodations in place. Students must present relevant and up-to-date documentation, as outlined on the website, from an appropriate health care professional.

AccessAbility Services

Services are provided to students who have a mental health disability, a learning disability, sensory (hearing/vision), or chronic health condition (e.g. epilepsy, cancer, bowel disease) an acquired brain injury, attention deficit disorder, or a temporary disability (e.g. a broken femur). Students who register and utilize the services will not be identified on their transcript as receiving accommodations. Information disclosed to the service is confidential and is disclosed with the student's permission.

The service provides a wide range of support, including:
- Learning disability assessments
- Assistive technology assessments and equipment
- Learning strategy support
- Test and examination accommodations
- Note taking services
- Sign language interpreters; computerized note-taking
- Advice and information on disability issues
- Liaison to University and off-campus agencies

Voice/TTY: 416-287-7560
Room: SW 302
Email: ability@utoronto.ca
Website: www.atic.utoronto.ca/ability

Athletics & Recreation

Our mission is: “We strive to create a respectful and inclusive environment that promotes opportunity and overall well-being through physical activity.” The focus of the Department is to encourage participation in a broad spectrum of programs and activities. We offer various combinations and levels of intramural sports, inter-house leagues, tournaments, recreational play, instruction, and special events to promote skill development, leadership, social interaction and enjoyment for an active, healthy lifestyle.

Facilities:
- Co-ed fitness/wellness training facility "THE KEY" and the Cardio Theatre space, Cycle-fit Room; The Palladium Gymnasium - a double gym for basketball, volleyball, badminton, ball hockey, indoor soccer, indoor cricket etc.; Teaching Studio - for instructional and fitness classes. Athletics Lounge - study space, table tennis, seven air-conditioned North American squash courts, Golf "practice tee";
- Varsity Blues Baseball Diamond, new Softball/Cricket pitch, two multi-purpose outdoor playing fields and eleven outdoor tennis
12 Academic Resources and Student Services

courts in the valley; locker/shower areas - including men’s and women’s; athletic service counter offering program and membership information as well as playing equipment rentals and various supplies.

Hours:  Monday - Friday - 7:45 a.m. - 10:30 p.m.
        Saturday - Sunday - 7:45 a.m. - 4:00 p.m.
(Hours are adjusted during exam periods, Winter holidays & summer months.)

Main Office:  R267
General Info:  416-287-7099
E-mail:  athletics@utsc.utoronto.ca
Website:  www.utsc.utoronto.ca/athletics

Department of Student Life

The Department of Student Life strives to enhance the student experience at U of T Scarborough and provide our campus community with meaningful opportunities for development within an anti-oppressive framework. Our programs aim to engage students in expressive dialogue and challenge assumptions about themselves and the world around them.

The Department of Student Life offers opportunities to network on-campus and build meaningful connections with the surrounding community.

The Department of Student Life supports students in their personal and academic success. Our Peer Education Model aims to empower students to take control of their own development and growth as leaders. Our programming engages and supports students during every step of their university career and beyond. First year will bring the welcome of Orientation events, the guidance and support of the First Year Experience Program, and the exploration that comes with the CONNECT First Year Leadership Certificate. Subsequent years offer the continued opportunity to engage in the over 100 annual activities connected to the Leadership Development Program including development seminars, Perspectives on Leadership, Global and Community Leadership Series, inside the Leader’s Circle, and Dialogues. Outreach initiatives such as the IMANI Mentorship Program, the Alumni Mentorship Program, the First Generation Project and Reading Week outreach activities connect students within the broader community.

The Department of Student Life also provides official recognition and support in over 100 student organizations, and serves as the primary liaison between student organizations and the University. The Department provides the campus’ student leaders with professional advice in the areas of organizational development, project management, event planning, budgeting and sponsorship, success planning and more. The Department also administers the U of T Scarborough Letter Awards and the Campus Life Awards.

For more information on the Department of Student Life, please visit our website.

Contact Information:
Student Centre, SL-157
Phone: 416-287-7099
Email: studentlife@utsc.utoronto.ca
Website: www.utsc.utoronto.ca/studentlife

Health & Wellness Centre

Hours:  Monday - Friday - 9:00 a.m. - 4:45 p.m.
Room #:  SL270 (Student Centre)
Phone #:  416-287-7063
E-mail:  health-services@utsc.utoronto.ca
Website:  www.utsc.utoronto.ca/wellness

We are your convenient and confidential medical clinic on campus - much like your family doctor’s office.

• Health Care: Provided daily by physicians and nurses for the treatment of minor illnesses, first aid, pregnancy tests, annual check-ups, birth control prescriptions and sales, STI tests including HIV/AIDS, immunizations, and over-the-counter medications for colds and headaches. Appointments are recommended and walk-ins are accommodated. U of T Scarborough international students may pick up their USIP cards here.

• Personal Counselling: Our staff includes a social worker, a psychotherapist, a psychologist, a psychiatrist, and a physician-counsellor. Each of these counsellors is trained to help with family problems, relationships, crisis counselling, anxiety, depression, stress management, sexuality, bereavement, and eating disorders.

• Health Promotion: Aimed at supporting healthy life style choices, it is an integral part of the services, and the staff often collaborates with other student services such as Physical Education & Athletics to further enhance the quality of our outreach programs.

Information & Instructional Technology Services

Website:  http://its.utsc.utoronto.ca
IITS Faculty/Staff Help Desk  416-287-7618
IITS Student Support Office  416-287-7391
ITS is responsible for information technology and audio visual services at U of T Scarborough. ITS designs and maintains the campus computer network and core IT services, provides campus-wide Help Desk support, advises on customized IT solutions, and supports equipment in electronic classrooms and videoconferencing facilities. For students, ITS provides network connectivity in student residences and maintains wireless network on campus. ITS administers over 500 public workstations in 10 computing labs and in Informatics Commons. Over 100 computer workstations are available 24/7. Users can also find computing kiosks dispersed throughout the campus for an easy access to information.

International Student Centre at U of T Scarborough
The International Student Centre (ISC), Department of Student Life, serves and supports international and internationally-minded students at U of T Scarborough. The ISC at U of T Scarborough is an inclusive and positive space where students of all backgrounds can find community and benefit from information, programs and services.

We offer programs and services for students in the following areas:
- **International Students, Exchange Students & Newcomers to Canada**
  Advising and referral on Citizenship & Immigration Canada regulations, international student advising, tax filing assistance, orientation and transition activities for new students, health insurance support, cultural programming, and referrals to university and community services.
- **English Conversation Partners (ECP)**
  This service provides students with an opportunity to improve verbal communication skills and confidence in conversational English in a fun, safe and non-academic setting.
- **First Year Experience Program (FEP) for International Students**
  FEP allows new international students to learn about, and become adjusted to, university life at U of T Scarborough. New students will develop a network of friends and resources on campus. Student Mentors will assist new international students with their academic, social and cultural transition to U of T Scarborough.
- **Study Abroad**
  Information about U of T recognized opportunities to study in another country and earn credit towards your degree. Visit the ISC for information on Student Exchange, Study Elsewhere, Summer Abroad or the Explore Program.

Contact Information:
Location: Student Centre, SL 151
Tel: 416-287-7318
Email: isc@utsc.utoronto.ca
Web: www.utsc.utoronto.ca/isc

Our programs and services are open to all University of Toronto students. For more information about the ISC visit our website.

Library (U of T Scarborough)

- Website: [http://main.library.utoronto.ca/utsc](http://main.library.utoronto.ca/utsc)
- Library Circulation & Loans: 416-287-7482
- Library Reference Desk: 416-287-7481
- Library Information Line: 416-287-7500 (pre-recorded information)
- Library Research & Instruction: 416-287-7499 or 416-287-5665 (appointments)
- TC Card Office: 416-287-2960

Instruction
The expert team of Librarians assists students with their assignments and research. In particular, students may meet with a Librarian to receive personalized research assistance. Classroom and group instruction are also available by appointment.

Library Hours
Hours vary during the term. The Library offers 24 hour service during midterms and exam periods. Please check the website or phone 416-287-7900.

Collections
The Library’s vast array of resources in electronic, print and other formats (maps, slides, CD-ROMs, DVDs, films, etc.) support U of T Scarborough’s curriculum and research needs. Many course items, both electronic and print, are available through course reserves. Library materials held at other U of T libraries are just a click away in the Library catalogue.

Study space
Students are invited to use the library for research and study purposes. A variety of study spaces is available to suit your requirements: ubiquitous wireless access, quiet, single study carrels, group tables, group study rooms, ultra-quiet study space and media viewing facilities. The Library’s Sun Informatics Commons features over 100 networked workstations providing access to electronic collections held by the University of Toronto Libraries.
Academic Resources and Student Services

T-Card
The TCard Office, located in the Library, issues TCards for faculty and staff, re-issues student TCards, and handles the cash-to-card transactions.

N’sheemahn: Child Care Centre
Hours: Monday - Friday – 7:30 a.m. - 6:00 p.m.
E-mail: childcare@ustc.utoronto.ca
Website: www.ustc.utoronto.ca/childcare

Your child can be as close as your next lecture hall at N’sheemahn (pronounced Nob-shay-mahn) located on the U of T Scarborough grounds. The Centre was constructed with children in mind. Its large, low level windows invite the natural environment inside and through which the children watch for birds, squirrels, raccoons and deer. Child size furniture, equipment, sinks and toilets enable children to develop independence and self-esteem.

The centre provides care and education for 54 children from birth to five years of age. Every day, children learn through play in a professional, nurturing, stimulating and safe environment. Children develop co-operative, empathetic, and negotiating skills and strategies to thrive today, and throughout their lifetime.

Meals and snacks are provided by an onsite chef, with attention to how they taste, look, and how nutritionally sound they are for growing and developing children. Allergies and food restrictions are accommodated.

This non-profit Centre is governed by a Board of Directors made up of volunteer parents and two U of T Scarborough appointees. Assistance with fees is available through a bursary for U of T Scarborough students, as well families can apply for a child care subsidy from the City of Toronto, Children’s Services. For more information about the Centre please visit our website or contact the Director, Joanne Quinn at 416-287-7624 to arrange a tour.

Office of the Registrar
The Office of the Registrar, located on the ground floor of the Arts & Administration Building, includes Admissions & Student Recruitment, Financial Aid & Awards Office and Registrarial Services.

Admissions & Student Recruitment
Office: Room AA128
Telephone: 416-287-7529
Website: www.ustc.utoronto.ca/admissions
Interactive FAQ Service: www.ustc.utoronto.ca/askus
Admissions & Student Recruitment coordinates off-campus recruitment activities and on-campus special events for prospective students. It also provides information and admission counselling for applicants, issues transfer credits and eligibility for admission.

For a full description of procedures and policies, see the section on Admissions in the closing section of the Calendar.

Financial Aid & Awards Office
Office: Room AA142
Telephone: 416-287-7001, Press 1
Website: www.ustc.utoronto.ca/registrar

The Financial Aid & Awards Office (FAO) provides on-site financial aid services for full-time students and helps them access programs to help them pay for their education costs.

Financial aid programs for part-time students are administered through the Financial Aid Office at the St. George campus, however, our FAO handles inquiries and provides a full range of assistance.

Students who receive student loans from other provinces can access assistance and support from our office.

Appointments to speak to a Financial Aid Advisor are available Monday through Friday and can be made through eService (on the Registrar’s website).

We help students with processes relating to:
- Ontario Student Assistance Program (OSAP)
- Summer Work Study Plan
- UTAPS and bursaries
- In-course scholarships and awards
- Emergency situations (of a financial nature)
- Financial counseling: budgeting and payment plans, etc.

Registrarial Services
Office: Room AA128
Telephone: 416-287-7001
Website: www.ustc.utoronto.ca/registrar
Student Web Service: www.zos.utoronto.ca
Interactive FAQ Service: www.ustc.utoronto.ca/askus
Office of Student Affairs
Student Affairs supports student success. We strive to cultivate the intellectual and personal development of students within a community based on principles of mutual respect and inclusion.

The Student Affairs and Services division includes the following departments:

- Academic Advising & Career Centre
- Accessibility Services
- Health and Wellness Centre
- Department of Student Life & International Student Centre
- Athletics and Recreation
- Office of Student Affairs
- Student Housing and Residence Life

The Office of Student Affairs provides administrative oversight and accountability to all departments within the division. It upholds the values of the community held mission statement and advises and seeks advice from student societies and the Council on Student Services (CSS) and advocates on issues of student concern to the Vice-President & Principal. The office offers support for a variety of initiatives, assists students in academic or personal difficulty, offers guidance to students planning events and responds to student queries and referrals. The Office also provides specialized IT support to departments and some student initiatives. The Dean of Student Affairs also chairs the Academic Student Travel & Conference Fund. The Dean is a member of College Council, Planning & Budget and Academic Committee. The Dean is also a member of the Principal’s Executive Group.

Contact Information:
Room: Student Centre, SL-157
Phone: 416-288-4760
Email: staff@uotec.utoronto.ca
Website: www.uotec.utoronto.ca/staff

Office of the University Ombudsperson
As part of the University's commitment to ensuring that the rights of its individual members are protected, the University Ombudsperson investigates complaints from any member of the University not handled through regular University channels. The Ombudsperson is independent of all administrative structures of the University and is accountable only to Governing Council. In handling a complaint, the Ombudsperson has access to all relevant files and information and to all appropriate University officials. All matters are in strict confidence, unless the individual involved approves otherwise. The Ombudsperson offers advice and assistance and can recommend changes in academic or administrative procedures where this seems justified. For additional information, please visit our website at: www.utoronto.ca/ombudsperson

The services of the Office are available by appointment at all three UToronto campuses. Please phone 416-946-3485 or e-mail us at ombuds.person@utoronto.ca.

Scarborough Campus Students' Union (SCSU)
Telephone: (416) 287-7047
Email: info@scsu.ca
Website: www.scsu.ca

The SCSU is your elected student body, representing all students at the University of Toronto Scarborough. It advocates on behalf of students on issues such as the cost of education, academic issues and ensuring the student voice is best represented their needs and concerns, whether it be the talk of having more diverse events on campus or advocating for more study space. Some of the student union’s services include:

- Lockers, Club Space, Discount Movie tickets, TTC Metropasses
- Printing & Photocopying
- Student Agenda, Anti-Calendar, Prayer Space
- Course Textbook Reserve Service, Tax Clinics
- SCSU Health & Dental Plan

A growing number of important health-care services are not covered by provincial health care. The Plan is a service provided by the Scarborough Campus Students' Union (SCSU) to fill the gaps in government health care. All full-time UTSC students are automatically covered, including international and Co-op students on Academic Session. Co-op students on Work Session are not covered, but can enrol themselves during the Change-of-Coverage Period. Part-time students, graduate students, and students on exchange from another university are not covered and may not enrol in the Plan.
The SCSU Health and Dental Plan's Health, Vision and Travel Benefits include prescription drugs, physical therapy, chiropractic, massage therapist, vaccinations, medical equipment, eye exam, costs for using the Health & Wellness dispensary, travel health coverage, and more. The Dental Benefits include checkups, cleanings, x-rays, and extractions. For a complete list of benefits, visit www.scsuhealthplan.ca or call Member Services Centre at 1-866-369-8797.

Sexual Harassment Office
The University's Sexual Harassment Policy covers harassment based on sex and sexual orientation and applies to students, staff, and faculty members. The University of Toronto does not tolerate any form of sexual harassment and is actively endeavouring to provide an environment free of it. All forms of sexual harassment, from verbal abuse to unwanted touching to homophobic insults are covered by the University's policy. The Sexual Harassment Office provides education to the community, administers the formal complaint procedure and offers non-partisan advice and counsel to those involved in the complaint process. Contacting the Sexual Harassment Office is not a commitment to filing a complaint; people can contact the office on an anonymous basis simply for advice. All complaints and requests for information are kept completely confidential unless the individuals involved agree otherwise. Members of the University of Toronto Scarborough may arrange an appointment at U of T Scarborough with the Sexual Harassment Officer or may go to the St. George campus, whichever is more convenient. For an appointment, information, to arrange educational or to file a complaint, contact the Sexual Harassment Office (telephone 416-978-5998). Further information is available at www.utoronto.ca/sdo. For information about online harassment go to www.crough.utoronto.ca.

Student Housing & Residence Life
The University of Toronto Scarborough residence system offers you a comfortable home away from home. Our mission is to provide students with a "living and learning" environment that supports the academic mission of the university and offers students a variety of opportunities to enhance their university experience both inside and outside the classrooms. The Residence Life program is designed to assist students with the transition to university and to support their success throughout their time on campus. We strive to foster a learning community committed to a high standard of mutual respect and understanding that celebrates diversity.

Our community is supported by Residence Advisors, senior students living in residence, who serve as a community support network that strives to make the residence environment enjoyable, relaxing, and conducive to learning. The Student Residence Council is also a group of student leaders in residence who organize events and services for residents. Our fully furnished townhouses and apartments with well-equipped kitchens, are located minutes from the academic buildings and the Residence Centre (RC), our large, furnished common area. There are 114 self-contained townhouses and 55 self-contained apartments, accommodating 767 students, with four to six students in each house and four students in each apartment suite. Single and shared bedrooms are available. Houses and apartments are assigned on a first-come, first-price basis for new students. Common laundry rooms are available in each residence. Five houses and one apartment are specially designed to barrier-free accommodation for students with Accessibility requirements.

Residence is guaranteed to all full-time first-year students who are offered admission and who respond to all residence application deadlines and meet all deposit requirements. Part-time students and those who receive late offers are advised to contact Student Housing & Residence Life for further information although there is no guarantee that they will receive accommodation on campus. Accommodation is available for fall, winter and summer sessions. We encourage you to visit the campus during the summer and to tour residence.

For more information, contact:
Student Housing & Residence Life, University of Toronto Scarborough, 1265 Military Trail, Toronto, ON, M1C 1A4
Telephone: 416-287-7365
Fax: 416-287-7607
E-mail: residences-office@utsc.utoronto.ca
Web site: www.utsc.utoronto.ca/residences

The Centre for Teaching and Learning
Website: www.utsc.utoronto.ca/cft/index.html

CTL General Information 416-287-7504
English Language Development 416-287-7502
Faculty Teaching Consultation 416-287-7500
Facilitated Study Groups 416-287-7504
Educational Technology 416-287-7520
Math & Statistics Learning Centre 416-287-5567
Information Literacy Research Skills & Instruction 416-287-7208
Presentation Skills 416-287-7509
Service Learning 416-287-7357
Teaching Assistant & Graduate Student Support 416-287-4767
WebOption 416-287-4775
Writing Centre 416-287-7480
The Centre for Teaching and Learning works with faculty, students, teaching assistants and staff to promote, support and enhance teaching and learning at U of T Scarborough.

For students, CTL addresses a diversity of student needs by supporting the student learning process. This includes Service-Learning, Facilitated Study Groups, Writing Support (The Writing Centre), Information Literacy, Research and Presentation Skills, and skill development in Quantitative Analysis - mathematics, statistics and data interpretation (via the Math & Statistics Learning Centre), as well as a wide array of English Language Development programs to strengthen oral and written communication skills. Individual appointments are supplemented with drop-in help sessions, editing clinics, group seminars, workshops and online resources. Summer Learning Institutes assist newly admitted students to make a successful academic transition to U of T Scarborough.

CTL assists faculty with all aspects of course design and implementation, and can include in-course presentations. Core expertise is available for help with (1) Teaching Best practices, (2) Teaching Assistant Training, (3) Lecture Capturing, (4) Assignment design/implement/marking strategies in oral and written communication, data analysis, research and information literacy, and professional development as a teacher. CTL also supports innovative faculty projects that facilitate improved learning outcomes. Services include faculty orientation programs, dossier construction assistance, teaching consultations, lunch-time lecture series, teaching grants and awards, publications on teaching and learning, and support for teaching and learning scholars.

For teaching assistants, CTL provides an annual TA conference, teaching consultations and a program of seminars and workshops that lead to a certificate through the Teaching Assistants Training Program (TATP).

**University of Toronto Scarborough Community Police**

A Special Constable Service

Office Location: SW304 (Science Wing)

Emergency: 416-287-7333

General: 416-287-7398

E-mail: communitypolice@utsc.utoronto.ca

Website: www.utsc.utoronto.ca/police

UTSC Patrol (formerly Walk Safe): 416-287-7022

U of T Scarborough Community Police are dispatched by the Communications Centre on the St. George campus. Please specify that you are calling from U of T Scarborough and be specific about your location.

The members of the U of T Community Police are Special Constables. They are sworn peace officers who are on duty 24 hours a day, 365 days a year to serve the University community. They work in partnership with the University community to provide a safe and secure environment in which to carry out daily activities.

The U of T Scarborough Community Police is the initial response agency for all emergencies and crises occurring on the Scarborough campus and should be notified immediately of any situation that jeopardizes the safety of any community member, or that threatens to disrupt the operations of the University.

The U of T Scarborough Community Police should be informed of **All** matters involving threats to personal safety and security, violations of federal, provincial or municipal laws or University policies.

Examples of these would include:

- Attempts to injure others or self
- Medical emergencies
- Alcohol related emergencies
- Threats
- Assaults
- Noise complaints
- Damage to property
- Theft of property
- Possession of drugs or weapons
- Any other situation that looks suspicious or causes concern.

The U of T Scarborough Community Police co-ordinate community and safety programs such as the UTSC Patrol, and the Lone Worker Program. The UTSC Patrol Program will provide you with an escort to any part of the campus at any time of day or night, including to or from your vehicle or public transportation. The Lone Worker Program will assist you in being comfortable working on any part of the campus at any time. The UTSC Special Constable Service also issues Crime Alerts and Community Information Bulletins and provides crime prevention and personal safety education and consultation. These bulletins are also listed on the UTSC Campus Police website at www.utsc.utoronto.ca/police.

In an emergency on campus the Special Constables can be contacted by calling 416-287-7333 or for non-emergency matters at 416-287-7393. The U of T Community Police can also provide pay duty officers to address security concerns for all special functions.

**Degrees**

University of Toronto Scarborough students may earn an Honours Bachelor of Arts, an Honours Bachelor of Science or a Bachelor of Business Administration degree after completing the appropriate requirements listed below. In doing so, students are expected to adhere to the rules and regulations outlined in this Calendar. (Students who first registered at U of T Scarborough prior to the 2004 Summer Session may elect to receive a B.A. or a B.Sc. degree after having completed the requirements for a three-year (fifteen-credit) degree.)
Students in their graduating year who intend to take part in the next Convocation must notify the Registrar’s Office of their intention either through ROSI or on a confirmation of graduation form by the deadline listed in the Sessional Dates section of this Calendar.

Degrees are conferred at university convocations, held twice annually: the Spring Convocation held in June and the Fall Convocation held in November. Students who have confirmed their intention to graduate will be sent an email to their UTORID account with information about their request and important dates and times in March for the June Convocation and in October for the Fall Convocation. Final confirmation letter will be mailed, from the Office of the Vice-President, University of Toronto, Principal, U of T Scarborough. This letter is sent in mid to late May for June Convocation and in early November for November Convocation. For detailed information about Convocation, please refer to the Registration Guide and www.utoronto.ca/registration.

To determine if you have met degree and/or program requirements, login to Degree Navigator at www.roi.utoronto.ca. For more information about Degree Navigator see the Student Web Service section of this Calendar.

Degree Requirements
The following requirements apply to all degree students who first completed courses as University of Toronto Scarborough degree students in the 2010 Summer Session or in a subsequent session.

To qualify for the degree, students must:
1. Pass at least twenty full credits.
2. Of the twenty credits, at least six full credits must be at the C-level and/or D-level, with at least one full credit at the D-level.
3. Of the twenty credits, at least one half credit must come from each of the following five breadth categories. (See the course description for the category to which the course belongs):
   a. Arts, literature and language
   b. History, philosophy and cultural studies
   c. Social and behavioural sciences
   d. Natural sciences
   e. Quantitative reasoning
4. Programs.
   a. For a Bachelor of Business Administration, complete a specialist program in Management or in Economics for Management Studies.
   b. For an Honours B.A. or an Honours B.Sc., complete:
      i. one Specialist Program, or
      ii. two Major Programs, or
      iii. one Major Program and two Minor Programs.
5. Combinations of programs used to meet the program requirement must include at least twelve different full credits
6. Earn a cumulative grade point average of at least 1.60.

Note: Only Programs offered by the University of Toronto Scarborough may be used to fulfill degree requirements.

Honours B.A. and Honours B.Sc. Degrees
The type of Honours degree students receive is determined by the Program(s) completed. See the program list in the Guide to Programs and Courses Offered for the type of degree towards which each Program leads. Students must monitor their own progress to degree completion.

- In order to receive a B.Sc., students must complete one of the following: One specialist, one of the two majors or two minor programs in the sciences.
- In order to receive a B.A., students must complete one of the following: One specialist, one major or two minor programs in the arts.
- Students who fulfill more than one requirement may select which degree they will receive.

Graduation with High Distinction and with Distinction
University of Toronto Scarborough students who have completed at least ten full credits while registered at University of Toronto Scarborough will graduate with high distinction if their cumulative grade point average is 3.50 or better and will graduate with distinction if their cumulative grade point average is between 3.20 and 3.49. Other students with a cumulative grade point average of 3.20 or better will be considered on an individual basis.

Transfer Students
Students transferring to the University of Toronto Scarborough are required to complete at least half of their credits and half of their Program requirements as University of Toronto Scarborough students. Students transferring from other divisions of the University of Toronto are exempt from this requirement.

Students begin their degree program at UTSC:
- Prior to the 2010 Summer Session, should refer to the degree requirements outlined in the 2009/2010 Calendar
- Prior to the 1989 Summer Session may, if they wish, complete the degree requirements outlined in the 1988/1989 Calendar.
Programs of Study

Three-Year Degree
UTSC has discontinued the three-year degree. Students who began their degree program at UTSC prior to the 2004 Summer Session may still choose to complete a three-year degree. For three-year degree requirements, see the 2006/2007 Calendar.

Upgrading Three-Year Degrees
For information on upgrading three-year degrees, see the 2006/2009 Calendar.

"Second Degree" Requirements
Students beginning a second degree are normally exempted from first year of the degree requirements by being granted five (5.0) credits, regardless of the number of previous degrees. Students who hold a B.A., B.B.A. or B.Sc. from the University of Toronto will be considered for admission to a second degree Program only of a different type (e.g. students with a B.A. degree may only complete a B.B.A. or B.Sc. degree). Application for admission to a second degree Program is made through the Assistant Registrar. Admissions. 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.

Certificate Program in Business
Students in this program must complete the following in order to qualify for the Certificate in Business:
2. Earn a cumulative grade point average of at least 2.00.
Students in their graduating session who intend to take part in the next Convocation must notify the Registrar’s Office of their intention either through ROSI or on a confirmation of graduation form by the deadline listed in the Sessional Dates section in this Calendar.
University of Toronto Scarborough certificate students will graduate with honours if their cumulative grade point average is 3.20 or better.

Non-Degree Students
"Non-degree students" are students registered in degree courses at the University of Toronto Scarborough:
• 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.

Programs of Study
Programs are groupings of courses in one or more disciplines. Degree students must select and register in a Program or Programs following the session in which they receive their fourth credit. (Note: Some Programs have limited enrollment. See the Program descriptions for admission requirements or speak to the Program Supervisor.) A list of Programs may be found in the Guide to Programs and Courses Offered section of this Calendar. Only programs offered by the University of Toronto Scarborough may be used to meet the degree requirements.

Note: Successful completion of a program does not in itself ensure successful completion of the degree requirements. See the Degrees section of this Calendar.

Specialist Programs
Specialist Programs normally consist of twelve to sixteen full credits, including at least four full credits at the C- and/or D-level, of which one full credit must be at the D-level. They 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.

Major Programs
Major Programs normally consist of seven to eight full credits, including at least two at the C- and/or D-level. They are designed to provide concentration in an area of study defined as a discipline, a group of disciplines or a particular theme or area of study.

Minor Programs
Minor Programs which consist of four full credits, including at least one full-credit at the C- and/or D-level are designed to provide study in a specific area for students desiring wide-ranging but coherent Programs of study in different areas of the curriculum.

Approved Individual Programs
Students may propose individual Programs of study, other than those described in this Calendar. Such proposals will be considered favorably only from students with cumulative grade point averages of 3.5 or greater. To be approved, individual Programs should specify four full credits for a Minor Program, six to eight full credits for a Major Program and ten to fourteen full credits for a
Specialist Program. The courses should all be offered at U of T Scarborough and should form a logical program. The student should offer a rationale for the proposal. Proposals should be made to the Vice-Dean and must be submitted at least eight months prior to the session in which the student expects to graduate.

Co-operative Programs
Co-operative programs are enrichment Programs designed to integrate related, practical experience with regular University studies. All Co-operative Programs are either Specialist or Major Programs and may be taken only as part of a four-year degree. Major Co-operative Programs must be combined with another Major Program. Academic credits associated with the successful completion of work-term requirements are additional to the 20.0 normally required for a degree. For this reason, some Co-operative Programs may take up to five years to complete.

Joint Programs
Joint programs are offered in collaboration with Centennial College. All Joint Programs are either Specialist or Major Programs and may be taken only as part of an Honours degree. Joint Major Programs must be combined with another Major Program or two Minor Programs. In most cases, students also have the opportunity to qualify for a diploma or certificate from Centennial College, which may require one additional academic session. See specific program descriptions for more details.

Course selection and registration for Programs of study
1. Students are responsible for ensuring that 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 in necessary. In all Programs, the supervisor is available for advice concerning Program requirements and course selection.
2. While students with fewer than 4.0 credits are not required to select a Program, they should, when selecting their courses, consider carefully the requirements of any Programs they may later choose to follow. Supervisors, instructors in A-level courses and academic advisors may be consulted for assistance.
3. Students who have registered in a Program should consult annually with the supervisors of their Programs to ensure that their course selection will meet Program requirements.
4. Students must register in their Program(s) following the session in which they attain their fourth full credit.

Note: Successful completion of a program does not in itself ensure successful completion of the degree requirements. See the Degrees section of this Calendar.

Program Transfers
Students who wish to transfer from one Program to another after classes have started should discuss the proposed transfer with the supervisor of the new Program and notify the Registrar's Office of the change through ROSI.

Certification of completion of Programs
Completion of Programs is certified when the degree is confirmed. Certification is given only for University of Toronto Scarborough 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.

When Program requirements are changed, students may elect to satisfy the requirements in effect when the student first completed courses at U of T Scarborough or subsequent requirements if the student finds them more favourable. However, U of T Scarborough reserves the right to require substitution for courses which are no longer offered.

Regulations concerning Programs of study
1. Students may register in no more than three Programs at any one time (including no more than two Majors and/or Specialist) and may receive certification of completion of no more than three Programs:
2. Students may register in no more than one limited enrollment Specialist Program at any one time.
3. Students may register in no more than one Co-operative Program at any one time.
4. Where a student completes the requirements of a Minor Program and subsequently chooses to complete a Major or Specialist Program in the same area, the student may use the courses already accredited to the Minor Program to fulfill the requirements of the Major or Specialist Program. Upon successful completion of the additional requirements, any previous certification of the Minor Program will be superseded on the student's transcript by certification of the Major or Specialist Program.
5. Where a student completes the requirements of a Major Program and subsequently chooses to complete a Specialist Program in the same area, the student may use the courses already accredited to the Major Program to fulfill the requirements of the Specialist Program. Upon successful completion of the additional requirements, any previous certification of the Major Program will be superseded on the student's transcript by certification of the Specialist Program.
6. Supervisors have the authority to deal with special circumstances concerning Program requirements. They may:
   • accredit to Program requirements, courses 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.
7. Students should note that certain Programs will require them to take some of their courses on the St. George Campus. However, only University of Toronto Scarborough Programs may be used to meet degree requirements.
8. Students intending to enrol in any course on another campus which they intend counting towards their Program should consult with their Program Supervisor first.
Co-operative Programs

General Information
Co-operative Programs are enrichment programs designed to integrate related, practical experience with academic studies. All co-op programs are either Specialist or Major Programs and may be taken only as part of a four-year degree. Major Co-op Programs must be combined with another Major program. Academic credits associated with the successful completion of work-term requirements are additional to the 20.0 normally 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 U of T Scarborough in order to maintain their co-op status. For a listing of co-op programs, the academic supervisors, and the sponsoring academic Department, see the Guide to Programs and Courses Offered section of this Calendar.

Admission to Co-op Programs
In most cases, students may apply to enter co-op programs either directly from secondary school or after their first year of university study.

Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post-secondary institution, applicants must indicate the special code for the program on the Application for Admission to an Ontario University. See the Admissions section of this Calendar for deadlines.

Once U of T is notified of the application, applicants are given information about documents required to support it. Co-op programs require a Supplementary Application available at the Admissions and Student Recruitment website: www.utm.utoronto.ca/admissions.

Enrolment in co-op programs is limited. Admission is granted on the basis of applicants’ academic performance and their interest, experience and potential ability. The Supplementary Application will indicate what information is required in addition to the academic record and it may include a statement of interest, information about volunteer and work experience and extracurricular activities.

In some cases, an interview may be conducted, either in person or by telephone.

Current U of T Scarborough Students: For the minimum qualifications for consideration for entry into Co-op Programs following First Year, see the individual co-op program entries elsewhere in this Calendar. Application procedures can be found at the Registrar’s Office website: www.utm.utoronto.ca/subjectpost

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 the additional costs associated with the administration of work terms and are calculated in accordance with Ministry of Education and University of Toronto policies. However, no tuition fees are charged when registering for the work-term nor are there any additional fees associated with the required non-credit co-op work term preparation course. If a student leaves the program for any reason, co-op fees paid in earlier sessions are not refundable.

Program Requirements
Co-op programs require at least eight four-month terms of full-time study, and the satisfactory completion of two or three four-month work terms, as specified by the particular program. Work terms are evaluated by program faculty, the Co-op Office, and the employer, and 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 maintain good standing in a co-op program, to be eligible for a work term, and to receive certification for its completion on graduation, a student must:

• Meet all of the normal requirements for the Honours B.A., Honours B.Sc., or B.B.A. degree;

• Follow the course of studies described for the specific program;
Joint Programs with Centennial College

- Complete the non-credit co-op work term preparation course and any other prerequisites for the work term as required by the specific program;
- Maintain a cumulative grade point average (CGPA) of at least 2.50 (note that this is higher than the CGPA of 1.50 required for good standing in regular non-co-op programs);
- Receive a satisfactory evaluation for work term performance and work term reports;
- 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 study after each work term;
- Report co-op fees as assessed by the University.

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

Status in Co-op Programs

- Status in a co-op program will be determined at the end of each session (Fall, Winter, and Summer) for students who have attempted at least three full credits since beginning their studies at the University of Toronto Scarborough or in other arts and science divisions of the University.
- Students who have attempted at least three full credits and have a cumulative GPA (CGPA) of less than 2.50 but of 2.30 or more are placed on probation in the co-op program (i.e., they remain in the program subject to certain conditions). Students may clear probation by achieving a CGPA of 2.50 or better in the next study session.
- Students may continue on probation by achieving a sessional GPA of at least 2.50 in the next session. Students must clear their probation within 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 2.50 after having secured a job placement through the placement process, the student will be permitted to complete the work term; such a student will be permitted to participate in the next recruitment process only after successfully clearing probation.
- Students who have attempted at least three full credits and have a CGPA of less than 2.30, or who have failed to clear probation within two study sessions, will be removed from the co-op program.

Introduction to Co-op Work Term Preparation Course

During their first year of enrollment in a co-op program, students will participate in a non-credit co-op work term preparation course designed to pre-prep them for their work term experience and to maximize the benefits to be obtained from the associated learning opportunities. The tutorial will cover a variety of topics to help students develop the skills and tools needed to secure work placements appropriate to their program of study, and to perform professionally in the workplace. Satisfactory participation in this preparation course is required before students may go on work terms. No academic credit is given for the course and no fee is charged. For the name of the course appropriate to each program, see the relevant program description.

Work Terms

Work terms are an integral part 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 skills that are important in the academic programs. Work term opportunities are arranged by the Co-op Office for the program, but must be won by students in competition with all applicants for the position. While on a work term, students remain in contact with the University, and prepare for the submission of a work-term report for evaluation by a faculty member. In addition, both the employer and the coordinator for the program will evaluate the student’s performance on work terms. The work-term report must be submitted no later than the end of the second week of the employment term immediately following the completion of the work term. Failure to meet this deadline will result in a grade of CR (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.

Work terms normally begin in September, January, or May, and students are normally eligible for a work placement after three or four academic terms of full-time study, as specified for individual programs. To be eligible for the first work term, students must be in good standing in the program (see above, under Program Requirements) and have completed any other requirements specified by the particular program. 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).

Course Requirements

For the courses required, see the Calendar entry for each specific program.

Joint Programs with Centennial College

The University of Toronto Scarborough and Centennial College have established joint programs. The 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. Students also have the opportunity to qualify for a diploma or certificate from Centennial College, which in some cases may require one additional academic session. All Joint Programs may be taken only as part of an honours degree. For specific program details, please see the detailed program entry in the appropriate discipline and visit the Joint Programs website: www.mtic.utoronto.ca/jprogs.
University of Toronto Scarborough 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 do not necessarily wish to complete a Specialist, Major or Minor Program 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 if they return to the University of Toronto Scarborough for further language study that contributes to the assessment of the Citation.

Requirements for the Language Citation

The Citation may be earned in any language, modern or ancient, in which there is sufficient advanced training at the University of Toronto Scarborough.

1. Students must complete two full 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 two full credits may be language instruction or may be other courses (e.g. literature courses) where instruction is in the language to be assessed.

Students normally take one full 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 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 Department of Humanities in advance of graduation, presenting the Department with a copy of their academic record (produced from ROSI through the Student Web Service) and indicating the courses they would like considered in the assessment. (For more information, contact language.citation@utsc.utoronto.ca or french-program-supervisor@utsc.utoronto.ca.)

The Language Citation will consist of a notation in the U of T Scarborough section of the university transcript that reads: “Completed the requirements of the Language Citation in [Name of Language].”
## Guide to Programs and Courses Offered

Programs

Some programs have strict enrolment limits. In the event that the number of qualified applicants exceeds the teaching or other resources available, enrolment in other programs may have to be limited at a future date.

### Notes:
- Application procedures for current students are available at: www.utsa.utoronto.ca/subjectpost
- Tuition amounts vary with different University programs. Please consult the Student Accounts website at www.utsa.utoronto.ca for further information.

The following is a list of programs currently offered by U of T Scarborough. Co-op ✓ = Co-operative option available CTEP ✓ = Eligible anchor subject in the Concurrent Teacher Education Program.

<table>
<thead>
<tr>
<th>Area</th>
<th>Department</th>
<th>Program</th>
<th>Type</th>
<th>Degree</th>
<th>Co-op</th>
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<tr>
<td>African Studies</td>
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<tr>
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<td></td>
<td>Anthropology</td>
<td>Major</td>
<td>BA/BSc</td>
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<td>Applied Microbiology</td>
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<td>BA</td>
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</tbody>
</table>
| Astronomy              | See Physics & Astrophysics
<p>| Biology                | Biological Sciences      | Biodiversity, Ecology &amp; Evolution | Specialist | BSc    | ✓    |
|                        |                          | Biodiversity, Ecology &amp; Evolution | Major       | BSc    | ✓    |
|                        |                          | Biology                  | Major       | BSc    | ✓    |
|                        |                          | Biology                  | Minor       | BSc    | ✓    |
|                        |                          | Cell &amp; Molecular Biology | Specialist   | BSc    | ✓    |
|                        |                          | Human Biology            | Specialist   | BSc    | ✓    |
| Chemistry              | Physical &amp; Environmental Sciences | Integrative Biology | Specialist | BSc    | ✓    |
|                        |                          | Biological Chemistry     | Specialist   | BSc    | ✓    |
|                        |                          | Chemistry                | Specialist   | BSc    | ✓    |
|                        |                          | Chemistry                | Major        | BSc    | ✓    |
| City Studies           | Social Sciences          | City Studies             | Major       | BA     | ✓    |
| Classical Studies      | Humanities               | Classical Studies        | Minor       | BA     | ✓    |
| Computer Science       | Computer &amp; Mathematical Sciences | Computer Science | Specialist | BSc    | ✓    |
|                        |                          | • Comprehensive stream   |              |        |       |
|                        |                          | • Information Systems stream |         |        |       |
|                        |                          | • Software Engineering stream |        |        |       |
|                        |                          | Computer Science         | Major       | BSc    | ✓    |
|                        |                          | Computer Science         | Minor       | BSc    | ✓    |
| Diaspora &amp; Transnational Studies | Social Sciences | Diaspora &amp; Transnational Studies | Major       | BA     | ✓    |
|                        |                          | Diaspora &amp; Transnational Studies | Minor       | BA     | ✓    |
| Economics              | Management               | Economics for Management Studies | Specialist | BBA    | ✓    |
|                        |                          | Economics for Management Studies | Major       | BA     | ✓    |
|                        |                          | Economics for Management Studies | Minor       | BA     | ✓    |
| English                | English                  | English                  | Specialist   | BA     | ✓    |
|                        |                          | English                  | Major        | BA     | ✓    |
|                        |                          | English Literature       | Minor       | BA     | ✓    |
|                        |                          | Literature &amp; Film Studies | Minor       | BA     | ✓    |
| Environmental Science  | Physical &amp; Environmental Sciences | Environmental Biology | Specialist | BSc    | ✓    |
|                        |                          | Environmental Chemistry  | Specialist   | BSc    | ✓    |
|                        |                          | Environmental Geoscience  | Specialist   | BSc    | ✓    |
|                        |                          | Environmental Physics    | Specialist   | BSc    | ✓    |</p>
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Suspension of enrolment
Enrolment in the following programs has been suspended indefinitely while reviews are conducted. Students who first enrolled at UTSC as a degree student prior to the 2010 Summer Session should refer to the 2009/2010 UTSC Calendar for program requirements.
• The science versions of the Major Programs in International Development Studies.
• The Interdisciplinary Combination Program in International Development & Environmental Studies.
• The Major Program in International Studies.
• The Major Program in Media Studies.
• The Major Program in Religion.
2011 Summer Session should refer to 2010/2011 UTSC Calendar for program requirements.
• The Specialist Program in Arts & Culture all streams except Studio.

Courses
See also the "Course Selection" section of this Calendar and "How to Read a Course Description" below.

Exclusions, Prerequisites and Corequisites

1. Exclusions
Students may not register for credit in a 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.) Courses are not always mutually exclusive, so it is important to check the entries for both courses when one lists the other as an exclusion. Where students enroll in an excluded
2. Prerequisites

Students must have passed the prerequisite course before enrolling in the course being described. Instructors are permitted to waive prerequisites if they feel that there are adequate grounds for so doing. The Registrar’s Office does NOT require notification of a prerequisite waiver. However, when the course being waived is listed as a program requirement, students should discuss the matter in advance with their program supervisor. A program exception form may be necessary. 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 who are not withdrawn from the course remain in it at their own risk for lack of the prerequisite is not grounds for special consideration. Students who complete courses for which they have obtained a waiver of specific prerequisites may not subsequently obtain credit for the less-advanced prerequisite courses. Students may not register for credit in a course that is a specific prerequisite for a course they have already passed. In these instances, the course will be counted as “extra” (see the section of this Calendar on extra courses).

3. Corequisites

Students must already have passed the corequisite course, or must enroll 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 co-required course without obtaining a specific waiver of the corequisite, they may be withdrawn from the course at any time. Students who are not withdrawn from the course remain in it at their own risk for lack of the corequisite is not grounds for special consideration.

4. Prerequisites in Square Brackets

Square Brackets are used in prerequisites to indicate aggregate or alternate choices example: [ECMB01H3 or ECMB02H3] & [ECMB0513 or ECMB0613]

5. Recommended

In addition to prerequisites and corequisites, other background material or courses that enhance a student’s understanding of a course may be listed in the course description as “Recommended”.

6. Exclusions, Prerequisites and Corequisites in Parentheses

Some exclusions and some prerequisite and corequisite courses are enclosed in parentheses, for example (MGT031H3). This indicates that the course is no longer in the curriculum. Students who have already passed an excluded course contained in parentheses may not take the course being described. Students who have completed, in a previous session, a prerequisite or corequisite course contained in parentheses may use the course to meet the requirements of the course being described.

Supervised Reading, Supervised Research and Independent Study Courses

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 before enrolling in them. Forms are available from the Registrar’s Office. Please note that some disciplines require submission of their own special application forms for courses of this type in addition to the Supervised Study Form.

WebOption Courses

Some U of T Scarborough courses have WebOption sections intended to provide enhanced flexibility with respect to how and when students attend lectures. These sections are normally created by tapping instructors as they give their traditional lectures, then posting these taped 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.

Credit/No Credit

Effective with the 2010 Summer Session, UTSC degree students may select up to 1.0 full credit of their degree credits to be assessed on a Credit/No Credit basis. Students must choose this mode of assessment no later than the last day to enroll in the relevant course.

Requests for this type of assessment are submitted to the Registrar’s Office via elservice. Once the deadline has passed, students may not, under any circumstances, reverse this decision.
To achieve a status of CR (Credit), a student must achieve a final mark of at least 60%. Marks below that will be assessed as NCR (No Credit). Courses with a final status of CR will count as degree credits but will have no effect on 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.

Students may exercise this option to a total of 1.0 full credit within the total number of credits required for a degree. Note: This option is available only for UTSC courses. The choice is not restricted as to year or level of course. This option is not available to UTSC non-degree students or to students from other faculties/divisions of the University of Toronto.

**Pass/Fail**

Certain courses, including some visual and performing arts courses, are graded on a Pass/Fail (P/F) basis. In those courses to achieve a status of P (Pass), a student must achieve a final mark of at least 50%. Where students earn a grade of “Pass” in a P/F course, the course is not included in the grade point average; where students earn a grade of “Fail”, the course is included as an “F” (value zero) in the grade point average.

In courses graded on a Pass/Fail basis (P/F), 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 enter 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.
How to Read a Course Description

MGTD75H3 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 constructions, security analysis, investments in stocks, bonds and derivative securities, and portfolio performance measurements.

Prerequisite: A course you need to take before you are qualified to take this one. To take MGTD75H3 you must first pass MGTD69H3 or MGTD69H3. See detailed description of prerequisites in “Course” section of this Calendar.

Corequisite: A course you must take at the same time as this course (unless you have passed it previously). To enroll in MGTD75H3 you must also enroll in MGTD69H3. See detailed description of corequisites in “Course” section of this Calendar.

Exclusion: A course with content too similar to another for credit to be given to both. In this case, you may not take MGTD75H3 for credit. If you are taking or have already passed MGTD69H3, MGTD30H1, or MGTD30H1. See detailed description of exclusions in “Course” section of this Calendar.

Breadth Requirement: Category to which the course belongs. See “Degree Requirements” section of this Calendar.

Brackets: [] groups courses
() indicates a course that is no longer offered.

Section Code: Section code indicates the duration of the course. This information is not contained in the course code, but is provided in the course timetable. Note: Not all courses listed in this Calendar are offered each session (see the course timetable at www.mcc.anu.edu.au/timetables).
African Studies

Faculty List
N. Kortenaa, M.A., Ph.D. (Toronto), Associate Professor
J. Nabiringiee, M.A. (McGill-U), Ph.D. (Montreal-UQAM), Associate Professor
S.J. Rockee, M.A., Ph.D. (Toronto), Associate Professor
M. Assaf, B.A. (Hassan II), M.A., Ph.D. (Csee Western Reserve), Lecturer

Program Director: S. Rockee (416-287-7143) Email: rockee@utsc.utoronto.ca

African Studies is in the strong and evolving tradition of innovative interdisciplinary programs based in Humanities at UTSC. The foundation of the program lies in its unique structure and particular strengths of Humanities yet it reaches out to the Social Sciences and beyond. African Studies aims to widen students' knowledge and experience from different perspectives in relation to the second largest and, in some respects, most complex continent, its peoples and their diaspora. It encourages students to engage with and explore ideas and material concerning African histories, cultures, economies, political systems, artistic expression and systems of belief. In many program courses Africa, its peoples and their cultures are situated in relation to the wider world. The study of interconnections over long periods of time with Europe, Asia, and the Americas highlights Africa's central role in world history. Several courses concentrating on recent periods and the current era challenge students to think beyond the stereotypes of Africa as marginal to the processes of globalization. Throughout the program students explore the exciting recent developments in our understanding of African civilizations, thought, political and religious systems, and histories of slavery, colonialism, racism, and nationalism. A number of courses emphasize modern 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 in all of the disciplines and to reject preconceived myths and stereotypes that permeate mainstream and popular cultures in the West. As in other Humanities based programs at UTSC, students with an African Studies minor 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.

Students who intend to complete the African Studies program should include AFSA401H3 in their first year course selection. Certain elective courses (e.g. ENGD48H3, ENGC79H3, ENGD63H3) have non-African Studies prerequisites. This may require that you take more than 4.0 credits to complete the program. If you are interested in taking one of them, check the prerequisites carefully before deciding what courses to select.

The African Studies Study Guide is available at: www.utsc.utoronto.ca/~humdiv/afgh.html

MINOR PROGRAM IN AFRICAN STUDIES (ARTS)
Undergraduate Advisor: 416-287-7184 Email: afs-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete four full credits, as follows:

1. AFSA401H3 Africa in the World: An Introduction
2. 1.0 credit from the following (students should check course descriptions for prerequisites):
   ANTH55H3 Culture and Society in Africa
   HIS250H3 Africa in the Nineteenth Century
   HIS251H3 Twentieth Century Africa
3. 2.0 credits from the list below; at least 1.0 credit must be at the C- or D-level (students should check course descriptions for prerequisites):
   ANTH55H3 Culture and Society in Africa (if not used in Requirement 2)
   (ANTH60H3) African Cultures and Societies II: Case Studies
   (CLAO45H3) Environment, Society, and Economy in Paleolithic and Roman Egypt
   ENGL37H3 Contemporary Literature from the Caribbean
   ENGL72H3 Contemporary Literature from Africa
   ENGL73H3 Rap Poetics (formerly ENGD63H3)
   ENGD63H3 Topics in African Literature
   (ENGD61H3) James Baldwin, the African American Experience, and the Liberal Imagination
   FREA20H3 Language Practice I
   FREA25H3 Language Practice II
   FREB15H1 Language Practice III
   FREB20H3 Language Practice IV
   FREB50H3 Francophone Literature
   FREC47H3 Special Topics in Linguistics: Pidgin and Creole Languages
   FREL21H3 Advanced Topics in Literature: Haitian Migrant Literature in Quebec
   HIS251H3 Africa in the Nineteenth Century (if not used in Requirement 2)
   HIS252H3 Twentieth Century Africa (if not used in Requirement 2)
AFSA01H3 Africa in the World: An Introduction
An interdisciplinary introduction to the history and development of African Studies 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 Anthropology, History, Anthropology, Geography, Literature, the Arts and Women's Studies. Exclusion: NEW150Y
Breadth Requirement: History, Philosophy & Cultural Studies

AFSA02H3 African Worldviews
An interdisciplinary introduction to African and African diasporic religions, philosophies, and oral and written cultures. Recommended preparation: AFSA01H3
Breadth Requirement: History, Philosophy & Cultural Studies
degree) or the Biological Anthropology stream (which leads to a B.Sc. degree) during their second year of study. All courses in Biological Anthropology carry a science credit.

**SPECIALIST (COOPERATIVE) PROGRAM IN ANTHROPOLOGY (ARTS/SCIENCE)**

The Specialist (Cooperative) Program in Anthropology has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in the program are able to complete it. Degree students who first enrolled at UTSC prior to the 2011 Summer Session should refer to the 2010/2011 UTSC Calendar.

**SPECIALIST PROGRAM IN ANTHROPOLOGY (ARTS/SCIENCE)**

The Specialist Program in 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 Supervisor of Studies 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 (ANTC30H3, ANTC40H3, ANTD33H3, 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 full credits, as indicated below.

1. **ANTAO03H3** Introduction to Anthropology: Becoming Human
2. At least 1.5 credits from among the following:
   - ANTB14H3 Biological Anthropology: Beginnings
   - ANTB15H3 Contemporary Human Evolution and Variation
   - ANTB16H3 Ethnography and the Comparative Study of Human Societies
3. **ANTR20H3** Culture, Politics and Globalization
4. **ANTR25H3** Culture, Politics and Globalization
5. 9.5 credits at the B-level or above, of which 4.0 credits should be at the C- or D-level, including at least 1.0 credit at the D-level.
   - **Note:** Students pursuing the Socio-Cultural stream must ensure that as part of Requirement 3, they complete:
     a. At least 1.0 credit in area studies courses (ANTEB05H3, ANTEB16H3, ANTEB18H3, ANTEB65H3, ANTEB07H3)
     b. 1.0 credit in Ethnographic methods: ANTC30H3 & ANTD33H3
c. Courses in Anthropological Linguistics (i.e. LINC27H3 & IEEC11H3) may be counted towards fulfilling Requirement 3.
   - **Note:** For a B.A. at least 7.5 of the credits required for the program must be science credits.

**MAJOR PROGRAM IN ANTHROPOLOGY (ARTS/SCIENCE)**
The major program in 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 full credits in Anthropology including:

1. **ANTAO03H3** Introduction to Anthropology: Becoming Human
2. **ANTAO03H3** Introduction to Anthropology: Society, Culture and Language
3. At least 1.5 credits from among the following:
   - ANTB14H3 Biological Anthropology: Beginnings
   - ANTB15H3 Contemporary Human Evolution and Variation
   - ANTB16H3 Ethnography and the Comparative Study of Human Societies
4. **ANTR20H3** Culture, Politics and Globalization
5. 5.5 credits at the B-level or above, of which at least 3.0 credits must be at the C- or D-level.
   - **Note:** Students pursuing the Socio-Cultural stream must ensure that as part of Requirement 3, they complete:
     a. At least 1.0 credit in area studies courses (ANTEB05H3, ANTEB16H3, ANTEB18H3, ANTEB65H3, ANTEB07H3)
     b. ANTC30H3
     c. Courses in Anthropological Linguistics (i.e. LINC27H3 & IEEC11H3) may be counted towards fulfilling Requirement 3.
   - **Note:** For a B.A., at least 5.5 of the credits required for the program must be science credits.

**MINOR PROGRAM IN ANTHROPOLOGY (ARTS)**
The Minor Program in Anthropology provides a course structure for students majoring in or specializing in other disciplines who want some directed exposure to anthropological thought.

**Program Requirements**
The Program requires completion of 4.0 full credits as follows:
1. ANTA01H3 Introduction to Anthropology: Becoming Human
   ANTA02H3 Introduction to Anthropology: Society, Culture and Language
2. At least 1.5 credits from among the following:
   ANTB14H3 Biological Anthropology: Beginnings
   ANTB15H3 Contemporary Human Evolution and Variation
   ANTB19H3 Ethnography and the Comparative Study of Human Societies
   ANTB20H3 Culture, Politics and Globalization
3. 1.5 additional credits in Anthropology, of which 1.0 credit must be at the C- or D-level.

SPECIALIST PROGRAM IN MEDICAL ANTHROPOLOGY (ARTS/SCIENCE)

The Specialist Program in Medical Anthropology has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in the program are able to complete it.

ANTA01H3 Introduction to Anthropology: Becoming Human
   An introduction to Biological/Physical Anthropology and Archaeology. Concentrates on the origins and evolution of human life, including both biological and cultural aspects, from the ancient past to the present. Science credit Exclusion: ANTI00Y, ANTI01H
   Breadth requirement: Natural Sciences

ANTA02H3 Introduction to Anthropology: Society, Culture and Language
   An introduction to socio-cultural anthropology. Addresses the concepts of culture, society, and language and the anthropological perspective on cultural differences and societies of varying scale. Family, economic, political, and religious systems are illustrated from a variety of the world’s cultures. Exclusion: ANTI00Y, ANTI02H
   Breadth requirement: Social & Behavioural Sciences

ANTB14H3 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 ethnography, conservation, resource management, the concept of 'wilderness', and what happens when competing and differentially empowered views of the non-human world collide. Prerequisite: [ANTA01H3 & ANTA02H3] or permission of the instructor
   Breadth requirement: Social & Behavioural Sciences

ANTB00H3 Culture and Society in Africa
   An overview of the range and diversity of African social institutions, religious beliefs and rituals, kinship, political and economic organization, pre-colonial, colonial and post-colonial experience. Area course
   Prerequisite: [ANTA01H3 & ANTA02H3] or permission of the instructor
   Breadth requirement: Social & Behavioural Sciences

ANTB00H3 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-construct 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: ANTA01H3 & ANTA02H3
   Enrolment Limit: 120
   Breadth requirement: Social & Behavioural Sciences

ANTB15H3 Biological Anthropology:Beginnings
   This course surveys humanity's origins. 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 behavioural, taphonomy and classification, paleoanthropological principles and human origins.
   Science credit
   Prerequisite: ANTA01H3
   Exclusion: ANTB20Y
   Breadth requirement: Natural Sciences

ANTB19H3 Contemporary Human Evolution and Variation
   This course explores the diversity and cultural complexity of the human species in the context of evolutionary theory and the biological basis for human variation. The evolutionary forces, human adaptability and health and disease. Science credit
   Prerequisite: [ANTA01H3 & ANTA02H3] or permission of the instructor
   Exclusion: ANTB20Y
   Breadth requirement: 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: [ANTA01H3 & ANTA02H3] or permission of the instructor
   Breadth requirement: 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 interact with development thinking and modernization agendas; and how the poor and marginalized have accommodated, resisted, and transformed cultural and political domination.
   Area course
Prerequisite: ANT0101H3 & ANT0201H3
Exclusion: (ANTC306H3)
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

**ANTB1903 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: ANT1010H3 Exclusion: ANT200YY
Breadth Requirement: Social & Behavioural Sciences

**ANTB201H3 Culture, Politics and Globalization**

This course is a further examination of approaches to the study of human cultural diversity in an interconnected world. Through ethnographic accounts and documentary films, students examine the affects of globalization through the political dimensions of culture and the global flows of technology, religion, kinship networks, migration, capital and crime. Prerequisite: ANT0101H3 & ANT0201H3
Exclusion: ANT200Y
Breadth Requirement: Social & Behavioural Sciences

**ANTB210H3 Introduction to Linguistics Anthropology**

How are language and culture connected? How does language work? Do signs, in ritual, kinship, religion and myth, how is it represented in media, and how does language affect thought? These questions are introduced with a variety of ethnographic examples. Prerequisite: ANT0101H3 & ANT0201H3
Breadth Requirement: Arts, Literature & Language

**ANTB220H3 Primate Behaviour**

A general introduction to the study of the life ways of non-human primates with particular emphasis on observing and recording primate behavior. Readings and lectures develop the context in which observations are analyzed. Tools of recording and analysis are practiced and presented in seminars. Science credit
Prerequisite: ANTB100H3 Exclusion: (ANTB220Y3)
Breadth Requirement: Social & Behavioural Sciences

**ANTB340H3 The Anthropology of Food: Consuming Passions**

This course examines the social significance of food and foodways from the perspective of cultural anthropology. We explore the beliefs and behaviors surrounding the production, distribution and consumption of food, and the role of food in shaping or revealing cultural relations, identities, political processes, and forms of globalization. Prerequisite: ANT0101H3 & ANT0201H3
Exclusion: (ANTC040H3) Enrolment Limit: 150
Breadth Requirement: Social & Behavioural Sciences

**ANTB501H3 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. Arts course
Prerequisite: ANT0101H3 & ANT0201H3
Exclusion: (ANTC651H3) Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

**ANTC003H3 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 average is normally required to be considered for these courses. May be science credit or arts course depending on topic
Prerequisite: Permission of the instructor & ANT0101H3 & ANT0201H3 & one II-level full credit in Anthropology.

**ANTC008H3 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: ANTB100H3 & ANTB201H3
Breadth Requirement: Social & Behavioural Sciences

**ANTC050H3 Families: Kinship and Marriage from a Cross-Cultural Perspective**

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: ANT0101H3, ANT0201H3, ANTB100H3 & ANTB201H3 Enrolment Limit: 50
Breadth Requirement: Social & Behavioural Sciences

**ANTC060H3 Anthropological Perspectives on Development**

A critical probe of the origins, concepts, and practices of development in cultural perspective. Attention is paid to how forces of global capitalism intersect with local systems of knowledge and practice. Prerequisite: [ANTB100H3 & ANTB201H3] or permission of the instructor Enrolment Limit: 25
Breadth Requirement: Social & Behavioural Sciences

**ANTC110H3 Culture, Science and Biotechnology: Redefining the ‘Natural’ Order of Things**

This course examines how recent developments in biotechnology e.g., the manipulation of genetically modified organisms, assisted reproduction technologies, and the mapping of the human genome, to name a few — are transforming our understanding of what it means to be human, including the relationship between human beings and other species. Prerequisite: ANT090H3
Exclusion: (ANTC050H3) Enrolment Limit: 70
Breadth Requirement: Social & Behavioural Sciences
ANTC12H3 Research on the Social Behaviour of Non-Human Primates
This course concentrates on field techniques in the study of non-human primates. Field work is two weeks within the semester: Daily routine: dawn to dusk, evening analyses: some free time. Evaluation: participation, preliminary research, field notes, log book and seminar or paper. Science credit.
Prerequisite: ANTB22H3 or (ANTB22Y3) & permission of the instructor
Enrolment Limit: 10
Breadth Requirement: Natural 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 & ANTB20H3] or permission of the instructor
Breadth Requirement: Social & Behavioural Sciences

ANTC15H3 Gender and Sexuality
Complements and extends ANTC14H3 by exploring cultural constructions of male and female in a range of societies and institutions.
Prerequisite: [ANTB19H3 & ANTB20H3] or permission of the instructor.
Recommended Preparation: ANTC14H3
Breadth Requirement: 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 Requirement: 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 & ANTA02H3] or permission of the instructor
Exclusion: (ANT332Y)
Breadth Requirement: Natural Sciences

ANTC18H3 Urban Anthropology
Urban space, the city, and as institutions at different times been the focus of ethnographic studies of cities. In this course we will examine the role of culture, cultural diversity, and institutions in urban settings.
Prerequisite: ANTB19H3 & ANTB20H3
Enrolment Limit: 60
Breadth Requirement: 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 & ANTB20H3
Breadth Requirement: Social & Behavioural Sciences

ANTC20H3 Gifts, Money and Morality
What limits exist or can be set to commoditization 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, a subject at once obvious and mysterious.
Prerequisite: ANTB19H3 & ANTB20H3
Breadth Requirement: Social & Behavioural Sciences

ANTC21H3 Primate Sexuality
This course will review primate socio-sexual behaviour from an evolutionary perspective. Following a broad survey of mating patterns in the primate order, specific topics will be discussed, including male and female mating strategies, mate choice and sperm competition. Taxonomic groups of focus will include primates, monkeys, apes and humans. Science credit.
Prerequisite: ANTB22H3
Breadth Requirement: Natural Sciences

ANTC22H3 Anthropology and Psychology
How are we to understand the relationship between psychic universals and diverse cultural and social forms in the construction of human experience? Anthropology's dialogue with Freud, cultural construction and expression of emotions, personhood, and self.
Prerequisite: ANTAG1H3 & ANTA02H3
Recommended Preparation: ANTB19H3 & ANTB20H3
Breadth Requirement: Social & Behavioural 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 & ANTB20H3]
Breadth Requirement: 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 & ANTB20H3
Breadth Requirement: Social & Behavioural Sciences
ANTC33H3 Conceptualizing Religion
Anthropological approaches to the origin and function of religion, and the nature of symbols, myth, ritual, sorcery, spirit possession, and cosmology, with primary reference to the religious worlds of small-scale societies. Prerequisite: ANT19H3 & ANT20H3
Exclusion: ANT30H3
Breadth Requirement: Social & Behavioural 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: ANT34H3 or permission of instructor
Breadth Requirement: Natural Sciences

ANTC44H3 Human and Primate Comparative Osteology
A "hands-on" laboratory course which introduces students to analyzing human and non-human 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: ANT14H3
Exclusion: ANT34H3, ANT33Y
Enrollment Limit: 40
Breadth Requirement: 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) osteological description, including dental pathology; (3) somatic description; (4) nutritional 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: ANT42H3 or permission of instructor
Exclusion: ANT34H3, ANT33Y
Enrollment Limit: 40
Breadth Requirement: Natural Sciences

ANTC59H3 Fieldwork in Social and Cultural Anthropology
A fieldwork course that introduces students to the methods of conducting fieldwork. Students complete reading and lecture on method with gaining first-hand experience in carrying out various techniques of anthropological research including interviewing, collecting fieldnotes, participant observation, and project design. We also consider what it means to carry out ethnographically responsible research. Prerequisite: ANT19H3 & ANT20H3 & at least 0.5 credit at the C-level in social-cultural anthropology. Enrollment Limit: 40 with preference given to students in specializations in anthropological and international development studies. Breadth Requirement: Social & Behavioural Sciences

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: ANT19H3 & ANT20H3 or permission of the instructor
Breadth Requirement: Social & Behavioural Sciences
ANTC6H3 Medical Anthropology: Biological and Demographic Perspectives

The examination of health and disease in ecological and socio-cultural perspective. Emphasis is placed on the variability of populations in disease susceptibility and resistance in an evolutionary context. With its sister course, ANTC4H3, 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
Prequisite: [ANTB14H3 & ANTB15H3] or permission of the instructor
Breadth Requirement: Natural Sciences

ANTC6H3 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.

Prequisite: ANTB19H3 & ANTB20H3
Enrolment Limit: 80
Breadth Requirement: Social & Behavioural Sciences

ANTC6H3 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
Prequisite: [Any B-level course in Anthropology or Biology] & any statistics course.
Breadth Requirement: Quantitative Reasoning

ANTC6H3 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, illnesses of co-morbidity, the epidemiological transition, syndemics and the impact of global warming on the emergence of new diseases are discussed.

Science credit
Prequisite: [Any B-level course in Anthropology or Biology] & any statistics course.
Breadth Requirement: Natural Sciences

ANTC6H3 The Anthropology of the Middle East

What makes the Middle East unique as a world region? This course considers topics like transnational religious movements, imperial and nationalist histories, issues of language diversity, the impact of new communication technologies, and regional conflicts. Ethnographic examples are drawn from different contexts.

Prequisite: ANTB19H3 & ANTB20H3
Recommended Prequisite: ANTB21H3
Breadth Requirement: Social & Behavioural Sciences

ANTC6H3 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.

Prequisite: ANTG1H3 or ANTG14H3 or permission of instructor
Enrolment Limit: 60
Breadth Requirement: Natural Sciences

ANTD6H3 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.

Prequisite: ANTB49H3 & ANTB50H3 & at least 1.0 credit at the C-level in socio-cultural anthropology.
Enrolment Limit: 25
Breadth Requirement: Social & Behavioural Sciences

ANTD6H3 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.

Prequisite: ANTB19H3 & ANTB20H3 & at least one additional C-level course in socio-cultural anthropology.
Enrolment Limit: 25
Breadth Requirement: Social & Behavioural Sciences

ANTD6H3 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 a research project of their own design. This course culminates in an original research paper which will be read by at least two faculty members.

Prequisite: ANTB19H3 & ANTB20H3 & ANTB60H3 & at least two additional C-level courses in socio-cultural anthropology.
Enrolment Limit: 15
Breadth Requirement: Social & Behavioural Sciences

ANTD6H3 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.

Prequisite: ANTB 91H3 & ANTB20H3 & at least two additional C-level courses in socio-cultural anthropology.
Enrolment Limit: 25
Breadth Requirement: Social & Behavioural Sciences

ANTD6H3 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, and North America. Specific case studies from
the region will be used to highlight theoretical and ethnographic issues.  
Prerequisite: ANT191H3 & ANT201H3 & at least one previous area course & at least one additional C-level course in socio-cultural anthropology.  
Enrolment Limit: 25

**ANTD13H3 Frontiers of Anthropology: A Biological Perspective**  
An advanced seminar course primarily for majors and specialists in biological anthropology. Topic to be annotated.  
Prerequisite: ANTBI4H3 & ANT B15H3 & at least one C-level course in biological anthropology.  
Enrolment Limit: 25

**ANTD15H3 Frontiers of Socio-Cultural Anthropology**  
An advanced seminar course primarily for majors and specialists in anthropology. Topic to be annotated.  
Prerequisite: ANTBI9H3 & ANT202H3 & [ANTC31H3 & ANTC33H3 or two other comparable C-level courses]

**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: ANTCK2H3 and one C-level full credit in Physical Anthropology  
Breadth Requirement: 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: ANT407H3 & ANT408H3  
Breadth Requirement: Natural Sciences

**ANTD20H3 Theory and Methodology in Primatology**  
This seminar course will examine current socio-ecological theory in primatology and explore different methods for studying and sampling primates behaviour.  
Science credit  
Prerequisite: ANT222H3 & ANT233H3  
Enrolment Limit: 25

**ANTD24H3 Theory and Methodology in Social/Cultural Anthropology**  
An overview of the history of ethnological thought. This course focuses on certain key theoretical debates which run through it and largely determine the "state of the art" today. Evolutionary, diffusionist, psychological, cross-cultural, functionalist, structuralist, and historical-geographical approaches will be considered through selected readings from such major figures as Tylor, Durkheim, Boss, Kroeber, Malinowski, Radcliffe-Brown, and Levi-Strauss. An attempt will be made to understand these individuals in terms of the social and intellectual climates in which they wrote.  
Prerequisite: ANTBI9H3 & ANT202H3 & at least 1.0 credit at the C-level in socio-cultural anthropology  
Breadth Requirement: Social & Behavioural Sciences

**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 health risks associated with these diseases present in Canada. The course will incorporate both anthropological and epidemiological perspectives.  
Science credit  
Prerequisite: ANTBI4H3 & ANTBI5H3 & EILTA01H3 & [ANTC35H3 or SOC306H3 or STAT223H3]  
Breadth Requirement: Natural Sciences

**ANTD31H3**

**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 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 & ANTAD1H3 & ANTAD2H3 & two full credits in Anthropology, one of which must be at the C-level

**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.  
Prerequisite: ANTBI1H5 & at least one C-level course in biological anthropology.  
Exclusion: ANT D13H3 if completed in the 2010/2011 academic year  
Recommended Preparation: ANT C98H3  
Enrolment Limit: 25  
Breadth Requirement: Natural Sciences
Art History
See the Visual and Performing Arts section of this Calendar

Arts Management
See the Visual and Performing Arts section of this Calendar

Applied Microbiology (formerly Industrial Microbiology)

Faculty List
S.A. Brunt, B.Sc., M.Sc., Ph.D. (Toronto), Lecturer

SPECIALIST (JONT) PROGRAM IN APPLIED MICROBIOLOGY (SCIENCE)

This UTSC-Centennial College joint specialist program combines theory and technical experience in areas related to applied and industrial microbiology. The UTSC courses provide students theoretical and academic depth in cell and molecular biology, biochemistry, and microbiology, while Centennial's courses provide invaluable applied and practical experience. Project work, in consultation with faculty, allows students to develop skills in laboratory research and techniques, report writing and presentation. By taking courses at both UTSC and Centennial, students are able to earn a UTSC Honours B.Sc. degree and quality for a Biotechnology Technician-Industrial Microbiology Diploma from Centennial College. Graduates from this program are well trained to take positions in the food, chemical, pharmaceutical, cosmetic and other related industries. This includes positions in product development, product production and sales management. Opportunities also exist in government and environmental agencies, as well as the option to pursue graduate work.

Program Admission
Students should register for Centennial courses using ROSI. However, to complete the registration process, you must follow up the ROSI registration process by contacting (via email) the Centennial College Biotechnology Coordinator, Alan Richardson (richardson@centennialcollege.ca). Once you have provided him with your course selections, you are then formally registered at Centennial. Registration in Centennial courses does not begin until the second year of the program. For additional information about admission to this program, see the "Joint Programs with Centennial College" section of this Calendar.

Program Requirements
This program consists of 16.0 required credits (9.5 at UTSC and 6.5 at Centennial). Since a total of 20.0 credits are required to complete a UTSC degree, students taking this program should additionally take 4.0 credits of UTSC elective courses. When choosing electives, keep in mind the minimum breadth requirements that must be met to complete a degree. It is advised that, including electives, students should plan to take 5.0 credits in each year of their four-year degree. Students should note that they may also be able to accelerate completion of their program and degree by taking advantage of summer course offerings at UTSC and Centennial. Note that courses with the designators IMC and STE are taught at Centennial College's HP Science and Technology Centre campus, located within 5 minutes walking distance of the UTSC campus.

Required Courses and Suggested Course Sequence

First Year
1.0 Credit of Introductory Biology Courses:
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

1.0 Credit in Chemistry
CHMA1H3 Introductory Chemistry I: Structure and Bonding
CHMA1H3 Introductory Chemistry II: Reactions and Mechanisms

1.0 Credit in Mathematics
MATA30H3 & MATA35H3 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences

0.5 Credit in Statistics or Computer Science
Choose from:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology
CSCA66H3 Introduction to Computer Programming
CSCA25H3 Computer Science for the Sciences
PSBB97H3 Introduction to Scientific Computing

Second Year
2.0 Credits of Biology Core Courses and Lab
BIOC11H3 Cell Biology
1.0 Credit of Organic Chemistry Courses
CMB41H3 Organic Chemistry I
CMB62H3 Organic Chemistry II

1.5 Credits of Industrial Microbiology Courses at Centennial
*IMCB01H3 Microbiology Basics
*IMCB02H3 Microbial Techniques
*IMCB03H3 Lab Instrumentation

Third Year
2.0 Credits of core Biology/Microbiology Courses
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC15H3 Genetics
BIOC17H3 Microbiology: The Bacterial Cell
ESC30H3 Microbial Biochemistry

3.0 Credits of Industrial Microbiology Courses at Centennial
*IMCB04H3 Food Microbiology
*IMCB05H3 Microbiology Project
*IMCB07H3 Analytical Chemistry and Applications
*IMCB06H3 Pharmaceutical Microbiology
*IMCB07H3 Food Chemistry
*IMCB09H3 Biochemistry and Applications I

Fourth Year
1.0 Credit of Advanced D-level Biology courses
Choose from:
BIOC17H3 Seminars in Cellular Microbiology
BIOC22H3 Molecular Biology Laboratory I: Host, Vectors and Cloning
BIOC22H3 Molecular Biology Laboratory II: Nucleic Acids and Proteins
BIOC28H3 Genomics
BIOC28H3 Fungal Biology and Pathogenesis
BIOC29H3 Pathobiology of Human Disease
BIOC35H3 Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments

2.0 Credits of Industrial Microbiology Courses at Centennial
IMCC01H3 Advanced Microbiology Project
IMCC02H3 Microbial Genetics
IMCC03H3 Biochemistry and Applications II
IMCC04H3 Environmental Microbiology

B. Complementary Elective Courses (optional)
When selecting electives, students may wish to consider the following courses that may be complementary to their program:
HITA01H3 Health Studies
HITA02H3 Introduction to Research in Health Studies
HITA04H3 Health and the Urban Environment
HITA05H3 Politics of Canadian Health Studies
BIOB06H3 Mammalian Physiology I
BIOB11H3 Plant Physiology
BIOB15H3 Evolution
BIOC68H3 Environmental Toxicology

* A minimum of 60% is required in courses marked with an asterisk in order to maintain standing in the program.

IMCB01H3 Microbiology Basics
Basic principles of microbiology including study of microscopic organisms (bacteria, viruses, protozoans, algae, and fungi), the isolation, cultivation and identification of microorganisms, host-parasite relationships, and growth and control of microorganisms, and the human immune response to microbes. Limited to students in the Joint Program in Applied Microbiology or the Joint Program in Environmental Science and Technology.
Prerequisite: BIOA01H3 & BIOA02H3
Exclusion: IMCB01H3 may not be taken after or concurrently with BIOC17H3, (MBY377H) or MGY377H.
Breadth Requirement: Natural Sciences
IMCB02H3 Microbial Techniques  
Practical applications of the concepts covered in IMCB01H3. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: BIOA01H1 & BIOA02H3  
Corequisite: IMCB01H3  
Exclusion: IMCB02H3 may not be taken after or concurrently with BIOC173H1S, (MBGY376H1) or GGY376H1.  
Breadth Requirement: Natural Sciences

IMCB03H3 Lab Instrumentation  
The use and function of a variety of chemical instruments for the purpose of chemical analysis. Students learn to perform accurate measurements and/or analyses of experimental samples, and acquire proficiency in laboratory procedures of instrumental analysis as applied to QC, government, and industry standards. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: CHMA01H3 & CHMA11H3  
Breadth Requirement: Natural Sciences

IMCB04H3 Food Microbiology  
An introduction through theory and laboratory work to microorganisms of importance to the food and dairy industries. Quality control of raw materials and finished products; microbial metabolism, food and drug regulations and guidelines, theory of Good Manufacturing Practice for food manufacturers and Hazard Analysis and Critical Control Point Programs (HACCP). Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: IMCB01H3  
Breadth Requirement: Natural Sciences

IMCB05H3 Microbiology Project  
Practical experience in locating, collecting, and interpreting scientific information for the purpose of designing laboratory procedures. Students work individually under faculty supervision in a lab setting to perform the laboratory procedures and record the results and present a formal report. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: IMCB01H3 & IMCB02H3  
Breadth Requirement: Natural Sciences

IMCB06H3 Pharmaceutical Microbiology  
Quality control and quality assurance as they apply to the pharmaceutical industry, based on current government regulations. Students acquire knowledge of microbial production and assay methods, enumerate and identify microorganisms from commercial products, and evaluate the anti-microbial effectiveness of disinfectants, preservatives, and antibiotics. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: IMCB06H3  
Breadth Requirement: Natural Sciences

IMCB07H3 Food Chemistry  
The principles of food preparation science including: HACCP, organoleptic evaluation and survey techniques, tools for the measurement of food, and the physics of food preparation. Food components and their sources, and an introduction to food additives and contamination. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: CHMB42H3  
Breadth Requirement: Natural Sciences

IMCB08H3 Biochemistry and Applications I  
Theory and practical applications of Biochemistry. Theory focuses on the most important molecules found in living systems. Practical applications include the preparation of soap, testing of food oils, identification of sugars, paper chromatography of amino acid, titration of amino acids, and isolation of cases from milks. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: CHMB42H3  
Exclusion: IMCB08H3 may not be taken after or concurrently with BIOC12H3 or BCYS11H1.  
Breadth Requirement: Natural Sciences

IMCC01H3 Advanced Microbiology Project  
With individual consultation, guidance, and supervision, select and design a scientific protocol and perform a microbiology experiment, using researched information. A final thesis will be presented and defended orally. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: IMCB05H3 & IMCB06H3  
Breadth Requirement: Natural Sciences

IMCC02H3 Microbial Genetics  
Basic genetics using microorganisms, with concepts verified through lab experiments. Isolating and identifying nucleic acids, observing gene function, and effecting simple gene transfers. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: IMCB06H3  
Breadth Requirement: Natural Sciences

IMCC03H3 Biochemistry and Applications II  
Biochemistry and the theory of evolution; evidence for, and condition of, life during ancient times. Products, importance, function, classification, and control of enzymes. Energy balances of glycolysis and aerobic/anaerobic metabolism of carbohydrates and fats. Application of biochemistry to the growth and control of microorganisms and higher living forms. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: IMCB08H3  
Exclusion: IMCC03H3 may not be taken after or concurrently with BIOC13H3 or BCDD1H1.  
Breadth Requirement: Natural Sciences

IMCC04H3 Environmental Microbiology  
During this course, students will study the basic principles of environmental microbiology through lectures and laboratory experiments (including soil sampling and nutrient cycling). Students will also explore the application of biotechnology to environmental issues including bioremediation and the benefits and risks that genetically modified organisms pose to the environment. Limited to students in the Joint Program in Applied Microbiology.  
Prerequisite: IMCB06H3  
Breadth Requirement: Natural Sciences

STE80H3 Analytical Chemistry and Applications  
See the Environmental Science and Technology section of this calendar for a full course description.
Astronomy

Faculty List
P. Artymowicz, M.Sc. (Warsaw University), Ph.D. (N. Copernicus Astron. Center, Polish Academy of Sciences), Professor
C.C. Dyer, B.Sc. (Bishop's), M.Sc., Ph.D. (Toronto), Professor
J.P. Lowman, B.Sc. (Toronto), M.Sc., Ph.D. (York, Canada), Associate Professor
G. Lorinc, B.Sc., M.Sc. (Toronto), Senior Lecturer
T. Tsiok, B.Sc., M.Sc. (University of Toronto), Senior Lecturer
S. Tawfik, B.Sc., M.Sc. (University of Toronto), Senior Lecturer
J. Bayer Carpineto, B.Sc. (Los Andes, Bogota), M.Sc., Ph.D. (Toronto), Lecturer

Astronomy is at the same time one of the oldest and 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 AST1A01H3 and AST1A02H3 at a level suitable for students without mathematical background. In addition, the course AST2A03H3 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 this Calendar for details of these courses and these programs.

Science Engagement Course
For science experiential learning through community outreach, classroom in-reach and team research, please see the the Science Engagement section of this Calendar.

MAJOR PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE)
See the Physics and Astrophysics section of this Calendar for program requirements.

SPECIALIST PROGRAM IN NATURAL SCIENCES (SCIENCE)
See the Physical Sciences section of this Calendar for program requirements.

SPECIALIST PROGRAM IN PHYSICAL AND MATHEMATICAL SCIENCES (SCIENCE)
See the Physical Sciences section of this Calendar for program requirements.

SPECIALIST PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE)
See the Physics and Astrophysics section of this Calendar for program requirements.

MINOR PROGRAM IN ASTRONOMY AND ASTROPHYSICS (SCIENCE)
Supervisor: J. Bayer Carpineto (416-287-7327) Email: jbayer@utsc.utoronto.ca

Program Requirements:
Students must complete 5.0 full credits as follows:

AST2A03H3 Astrophysics of Stars, Galaxies and the Universe
PHYA1H3 Introduction to Physics IA
PHYA2H3 Introduction to Physics IB
MATA1H3 Calculus I for Biological and Physical Sciences
MATA2H3 Linear Algebra I
[MATA3H3 Calculus II for Physical Sciences or MATA3H3 Calculus II for Mathematical Sciences]
ASTC25H3 Astrophysics of Planetary Systems
MATH14H3 Techniques of the Calculus of Several Variables I
MATH24H3 Techniques of the Calculus of Several Variables II
[ASTD0H3 Astrophysics Research Project or ASTD0H3 Supervised Reading in Astrophysics Or any other AST C- or D-level course]
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 Requirement: Natural Sciences

ASTA02H3 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets

This course uses the basis developed in ASTA01H3 to extend consideration to all stars, galaxies and the universe. 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.

Prerequisite: ASTA01H3
Exclusion: AST121H, AST201H
Breadth Requirement: 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: AST101H
Breadth Requirement: Natural Sciences

ASTB23H3 Astrophysics of Stars, Galaxies and the Universe


Prerequisite: MATA30H3 & [MATA36H3 or MATA37H3] & PHYA21H3
Concurrent: MATB41H3
Exclusion: (ASTB21H3), (ASTC22H3), [ASTT21H1 & ASTT22H1]
Breadth Requirement: Natural Sciences

ASTC22H3 Astrophysics of Planetary Systems


Prerequisite: MATB41H3 & PHYA21H3
Concurrent: MATB42H3
Exclusion: (ASTB21H3), (ASTC22H3)
Breadth Requirement: Natural Sciences

ASTD01H3 Astrophysics Research Project

An application of individual effort to reading and research on a topic of current interest. The student will research on some topic of current interest in astrophysics and write a report ("monograph") on his or her work. The student is expected to gain an appreciation of the current state of knowledge about a particular topic of astrophysical interest and to become familiar with the basic methods of research. The topic will be selected by one of the instructors in consultation with the student. The bibliography is dependent upon the topic selected. Students are advised that they must obtain consent from the supervising instructor before registering for this course.

Prerequisite: ASTB23H3, ASTC25H3, 1.0 completed FCEs, cumulative GPA of at least 2.5, and permission from the coordinator.
Exclusion: ASTF42H1, ASTG01H3

ASTD02H3 Supervised Reading in 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 to either specialize further in a field of interest or to explore interdisciplinary fields not available in the regular syllabus.

Prerequisite: 1.0 credits, cumulative GPA of at least 2.5, and permission from the coordinator.
Exclusion: ASTF42H1
Breadth Requirement: Natural Sciences
Biological Sciences

Faculty List

J.W. Good, B.A. (Mount Allison), Ph.D. (McGill), Professor Emeritus
C. Nakajima, B.Sc., Ph.D., D.Sc. (University College London), Professor Emeritus
J.C. Ritchie, B.Sc. (Abderdeen), Ph.D. (Sheffield), D.Sc. (Abderdeen), F.R.S.C., Professor Emeritus
J.C. Silver, B.Sc., Ph.D. (CUNY), Professor Emeritus
A.H. Wearmouth, B.Sc. (Sydney), M.Sc. (Tasmania), Ph.D. (Glasgow), Professor Emeritus
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. Young, B.A. (Victoria), M.Sc. (McGill), Ph.D. (Western Ontario), Professor Emeritus
L.M. Campbell, B.Sc. (Alberta), M.A., Ph.D. (Toronto), Associate Professor Emeritus
R.E. Dugue, B.Sc., Ph.D. (California, Davis), Associate Professor Emeritus
M.F. Filosa, B.S. (St. Peter's), M.Sc. (Fordham), Ph.D. (Princeton), Associate Professor Emeritus
C. Pickett, B.Sc., M.A. (Toronto), Senior Lecturer Emeritus
R. Bonnin, B.Sc. (Calgary), Ph.D. (British Columbia), Professor
J.R. Brown, B.Sc. (Carleton), Ph.D. (Texas), Professor
M.M. Campbell, B.Sc., Ph.D. (Guelph), M.A. (Oroo) (Oroo), Professor
H.J. Kronzucker, B.A., B.Sc., M.D. (Wuerzburg/British Columbia), Ph.D. (British Columbia), Professor
O.C. Vanderheegde, B.Sc., M.Sc. (Western Ontario), Ph.D. (Queen's), Professor
M.C.B. Andrade, B.Sc. (Simon Fraser), M.Sc. (Toronto), Ph.D. (Cornell), Associate Professor
S. Erb, B.Sc. (Wilfrid Laurier), M.A., Ph.D. (Concordia), Associate Professor
R.R. Fulcher, B.Sc., M.Sc. (Toronto), Ph.D. (Carleton), Associate Professor
R.E. Harrison, B.Sc. (Winnipeg), M.Sc. (Manitoba), Ph.D. (Toronto), Associate Professor
C.A. Hausken, B.Sc. (Leeds), M.Sc., Ph.D. (Florida State), Associate Professor
N.R. Lovejoy, B.Sc., M.Sc. (Toronto), Ph.D. (Cornell), Associate Professor
A.C. Mason, B.Sc. (Guelph), M.Sc., Ph.D. (Toronto), Associate Professor
S.G. Reid, B.Sc., Ph.D. (Ottawa), Associate Professor
C.D. Riggs, B.Sc. (North Carolina), Ph.D. (Florida State), Associate Professor
M.M. Aarts, B.Sc., M.Sc. (Western), Ph.D. (McGill), Assistant Professor
M.W. Cadotte, B.Sc., M.Sc. (Winlock), Ph.D. (Tennessee), Assistant Professor
M.J. Fitzpatrick, B.Sc., M.Sc. (Brook), Ph.D. (Toronto), Assistant Professor
S. Gazzarrini, B.Sc., M.Sc. (Milton), Ph.D. (Tubingen), Assistant Professor
P. McGowan, B.Sc. (Concordia), M.A., Ph.D. (Ottawa), Assistant Professor
J.E. Nash, B.Sc. (Abderdeen), M.Sc., Ph.D. (Manchester), Assistant Professor
M.K. Terebusik, B.Sc., Ph.D. (U.R.A.), Buenos Aires, Argentina, Assistant Professor
J.T. Weir, Ph.D. (UBC), Assistant Professor
K.C. Welch, B.Sc. (Trinity University, MA., Ph.D. (Santa Barbara), Assistant Professor
B. Zhao, B.Sc. (Peking University), Ph.D. (Chinese Academy of Agricultural Sciences), Assistant Professor
K.N. Persaud, B.Sc. (Toronto), B.Ed. (Western Ontario), Ph.D. (McMaster), Senior Lecturer
A. Ashok, B.Sc. (Sheffield), Ph.D. (Brock), Lecturer
S.A. Brant, B.Sc., M.Sc., Ph.D. (Toronto), Lecturer
J. Schulz, B.Sc., M.Sc., Ph.D. (Paris), Lecturer

Associate Chair Undergraduate: Andrew Manson Email: amanson@ozc.utoronto.ca

Overview

Biological Sciences offers five specialist programs that include Biodiversity, Ecology and Evolution; Cell and Molecular Biology (with or without the Co-op option); Human Biology; and Integrative Biology. The Biodiversity, Ecology and Evolution specialist (BEEES) program presents a foundation for understanding how ecology and evolution shape species communities and ecosystems. In the Cell and Molecular Biology programs students explore the cellular and sub-cellular mechanisms underlying life processes. The Human Biology specialist 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 specialist program approaches biological questions in a multidisciplinary fashion, with course work in a range of biology sub-disciplines.

Biological Sciences also offers three major programs: one minor program and two joint specialist programs. The major programs (in Biodiversity, Ecology and Evolution; Human Biology; and 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, biological chemistry, health studies or psychology. The minor program in Biology is intended for students who have an interest in biology, but wish to...
from their studies in a different discipline. Two joint specialist programs are also offered by Biological Sciences in collaboration with Centennial College. These include the joint specialist program in Applied Microbiology and the joint specialist program in Paramedicine. Both joint programs include a combination of university courses and courses taken at the neighbouring Centennial College. For more information, please see the Applied Microbiology or Paramedicine sections of this 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 are encouraged to check the information that follows thoroughly. Other useful information can be found on the Department of Biological Sciences web site at www.atmc.utoronto.ca/biosci

Admission to Biological Sciences programs

Students apply to one or more Biological Sciences programs after completion of a minimum of 4.0 full credits, including 1.0 credit in Biology, 1.0 credit in Chemistry, and 0.5 credit in Mathematics or Statistics and with a cumulative grade point average (CGPA) of at least 2.0. Application for admission is made to the Registrar through ROSS, in April/May and July/August. See the UTSC Registrar's website for information on program (Subject POS) selection at: www.utoronto.ca/subjselect.

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 1st year students) on degree and program related matters. Please contact Sean Ramrattan at ramrattan@utsc.utoronto.ca, Room SW421D or 416-287-7404 if you have questions of this nature.

Enrolment in Biological Sciences courses

Priority access to B, C and D level Biology courses is given to students enrolled in Biological Sciences specialist and major programs and other programs requiring these courses. During the first two weeks of Fall/Winter registration, the courses will be restricted to these students. Provided space is available, the courses will be opened up to other students by the third week of the registration period.

Important note about Biological Sciences courses codes

Effective 2010-2011, the first three characters of Biological Sciences course codes have changed from BGY to BIO. The rest of the code remains the same. For example, BIOA01H3 is the new equivalent of the former BGYA01H3.

Second Year Core Courses

Students are strongly advised to take ALL of the 2nd year core courses (BIOB10H3, BIOB11H3, BIOB30H3, BIOB11H5, BIOB31H5, BIOB32H3, BIOB31H3) as well as a core lab course (BIOB12H3 or BIOB22H3 or BIOB32H3 or BIOB33H3) during their 2nd 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 ensure the experience needed to excel in upper-level courses. Failure to take the entire set of core courses in 2nd year can result in course timetabling conflicts and unfavourable exam schedules (eg. back-to-back exams) in your upper years. Students are unlikely to find suitable substitutes for these courses at the St. George or UTM campuses.

Science Engagement courses

For science experiential learning through community outreach and classroom in-work please see the Science Engagement section of this Calendar.

SPECIALIST PROGRAM IN BIODIVERSITY, ECOLOGY AND EVOLUTION (SCIENCE)

Supervisor: M. Andrade Email: biodiversity@utsc.utoronto.ca

This program provides 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. BEE graduates will be well 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 NGOs, 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.

Program Requirements

This program consists of 14.5 required credits. Since a total of 20 credits are required to complete a four year degree, students taking this program should also take an additional 5.5 credits of elective courses. In selecting options and electives, students should refer to the University of Toronto guidelines for program breadth and depth (see Degree Requirements). It is advised that, including electives, students should plan to take 5 credits in each year of their four year degree.

A. Required Courses

First Year

1.0 Credit of Introductory Biology Courses

BIOA01H3 Life on Earth: Unifying Principles
46 Biological Sciences

1.0 Credit of Introductory Chemistry Courses
CBMA101H3 Introductory Chemistry I: Structure and Bonding
CBMA111H3 Introductory Chemistry II: Reactions and Mechanisms

1.0 Credit in Mathematics
MATA38H3 & MATA39H3 Calculus I for Biological and Physical Sciences \& Calculus II for Biological Sciences

0.5 Credit in Physics
Choose from:
PHYA10H3 Introduction to Physics IA
PHYA11H3 Introduction to Physics IB

0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Programming
CSCA21H3 Computer Science for the Sciences
PSCM71H3 Introduction to Scientific Computing (this course could also be taken in second year)

Second Year
3.0 Credits of Biology Core Courses
BIOB310H3 Cell Biology
BIOB311H3 Molecular Aspects of Cellular and Genetic Processes
BIOB360H3 Mammalian Physiology I
BIOB311H3 Plant Physiology
BIOB360H3 Ecology
BIOB351H3 Evolutionary Biology

0.5 Credit of Biology Core Labs
BIOB320H3 Ecology and Evolutionary Biology Laboratory

0.5 Credit in Statistics
Choose from:
STAT232H3 Statistics I
PSYD07H3 Data Analysis in Psychology

Third Year
2.0 Credits of C-level Ecology and Evolution Foundation Courses
BIOD610H3 Evolutionary Genetics and Genomics
BIOD510H3 Macroevolution
BIOD510H3 Advanced Population Ecology
BIOD510H3 Community Ecology and Environmental Biology

Third/Fourth Year
4.5 credits of C- & D-level courses from Bins 1 and 2 below. This must include at least one credit from each bin and at least one credit total at the D-level.

Bin 1: C- & D-level Ecology and Evolution Courses
Choose from:
BIOD511H3 Tropical Biodiversity Field Course
BIOD525H3 Ecology Field Course
BIOD581H3 Biological Consequences of Global Change
BIOD531H3 Conservation Biology
BIOD551H3 Environmental Toxicology
BIOD671H3 Inter-University Biology Field Course
BIOD551H3 Genomics
BIOD521H3 Special Topics in Biodiversity and Systematics
BIOD601H3 Spatial Ecology
BIOD621H3 Species and Speciation
BIOD661H3 Causes & Consequences of Biodiversity
EESC341H3 Biodiversity and Biogeography

Bin 2: C- & D-level Organismal Biology Courses
Choose from:
BIOC3703 Comparative Plant Form and Function
BIOC3803 Plants and Society
BIOC5403 Animal Behaviour
BIOC6203 Role of Zoos in Conservation
BIOD2003 Fungal Biology & Pathogenesis
BIOE3003 Comparative Animal Physiology
BIOE3703 Biology of Plant Stress
BIOE4003 Exercise Physiology
BIOE4503 Animal Communication
BIOE5503 Special Topics in Behavioural Ecology
EESC3003 Microbial Biochemistry

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.

BIOE9603 Supervised Study in Biology
BIOE9603 Directed Research in Biology

C. Complementary Elective Courses (optional)

This list of courses from other departments complements a degree in Biodiversity, Ecology and Evolution and hence students may want to consider these courses as potential electives. Please note that some of these courses require prerequisites not included in this program. Students are not required to take any of these courses; they are provided for guidance only.

EISA0001 Introduction to Planet Earth
EISA0101 Human Health and the Environment
EISB1603 Feeding Humans - The Cost to the Planet
EISD1503 Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments
GGRA2003 Geographic Information Systems (GIS) and Empirical Reasoning
GJR0203 Environmental Conservation and Sustainable Development
NROB4003 Neuroanatomy Laboratory
NROC4003 Neurobiology
NROC5003 Learning and Motivation
NROC5603 Sensory and Motor Systems
PSYA1601 Introductory Psychology: Part I
PSYA1602 Introductory Psychology: Part II
PSYB4501 Behaviour Modification: Origins and Applications
PSYB4601 An Introduction to Physiological Psychology

SPECIALIST PROGRAM IN CELL AND MOLECULAR BIOLOGY (SCIENCE)

The Cell and Molecular Biology 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 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.

Program Requirements

This program consists of 13.5 required credits. Since a total of 20 credits are required to complete a degree, students taking this program should also take an additional 6.5 credits of elective courses. In selecting options and electives, students should refer to the University of Toronto guidelines for program breadth and depth (see Degree Requirements).

First Year

1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

1.0 Credit of Introductory Chemistry Courses
CHMA1003 Introductory Chemistry I: Structure and Bonding
CHMA1103 Introductory Chemistry II: Reactions and Mechanisms
1.0 Credit in Mathematics
Choose from:
MAT286H3 & MAT255H5 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences
MAT358H3 & MAT356H5 Calculus I for Biological and Physical Sciences & Calculus II for Physical Sciences

1.0 Credit in Physics
Choose 0.5 credit from:
PHYA101H3 Introduction to Physics IA
PHYA111H3 Introduction to Physics IB
Choose 0.5 credit from:
PHYA211H3 Introduction to Physics II A
PHYA221H3 Introduction to Physics II B

0.5 Credit in Statistics
Choose from:
STAB221H3 Statistics I (this course could also be taken in second year)
PSYB070H3 Data Analysis in Psychology (this course could also be taken in second year)

Second Year
3.0 Credits of Biology Core Courses
BIOB1001H3 Cell Biology
BIOB1131H3 Molecular Aspects of Cellular and Genetic Processes
BIOB3061H3 Mammalian Physiology I
BIOB3111H3 Plant Physiology
BIOB5501H3 Ecology
BIOB5101H3 Evolutionary Biology

0.5 Credit of Biology Core Labs
BIOB1211H3 Cell and Molecular Biology Laboratory

1.0 Credit of Organic Chemistry Courses
CHMB3131H3 Organic Chemistry I
CHMB4213H3 Organic Chemistry II

Third Year
2.5 Credits of Biology C-level Courses
BIOC1101H3 Biochemistry I: Proteins & Enzymes
BIOC1331H3 Biochemistry II: Metabolism
BIOC1511H3 Genetics
BIOC1701H3 Microbiology: The Bacterial Cell
BIOC2331H3 Practical Approaches to Biochemistry

0.5 Credit in Computer Science
Choose from:
CSA3081H3 Introduction to Computer Programming
CSA3110H3 Introduction to Scientific Computing

Third/Fourth Year
0.5 Credit of Cognate Biology Courses
Choose from:
BIOC4141H3 Genes, Environment and Behaviour
BIOC4191H3 Animal Developmental Biology
BIOC2113H3 Vertebrate Histology: Cells and Tissues
(BGVC2233H3) Vertebrate Histology: Organs
BIOC3311H3 Molecular Aspects of Plant Development
BIOC3711H3 Biology of Plant Stress

Fourth Year
0.5 Credit in Advanced Molecular Techniques
BID2111H3 Molecular Biology Laboratory I: Host, Vectors and Cloning

0.5 Credit of D-level Research-oriented "Cell & Molecular" Course Work
Choose from:
BIOI73 Seminar in Cellular Microbiology
BIOI93 Genetics and Disease
BIOII23H Molecular Biology Laboratory I: Nucleic Acids and Proteins
BIOII33 Heterocyclic Compounds
BIOII33 Special Topics in Cell Biology
BIOII53 Genomics
BIOII73 Molecular Endocrinology
BIOII93 Supervised Study in Biology
BIOII93 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 CELL AND MOLECULAR BIOLOGY (SCIENCE)

Supervisor: C. Hazenkamp. Email: cell-and-molecular-biology@u.university.ca

Co-op Contact: askco@u.university.ca

The Cell and Molecular Biology 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 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 cognitive 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 Cell and Molecular Biology 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 the Co-operative Programs section of this Calendar.

Program Admission

Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this Calendar.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website: www.u.university.ca/registrar. The minimum qualifications for entry are 5.0 credits including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, (MATA22H3 & MATA21H3) or {MATA30H3 & (MATA35H3 or MATA36H3),} (PHYA1103 or PHYA1115), plus a cumulative GPA of at least 2.75.

Program Requirements

This program consists of 13.5 required credits plus two work-terms. Since a total of 20 credits are required to complete a degree, students taking this program should also take an additional 6.5 credits of elective courses. In selecting options and electives, students should refer to the University of Toronto guidelines for program breadth and depth (see Degree Requirements).

A. Core Requirements

First Year

1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function, and Interactions

1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

1.0 Credit in Mathematics
Choose from:
MATA35H3 & MATA36H3 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences
MATA35H3 & MATA36H3 Calculus I for Biological and Physical Sciences & Calculus II for Physical Sciences

1.0 Credit in Physics
Choose 0.5 credit from:
PHYA103H Introduction to Physics IA
PHYA111H Introduction to Physics IB

Choose 0.5 credit from:
PHYA2103 Introduction to Physics IIA
PHYA2223 Introduction to Physics IIB
0.5 Credit in Statistics
Choose from:
STAB221H1 Statistics I (this course could also be taken in second year)
PSYB07H1 Data Analysis in Psychology (this course could also be taken in second year)

Second Year
3.0 Credits of Biology Core Courses
BIOB110H3 Cell Biology
BIOB111H3 Molecular Aspects of Cellular and Genetic Processes
BIOB501H3 Mammalian Physiology I
BIOB511H3 Plant Physiology
BIOB505H3 Ecology
BIOB519H3 Evolutionary Biology

0.5 Credits of Biology Core Labs
BIOB120H3 Cell and Molecular Biology Laboratory

1.0 Credit of Organic Chemistry Courses
CHMB411H3 Organic Chemistry I
CHMB421H3 Organic Chemistry II
Computer science might be taken in this year and will enhance Coop placement options.

Third Year
2.5 Credits of Biology C-level Courses
BIOC121H3 Biochemistry I: Proteins & Enzymes
BIOC131H3 Biochemistry II: Bioenergetics and Metabolism
BIOC251H3 Genetics
BIOC173H3 Microbiology: The Bacterial Cell
BIOC231H3 Practical Approaches to Biochemistry

0.5 Credit in Computer Science
Choose from:
CSCA081H3 Introduction to Computer Programming
CSCA201H3 Computer Science for the Sciences
PSCB571H3 Introduction to Scientific Computing

Third/Fourth Year
0.5 Credit of Cognate Biology Courses
Choose from:
BIOC311H3 Genes, Environment and Behaviour
BIOC191H3 Animal Developmental Biology
BIOC211H3 Vertebrate Histology: Cells and Tissues
BIOC221H3 Vertebrate Histology: Organ
BIOC311H3 Molecular Aspects of Plant Development
BIOD371H3 Biology of Plant Stress

Fourth Year
0.5 Credit in Advanced Molecular Techniques
BIOD211H3 Molecular Biology Laboratory I: Host, Vectors and Cloning

0.5 Credit of C-level Research-Oriented "Cell & Molecular" Course Work
Choose from:
BIOD171H3 Seminars in Cellular Microbiology
BIOD191H3 Epigenetics in Health and Disease
BIDO221H3 Molecular Biology Laboratory II: Nucleic Acids and Proteins
BIDO231H3 Special Topics in Cell Biology
BIDO251H3 Genomics
BIDO271H3 Molecular Endocrinology
BIDO291H3 Supervised Study in Biology
BIDO98Y3 Directed Research in Biology
B. Work Term Requirements

The program requires eight four-month terms of study and two four-month work terms. Practical work experience in the fields of cell biology, genetics, molecular biology or biotechnology are alternated with study terms to enhance academic studies and develop professional and personal skills. Students must submit both an oral and written report on each work term for evaluation and will also complete a standardized form, assessing the quality of their co-op work term. Students are expected to do at least one of their work placements in the fall or winter term.

To be eligible for their first work term, students must be in good standing in the program and have completed at least 10.0 credits, including [BIOA40H3 or BIOA41H3] or [BIOA42H3 or BIOA43H3]. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term.

To be eligible for their second work term placement, students must have completed at least 12.5 credits which must include [BIOC12H3 & BIOC15H3] or [BIOC13H3 & BIOC17H3] and have received a satisfactory evaluation for their performance and for their reports on their first work term. Completion of Statistics and Computer Science course work, before the second placement, is highly recommended.

SPECIALIST PROGRAM IN CONSERVATION BIOLOGY (SCIENCE)

The specialist program in Conservation Biology has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in the program are able to complete it. Students who had intended to enter the program in 2010/2011 might want to consider the new program in Biodiversity, Ecology & Evolution.

SPECIALIST (CO-OPTERATIVE) PROGRAM IN CONSERVATION BIOLOGY (SCIENCE)

The specialist (co-operative) program in Conservation Biology has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in the program are able to complete it.

SPECIALIST PROGRAM IN HUMAN BIOLOGY (SCIENCE)

Supervisor: A. Ashok Email: human-biology@uottawa.ca

The Human Biology specialist program 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, histology, anthropology, biochemistry, endocrinology, 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.

Program Requirements

This Program consists of 15.5 credits. As a total of 20 credits are required to complete a degree, students taking this program should also take at additional 4.5 credits of elective courses. In selecting options and electives, students should refer to the University of Toronto guidelines for program breadth and depth (see Degree Requirements).

Required Courses and Suggested Course Sequence

First Year
1.0 Credit of Introductory Biology Courses
BIOA40H3 Life on Earth: Unifying Principles
BIOA41H3 Life on Earth: Functions, Structure and Evolution

1.0 Credit of Introductory Chemistry Courses
CHEM11H3 Introductory Chemistry I: Structure and Bonding
CHEM12H3 Introductory Chemistry II: Reactions and Mechanisms

1.0 Credit of Mathematics
MAT135H3 & MAT136H3 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences

1.0 Credit of Introductory Physics Courses
PHYA11H3 Introduction to Physics I

PHYS229H3 Introduction to Physics III
PHYS303H3 Introductory Psychology: Part I
PHYS304H3 Introductory Psychology: Part II

Second Year

3.0 Credits of Biology Core Courses
BIOB101H3 Cell Biology
BIOB111H3 Molecular Aspects of Cellular and Genetic Processes
BIOB200H3 Mammalian Physiology I
BIOB211H3 Plant Physiology
BIOB250H3 Ecology
BIOB511H3 Evolutionary Biology

1.0 Credit of Biology Core Labs
BIOB321H3 Animal Physiology Laboratory
BIOB331H3 Human Development and Anatomy Laboratory

1.0 Credit of Organic Chemistry Courses
CHMB411H3 Organic Chemistry I
CHMB421H3 Organic Chemistry II

Third/Fourth Years

3.5 Credits of C-level Biology Courses
Choose From:
BIOC121H3 Biochemistry I: Proteins and Enzymes
BIOC131H3 Biochemistry II: Biocatalysis and Metabolism
BIOC141H3 Genes, Environment and Behaviour
BIOC151H3 Genetics
BIOC161H3 Evolutionary Genes and Genomes
BIOC171H3 Microbiology: The Bacterial Cell
BIOC181H3 Animal Developmental Biology
BIOC211H3 Vertebrate Histology: Cells and Tissues
BIOC221H3 Vertebrate Histology: Organs
BIOC331H3 Mammalian Physiology II: Lecture and Laboratory
BIOC281H3 Biological Consequences of Global Change
BIOC251H3 Environmental Toxicology

1.0 Credit of D-level Biology Courses
Choose From:
BIOD171H3 Seminars in Cellular Microbiology
BIOD181H3 Epigenetics in Health and Disease
BIOD261H3 Fungal Biology and Pathogenesis
BIOD271H3 Molecular Endocrinology
BIOD291H3 Pathobiology of Human Disease
BIOD311H3 Comparative Animal Physiology
BIOD431H3 Exercise Physiology
BIOD511H3 Pathologies of the Nervous System

0.5 Credits in Statistics
Choose From:
STAR222H3 Statistics I
PSYB970H3 Data Analysis in Psychology

0.5 Credits in Psychology
Choose From: Any B-, C- or D- Level Psychology Course

SPECIALIST PROGRAM IN INTEGRATIVE BIOLOGY (SCIENCE)
Supervisor: K. Penaai. Email: integrative-biology@utsc.utoronto.ca
In today’s rapidly changing world, the development of solutions to combat some of the most pressing global challenges such as climate change, emerging diseases, hunger and species extinction, requires an integrative approach in which expertise is drawn from disparate biological and other disciplines. The specialist program in Integrative Biology provides the student with a solid knowledge base in key core and foundational areas of biology while also providing a breadth of knowledge to support more specialized studies and focused training in a range of disciplines (for examples, see below under ‘Routes to Specialization’). Students who complete this program will be well positioned for a career in many aspects of the biological sciences or to undertake further studies at the professional or graduate level.

Program Requirements
This program consists of 14.5 required credits including at least 4.0 credits at the C- or D-level of which at least 1.0 must be at the D-level. Since a total of 20 credits are required to complete a four-year degree, students taking this program should also take an additional 5.5 credits of elective courses. In selecting options and electives students should refer to the University of Toronto guidelines for program breadth and depth (see Degree Requirements). It is advised that, including electives, students should plan to take 5 credits in each year of their four-year degree.

A. Required Courses
First Year
1.0 Credit of Introductory Biology Courses
BIOA00H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
1.0 Credit in Chemistry
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
1.0 Credit in Mathematics
MATA30H3 & MATA35H3 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences
0.5 Credit in Physics
Choose from:
PHYA10H3 Introduction to Physics IA
PHYA11H3 Introduction to Physics IB
0.5 Credit in Computer Science
Choose from:
CSCA06H3 Introduction to Computer Programming
CSCA20H3 Computer Science for the Sciences
PSCB37H3 Introduction to Scientific Computing (this course could also be taken in second year)
Second Year
3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB30H3 Mammalian Physiology I
BIOB31H3 Plant Physiology
BIOB59H3 Ecology
BIOB51H3 Evolutionary Biology
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
0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology
Third Year
1.5 Credits of Biology Foundation Courses
BIOC150H3 Genetics
BIOC170H3 Microbiology: The Bacterial Cell
BIOC540H3 Animal Behaviour

Third/Fourth Year

0.5 Credit of Advanced Courses in Physiology, Biochemistry and Neurobiology
Choose from:
BIOC120H3 Biochemistry I: Proteins and Enzymes
BIOC121H3 Biochemistry II: Bioenergetics and Metabolism
BIOC239H3 Practical Approaches to Biochemistry
BIOC250H3 Mammalian Physiology II: Lecture and Laboratory
BIOC240H3 Mammalian Physiology II: Lecture
BIOC529H3 Environmental Toxicology
ANTC07H3 Foundations in Epidemiology
NROC34H3 Neuromethodology
NROC56H3 Learning and Motivation
NROC54H3 Sensory and Motor Systems
PSYC31H1 Clinical Neuropsychology
BIOC270H3 Molecular Endocrinology
BIOC290H3 Pathobiology of Human Disease
BIOC430H3 Exercise Physiology
BIOC450H3 Pathologies of the Nervous System
NROD67H3 Psychobiology of Aging

0.5 Credit of Advanced Courses in Ecology and Conservation
Choose from:
BIOC300H3 Macroevolution
BIOC510H3 Tropical Biodiversity Field Course
BIOC520H3 Ecology Field Course
BIOC550H3 Biological Consequences of Global Change
BIOC590H3 Advanced Population Ecology
BIOC610H3 Community Ecology and Environmental Biology
BIOC620H3 Role of Zoos in Conservation
BIOC630H3 Conservation Biology
BIOC670H3 Inter-University Biology Field Course
EECS40H3 Biodiversity and Biogeography
BIOC520H3 Special Topics in Biodiversity and Systematics
BIOC680H3 Spatial Ecology
BIOC620H3 Species and Speciation
BIOC660H3 Causes and Consequences of Diversity

0.5 Credit of Advanced Courses in Genes and Development
Choose from:
BIOC440H3 Genes, Environment and Behaviour
BIOC460H3 Evolutionary Genetics and Genomics
BIOC490H3 Animal Developmental Biology
BIOC510H3 Plant Development
BIOC190H3 Epigenetics in Health and Disease
BIOC230H3 Special Topics in Cell Biology
BIOC250H3 Genomics
BIOC210H3 Molecular Biology Lab 1: Host, Vectors & Cloning
BIOC220H3 Molecular Biology Laboratory II: Nucleic Acids and Proteins

0.5 Credit of Advanced Courses in Organismal Biology
Choose from:
BIOC210H3 Vertebrate Histology: Cells and Tissues
(ROY22H3) Vertebrate Histology: Organs
ANTC120H3 Research on the Social Behaviour of Non-Human Primates
ANTC080H3 Deconstructing Epidemics
EECS300H3 Microbial Biogeochemistry
3.0 Credits of Additional C- or D-Level Biology Courses

Choose from:

- Any Bio (or formerly BGY) C- or D-level course offered by the department.

Note: This includes the Biology Team Research, Supervised Studies and Directed Research courses (BIOC99H1, BIOD95H3, BIOD98Y3 and BIOD99Y5).

Note that: NROC3483H (Neuroethology), EESC0494H (Biodiversity and Biogeography) and EESC3081H (Microbial Biochemistry) may also be used toward fulfilling this requirement, if not already used toward fulfilling one of the other requirements above.

B. Routes to Specialisation (optional)

A key advantage of the specialist programs in Integrative Biology is the ability for students to readily specialise in areas of particular interest. Please note that students are not required to follow any of these suggested routes. They are provided for guidance only.

- For students with a particular interest in "The Impact of Environment and Climate Change on the Biology of Ecosystems", you should consider including some or all of the following courses in your program: BIOC252H1 (Ecology and Evolutionary Biology Lab), BIOC525H1 (Ecology Field Course), BIOC535H1 (Biological Consequences of Global Change), BIOC591H3 (Advanced Population Ecology), BIOC651H3 (Community Ecology and Environmental Biology) and BIOC671H3 (Inter-University Biology Field Course).

- For students with a particular interest in "The Conservation and Biodiversity of Organisms", you should consider including some or all of the following courses in your program: BIOC3151H3 (Tropical Biodiversity Field Course), BIOC626H3 (Role of Zones in Conservation), BIOC635H1 (Conservation Biology), BIOD081H3 (Special Topics in Biodiversity and Systematics), BIOD082H3 (Spatial Ecology) & BIOD661H3 (Causes and Consequences of Biodiversity).

- For students with a particular interest in "Animal Physiology", you should consider including some or all of the following courses in your program: BIOD321H3 (Animal Physiology Laboratory), BIOC331H3 or BIOC343H3 (Mammalian Physiology I), BIOD331H3 (Comparative Animal Physiology), BIOD431H3 (Exercise Physiology) & BIOD491H3 (Pathology of Human Disease).

- For students with a particular interest in "Ecophysiology", you should consider including some or all of the following courses in your program: BIOC250H1 (Environmental Toxicology), EESC0494H (Biodiversity and Biogeography), BIOC631H3 (Comparative Animal Physiology) & BIOC671H3 (Biology of Plant Stress).

- For students with a particular interest in "Infection and Disease" or "clinically-oriented topics", you should consider including some or all of the following courses in your program: BIOC331H3 (Human Development and Anatomy), BIOC331H3 or BIOC431H3 (Mammalian Physiology II), ANTC671H3 (Foundations in Epidemiology) or ANTC681H3 (Decolonizing Epidemiology), BIOC211H3 (Vertebrate Histology: Cells and Tissues), BIOD615H3 (Pathologies of the Nervous System), BIOD253H3 (Pathology of Human Disease), BIOD261H3 (Fungal Biology and Pathogenesis), BIOD7181H3 (Seminar in Cellular Microbiology) & BIOD253H1 (Genomics).

- For students with a particular interest in "Plant and Microbial Biology", you should consider including some or all of the following courses in your program: BIOC311H3 (Molecular Aspects of Plant Development), EESC031H3 (Microbial Biotechnology), BIOC717H3 (Seminar in Cellular Microbiology) and BIOD371H3 (Biology of Plant Stress).

- For students with a particular interest in "Behavioural Biology" you should consider including some or all of the following courses in your program: NROC3483H (Neuroethology), BIOD331H3 (Special Topics in Behavioural Ecology), BIOC151H3 (Comparative Animal Physiology), NROC3483H (Neuroethology), BIOD331H3 (Special Topics in Behavioural Ecology), BIOC211H3 (Comparative Animal Physiology) & BIOC451H3 (Behavioural Genetics).

- For students with a particular interest in "Behavioural Genetics", you should consider including some or all of the following courses in your program: BIOC311H3 (Molecular Aspects of Plant Development), EESC031H3 (Microbial Biotechnology), BIOC717H3 (Seminar in Cellular Microbiology) and BIOD371H3 (Biology of Plant Stress).

- For students with a particular interest in "The Evolution of Development" (i.e., "evolutionary development"), you should consider including some or all of the following courses in your program: BIOC161H3 (Evolutionary Genetics and Genomics), NROC3483H (Neuroethology), BIOD331H3 (Special Topics in Behavioural Ecology), BIOC221H3 (Special Topics in Cell Biology), BIOD253H1 (Genomics), BIOD221H3 (Molecular Biology Laboratory II: Nucleic Acids and Proteins) and BIOD451H3 (Animal Communication).
C. Complementary Elective Courses (optional)

When selecting electives, students may wish to consider the following courses that may be complementary to their program. However, keep in mind that minimum breadth requirements must be met to complete a degree:

- ANTC21H3 Culture, Science and Biotechnology: Redefining the "Natural" Order of Things
- ANTC27H3 Human Origins: New Discoveries
- ANTC23H3 Primate Sexuality
- ANTC41H3 Environmental Stress, Culture and Human Adaptability
- ANTC47H3 Human and Primate Comparative Osteology
- ANTC48H3 Advanced Topics in Human Osteology
- ANTC60H3 Medical Anthropology: Illness and Healing in Cultural Perspective
- ANTC62H3 Medical Anthropology: Biological and Demographic Perspectives
- ANTD14H3 Biomedical Anthropology
- ANTD17H3 Medical Osteology, Public Health Perspectives on Human Skeletal Health
- ANTD25H3 Medical Primatology: Public Health Perspectives on Zoonotic Diseases
- CHMI27H3 Bio-Organic Chemistry
- EES316H3 Feeding Humans - The Cost to the Planet
- HIS303H3 History of Animals and People
- HLT230H3 Policies of Canadian Health Studies
- IEC303H3 History of Animals and People
- IEC404H3 Defining the Human II
- NROC61H3 Learning and Motivation
- NROC63H3 Neuroscience Laboratory
- NROC64H3 Sensory and Motor Systems
- NROC69H3 Synaptic Organization and Physiology of the Brain
- NROC66H3 Advanced Neuroscience Laboratory
- PHIL809H3 Biomedical Ethics
- POLC59H3 Canadian Environmental Politics
- PSYC62H3 Drugs and the Brain
- PSYD2H3 Genes, Brain and the Development of Mind
- STAC52H3 Experimental Design

MAJOR PROGRAM IN BIODIVERSITY, ECOLOGY AND EVOLUTION (SCIENCE)

**Supervisor:** M. Andreje Email: biodiversity@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.

**Program Requirements**

This program consists of 8.5 required credits. To complete their degree, students should combine this major program with another major program or two minor programs, from disciplines outside of biology. Note however that this program cannot be combined with the major program in Human Biology, the major program in Biology or the minor program in Biology. When selecting their course of studies, students should refer to the University of Toronto guidelines for program breadth and depth (see Degree Requirements).

**First Year**

1.0 Credit of Biology Introductory Courses

- BIOA01H3 Life on Earth: Unifying Principles
- BIOA02H3 Life on Earth: Form, Function and Interactions

1.0 Credit in Chemistry

- CHMA10H3 Introduction to Chemistry I: Structure and Bonding
- CHMA11H3 Introduction to Chemistry II: Reactions and Mechanisms

0.5 Credit in Mathematics or Statistics

- Choose from:
  - MATA30H3 Calculus I for Biological and Physical Sciences
  - STAB22H3 Statistics I
  - PSYB07H3 Data Analysis in Psychology
Second Year
3.0 Credits of Biology Core Courses
BIOB103H Cell Biology
BIOB111H Molecular Aspects of Cellular and Genetic Processes
BIOB304H Mammalian Physiology I
BIOB313H Plant Physiology
BIOB504H Ecology
BIOB513H Evolutionary Biology

0.5 Credit of the Ecology & Evolution Core Lab
BIOB525H Ecology and Evolutionary Biology Laboratory

Third Year
1.0 Credit of Ecology & Evolution Foundation Courses
Choose from:
BIOC163H Evolutionary Genetics and Genomics
BIOC509H Macroevolution
BIOC593H Advanced Population Ecology
BIOC613H Community Ecology and Environmental Biology

1.0 Credit of Other C-level Courses
Choose from:
BIOC373H Comparative Plant Form and Function
BIOC383H Plants and Society
BIOC513H Tropical Biodiversity Field Course
BIOC523H Ecology Field Course
BIOC543H Animal Behaviour
BIOC583H Biological Consequences of Global Change
BIOC623H Role of Zoos in Conservation
BIOC633H Conservation Biology
BIOC653H Environmental Toxicology
BIOC673H Inter-University Biology Field Course
EEDC393H Microbial Biogeochemistry

Fourth Year
0.5 Credit of D-level Courses
Choose from:
BIDO253H Genomics
BIDO263H Fungal Biology & Pathogenesis
BIDO333H Comparative Animal Physiology
BIDO433H Exercise Physiology
BIDO453H Animal Communication
BIDO523H Special Topics in Biodiversity and Systematics
BIDO533H Special Topics in Behavioural Ecology
BIDO663H Spatial Ecology
BIDO693H Species and Speciation
BIDO663H Causes & Consequences of Biodiversity
EEDD153H Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments

MAJOR PROGRAM IN BIOLOGY (SCIENCE)

Program Requirements
This program consists of 8.0 required credits. To complete their degree, students should combine this major program with another major program, or two minor programs, from disciplines outside of biology. When selecting their course of studies, students should refer to the University of Toronto guidelines for program breadth and depth (see Degree Requirements).
First Year
1.0 Credit of Introductory Biology Courses
BIOA00H3 Life on Earth: Unifying Principles
BIOA01H3 Life on Earth: Form, Function and Interactions
1.0 Credit in Chemistry
CHMA1H3 Introductory Chemistry I: Structure and Bonding
CHMA1H3 Introductory Chemistry II: Reactions and Mechanisms
0.5 Credit in Mathematics or Statistics
Choose from:
MATA36H3 Calculus I for Biological and Physical Sciences
STA120H3 Statistics 1 (this course could also be taken in second year)
PSYB01H3 Data Analysis in Psychology (this course could also be taken in second year)

Second Year
3.0 Credits of Biology Core Courses
BIOB11H3 Cell Biology
BIOB14H3 Molecular Aspects of Cellular and Genetic Processes
BIOB23H3 mammalian Physiology I
BIOB31H3 Plant Physiology
BIOB35H3 Ecology
BIOB51H3 Evolutionary Biology

0.5 Credit of Biology Core Labs
Choose from:
BIOB12H3 Cell and Molecular Biology Laboratory
BIOB22H3 Animal Physiology Laboratory
BIOB32H3 Human Development and Anatomy Laboratory
BIOB52H3 Ecology and Evolutionary Biology Laboratory

Third Year
1.5 Credits of Additional C-Level Biology Courses
Choose from:
Any BIO C-level courses offered by the department.
Note that NROCH4H3 (Neuroethology), EESCS3H3 (Biodiversity and Biogeography) and EESCS3H3 (Microbial Biogeochimistry) may also be used toward fulfilling this requirement.

Fourth Year
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 (BIOE95H3, BIOE98Y3 & BIOE99Y3).

MAJOR PROGRAM IN HUMAN BIOLOGY (SCIENCE)
Supervisor: A. Ashok Email: human-biology@arts.utoronto.ca
The Human Biology major program 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.

Program Requirements:
This program consists of 8.5 credits. To complete their degree, students should combine this major program with another major program, or two minor programs, from disciplines outside of biology. When selecting their course of studies, students should refer to the University of Toronto guidelines for program breadth and depth (see Degree Requirements).

Required Courses and Suggested Course Sequence

First Year
1.0 Credit of Biology Introductory Courses
BIOA00H3 Life on Earth: Unifying Principles
BIOA01H3 Life on Earth: Form, Function and Interactions
1.0 Credit in Chemistry Introductory Courses
CHMA108H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

1.0 Credit in Introductory Psychology Courses
PSYA01H3 Introductory Psychology: Part I
PSYA02H3 Introductory Psychology: Part II

0.5 Credit in Calculus or Statistics
Choose From:
- MAT130H1 Calculus I for Biological and Physical Sciences
- STAB22H3 Statistics I
- PSYB17H3 Data Analysis in Psychology

Second Year

2.5 Credits of Biology Core Courses
- BIOB10H3 Cell Biology
- BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
- BIOB18H3 Mammalian Physiology I
- BIOB19H3 Ecology
- BIOB13H3 Evolutionary Biology

0.5 Credit in a Biology Core Lab
- BIOB33H3 Human Development and Anatomy

Third/Fourth Years

1.5 Credits of Additional C-Level Courses
Choose From:
- BIOC14H3 Genes, Environment and Behaviour
- BIOC15H3 Genetics
- BIOC16H3 Evolutionary Genetics and Genomics
- BIOC17H3 Microbiology: The Bacterial Cell
- BIOC19H3 Animal Developmental Biology
- BIOC21H3 Vertebrate Histology: Cells and Tissues
- BIOC33H3 Mammalian Physiology II: Lecture and Laboratory
- BIOC34H3 Mammalian Physiology II: Lecture
- BIOC55H3 Biological Consequences of Global Change
- BIOC65H3 Environmental Toxicology
- NROC65H3 Learning and Motivation
- NROC66H3 Sensory and Motor Systems
- NROC69H3 Synaptic Organisation and Physiology of the Brain

0.5 Credit of Additional D-Level Biology Courses
Choose From:
- BIDO17H3 Seminars in Cellular Microbiology
- BIDO19H3 Epigenetics in Health and Disease
- BIDO25H3 Fungal Biology and Pathogens
- BIDO29H3 Pathology of Human Disease
- BIDO31H3 Comparative Animal Physiology
- BIDO43H3 Exercise Physiology
- BIDO63H3 Pathologies of the Nervous System
- BIDO65H3 Supervised Study in Biology (topic must be human-related and approved by the program supervisor)
- NIDO66H3 Drug Addiction
- NIDO67H3 Psychology of Aging

MINOR PROGRAM IN BIOLOGY (SCIENCE)
Supervisor: K. Persaud Email: biology-minor@utsc.utoronto.ca

Program Requirements
This program must include one credit of the introductory biology courses (BIOA01H3 & BIOA02H3) plus 3.0 other credits in Biology, of which at least one credit must be at the C- or D-level.
Note that NROC34H3 (Neuroethology), EESC04H3 (Biodiversity and Biogeography) and EESC38H3 (Microbial Biogeochemistry) may also be used toward fulfilling this requirement.
SPECIALIST (QUANT) PROGRAM IN APPLIED MICROBIOLOGY (SCIENCE)
See the Applied Microbiology section of this Calendar for program requirements.

SPECIALIST (QUANT) PROGRAM IN PARAMEDICINE (SCIENCE)
See the Paramedicine section of this Calendar for program requirements.

OTHER PROGRAMS WITH BIOLOGY CONTENT
Note that Biological Sciences courses are also used to fulfill some requirements in the following major or specialist programs:
Biochemistry, Biological Chemistry, Environmental Science, Health Studies, Natural Sciences and Neuroscience. Please see the detailed program descriptions elsewhere in this calendar.

IMPORTANT NOTE ABOUT BIOLOGICAL SCIENCES COURSE CODES
Effective 2010/2011, the first three characters of Biological Sciences course codes have changed from BGY to BIO. The rest of the course remains the same. For example, BIOA01H3 is the new equivalent of the former BGYA01H3.

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.
Exclusion: BIO150Y, BIOA01H3
Breadth Requirement: 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.
Exclusion: BIO150Y, (BIOG02H3)
Breadth Requirement: Natural Sciences

BIOB10H3 Cell Biology
This course is designed to introduce theory and modern experimental techniques in cell biology. Emphasis will be on eukaryotic cells. Structure and function of major animal and plant organelles will be covered. Subsequent topics include the role of the cytoskeleton, plasma membrane and extracellular matrix will also be detailed in the context of cell interactions with the environment.
Exclusion: BIOA02H3, BIOA01H3, BCHA1H3, BCHA10H3
Breadth Requirement: Natural Sciences

BIOB10Y3/10Y4 Cell Biology and Molecular Aspects of Genetic Processes
A course designed to introduce theory and modern experimental techniques in cell and molecular genetics. Emphasis will be on euukaryotic cells. First half topics include: Structure and function of major animal and plant organelles, the role of the cytoskeleton, the role of the plasma membrane and extracellular matrix in the context of cellular interactions with the environment. In the second half of the course topics will include structure and function of the nucleus, DNA replication and cell cycle control, transcription and translation, gene regulation, signal transduction and basic aspects of immunology. Please note this course contains the content of both BIOB10Y3 and BIOB10Y4.
Exclusion: BIOB10Y3, BIOB10Y4
Breadth Requirement: 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.
Exclusion: BIOB10H3
Breadth Requirement: Natural Sciences

BIOB12H3 Cell and Molecular Biology Laboratory
A practical introduction to experimentation in cell and molecular biology. Six modules will introduce students to concepts and techniques in the general preparation of solutions and buffers, microbiology, molecular biology, biochemistry, microscopy and data manipulation and communication skills.
Exclusion: BIOB11H3, BIOB10Y3
Enrollment Limit: Priority will be given to students enrolled in the specialist programs in Applied Microbiology, Cell and Molecular Biology (C+M and non-C+M), Biological Chemistry and the major program in Biochemistry. Additional students will be admitted as space permits.

BIOB30H3 Mammalian Physiology
A core animal physiology course covering the regulatory mechanisms which control and coordinate the functioning of the body such as nerve action potentials, synaptic transmission, muscle contraction, neuromuscular systems, sensory receptors, and hormonal action.
Exclusion: BIOA01H3, BIOA02H3
Breadth Requirement: Natural Sciences
BIOB101H3 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: BIOA00H3 & BIOA02H3
Exclusion: BIO251Y, (BOT251Y, (BOYB31JH3)
Breadth Requirement: Natural Sciences

BIOB329H3 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, pharmacological regulation of heart rate, kidney function, nerve function and action potentials, synaptic transmission, skeletal muscle function and mechanoreception.
Corequisite: BIOB30H3 Exclusion: (BOYB322J, BIOB325Y, BIO225Y, BIO271H3, ZOO252Y)
Breadth Requirement: Natural Sciences

BIOB339H3 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 embryogenesis through puberty to late adult life. Priority will be given to students in the Human Biology and Paramedical programs. Additional students will be admitted as space permits.
Prerequisite: BIOA01H3 & BIOA02H3
Exclusion: ANA300Y, ANA301H3, (BOYB33JH3)
Breadth Requirement: Natural Sciences

BIOB502H3 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 & BIOA02H3
Exclusion: (BOYB352J)
Breadth Requirement: Natural Sciences

BIOB515H3 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 & BIOA02H3
Exclusion: (BOYB51JH3)
Breadth Requirement: Natural Sciences

BIOB523H3 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 & BIOA02H3
Corequisite: BIOB515H3 Exclusion: (BOYB523JH3)
Breadth Requirement: Natural Sciences

BIOB589H3 Supervised Introductory Research in Biology
A course designed to facilitate 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 from SW420B that is to be completed and signed by the student and supervisor (and which will include an outline of the work to be completed) and then returned to SW420B. Note: This course does not satisfy any Biological Sciences program requirements. Note: This course is a credit/no credit course.
Prerequisite: At least 4.0 credits including BIOA01H3 & BIOA02H3 & enrollment in a Biology program.
Exclusion: BIOB989H3 may not be taken after or concurrently with BIOB991H3, BIOB995H3, BIOB997Y3 or BIOB999Y3.

BIOB399H3 Supervised Introductory Research in Biology
A course designed to facilitate 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 from SW420B that is to be completed and signed by the student and supervisor (and which will include an outline of the work to be completed) and then returned to SW420B.
Note: BIOB991H3 is identical to BIOB999H3 but is intended as a second research experience. In order to be eligible for BIOB991H3, 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 BIOB999H3.
Note: This course does not satisfy any Biological Sciences program requirements.
Prerequisite: BIOB991H3
Exclusion: BIOB999H3 may not be taken after or concurrently with BIOB995H3, BIOB997Y3 or BIOB999Y3.

BIOC123H3 Biochemistry I: Proteins & Enzymes
A lecture course describing factors involved in determining protein structure and the relationships between protein structure and function. Topics will 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: [BIBO101H3 & (BOYB111H3) or (BOYB107Y)] & (CHMB41H3 & CHMB42H3)
Exclusion: BCH210H1, BCH214Y, BCH310H3, (BOYB120H)
Breadth Requirement: Natural Sciences

BIOC130H3 Biochemistry II: Bioenergetics and Metabolism
A lecture course that introduces cellular metabolism, the process by which living organisms extract and utilize energy from their environment. Topics include: bioenergetics; oxidative phosphorylation; aspects of carbohydrate, lipid and amino acid metabolism; regulation of metabolism, and the integration of metabolic pathways.
Prerequisite: [BIIBO101H3 & (BOYB111H3) or (BOYB107Y)] & (CHMB41H3 & CHMB42H3)
Exclusion: BCH210H1, BCH214Y, BCH310H1, (BOYB131H)
Breadth Requirement: Natural Sciences
BIOC14H3 Genetics, Environment and Behaviour
This class will provide an overview of the role of genes in behaviour, either indirectly as structural elements or as direct participants in behavioural regulation. Topics to be covered are methods to investigate complex behaviours, specific examples of genetic effects on behaviour in animals and humans, and studies of gene-environment interactions. Prerequisite: BIOL11H3 or BIOS10Y3 Breadth Requirement: Natural Sciences

BIOC15H3 Genetics
Topics for this lecture and laboratory (or project) course include: a brief review of DNA structure, transcription, and translation; inheritance and its chromosome 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: [BIOL10H3 & BIOL11H3] or BIOS10Y3 & [MATA21H3 or MATA35H3 or MATA36H3 or MATA37H3 or PSYB30H3 or STA322H3] Exclusion: [BIOC15H3, BIOS20H3, HMD26H3] Breadth Requirement: 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: BIOL15H3 Exclusion: [BIOC15H3] Recommended Preparation: BIOC15H3 Breadth Requirement: Natural Sciences

BIOC17H3 Microbiology: The Bacterial Cell
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: [BIOC10H3 & BIOL11H3] or BIOS10Y3 or [BIOL10H3 & BIOL11H3] or [one of BIOS21H3 or BIOS32H3 or BIOL21H3 or BIOS52H3] Exclusion: [BIOC17H3, MGYS77H1, MGYS77H2] Breadth Requirement: 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 cytophysiology, 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: [BIOL10H3 & BIOL11H3] or BIOS10Y3 Exclusion: [BIOC19H3, CRSB20H2] Breadth Requirement: 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: [BIOL10H3 or BIOS10Y3] & BIOS20H3 Exclusion: ANA300Y, BIOC22H1 Breadth Requirement: Natural Sciences

BIOC29H3 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, radioisotopes, enzyme assays, protein purification and approaches to identify protein-protein interactions. Students will be expected to solve numerical problems involving these and related procedures. Prerequisite: BIOS12H3 & BIOC12H3 Corequisite: BIOC13H3 Exclusion: BIOC37H1, BIOC37H1A, BIOC32H3 Breadth Requirement: Natural Sciences

BIOC31H3 Molecular Aspects of Plant Development
A lecture course focused on molecular mechanisms of plant development covering a range of subjects including but not limited to: Embryogenesis, seed development and germination. Plant hormones: hormone perception, signal transduction pathways and mutant analysis. Molecular control of vegetative development: meristem identity, function and regulation. Flowering time: the floral model and homotic mutations. Prerequisite: [BIOC10H3 & BIOL11H3 or BIOS10Y3] & BIOS31H3 Exclusion: CRSB40H, BIOC34H1 Breadth Requirement: Natural Sciences

BIOC33H1 Mammalian Physiology I: Lecture and Laboratory
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. Prerequisite: BIOS30H3 Exclusion: BIOC34H3, BIOC33H2, BIOC34H3, PSL20H1, PSL30H1, PSL50Y1, PSLE60Y2 Enrolment Limit: Priority will be given to students enrolled in the Human Biology and Paramedic programs. Additional students will be admitted only if space permits. Breadth Requirement: Natural Sciences

BIOC34H3 Mammalian Physiology II: Lecture
The lecture component of BIOC34H3 is identical to that described above for BIOC33H1. Students will complete a series of computer-simulated laboratory exercises (on their own time) instead of practical lab sessions. Prerequisite: BIOS30H3 Exclusion: BIOC33H2, BIOC33H3, BIOC34H3, PSL20H1, PSL30H1, PSL50Y1 Breadth Requirement: Natural Sciences
BIOC374H Comparative Plant Form and Function
Plants have evolved organs adapted to maximize growth, survival and reproduction under various environmental conditions. This course will study plant structures in a comparative way with respect to both form and function of growth and sex, focusing mainly on the anatomy of flowering plants.
Prerequisite: BIOC313H
Exclusion: EEB348H
Enrolment Limit: 48
Breadth Requirement: Natural Sciences

BIOC394H Plants and Society
How do plants feed the human population? Students will learn how plants grow and function and how the environment affects plant growth. Human population levels are at 6.5 billion, but it will climb to approximately 10 billion in 2050. This increase in population will tax our planet’s ability to sustain life as we know it. Environmental sustainability and food production will be also this course’s themes.
Prerequisite: BIOC314H
Exclusion: EEB320H, EESB160H
Enrolment Limit: 48
Breadth Requirement: Natural Sciences

BIOC566H 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: BIOC565H & BIOC515H
Exclusion: EEB352H
Breadth Requirement: Natural Sciences

BIOC519H Tropical Biodiversity Field Course
A course with preparatory lectures at UTSC and 1 week at a tropical field station. Ecological and evolutionary aspects of tropical biodiversity will be explored. Students must contact the instructor by September to enroll in this course.
Prerequisite: BIOC502D, BIOC519H, BIOC523H & permission of instructor. Note: Interested students should contact the instructor 4 months before the start of the course, and must be able to place a deposit towards the cost of airfare and accommodation.
Exclusion: (BVCY515H), (BVCY535H)
Enrolment Limit: 15
Breadth Requirement: Natural Sciences

BIOC523H Ecology Field Course
Opportunity to experience hands-on learning through informal natural history walks, group projects, research projects in a small-class setting. The course covers basic principles and selected techniques of field ecology. The study of a variety of taxa in population and community ecology, plant- animal interactions. Mandatory: occasional weekend field trips.
Prerequisite: BIOC595H & BIOC515H
Exclusion: EEB309H, (BVCY535H), (BIOC309H)
Enrolment Limit: 15
Breadth Requirement: Natural Sciences

BIOC546H 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: BIOC503H & BIOC515H
Exclusion: EEB320H, (BVCY545H), (ZOO322H)
Breadth Requirement: Natural Sciences

BIOC585H 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 prevent or adaptive response to this change.
Prerequisite: BIOC502D & BIOC515H
Exclusion: EEB425H, GGR341H, (BVCY585H), (BIOC426H)
Breadth Requirement: Natural Sciences

BIOC595H 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 set 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 set here: dispersal, habitat selection, species interactions, and physical factors.
Prerequisite: BIOC502D & BIOC515H & BIOC523H
Exclusion: EEB319H, (BVCY595H), (BIOC319H)
Breadth Requirement: Natural Sciences

BIOC595H 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 ecosystems. The application of ecological theory to environmental problems is emphasized. Topics include: succession, primary productivity, nutrient supply, predation, competition, trophic dynamics, stability and disturbance, and effects of global change.
Prerequisite: BIOC503H
Exclusion: EEB321H, (BVCY321H), (BVCY545H)
Breadth Requirement: Natural Sciences

BIOC523H Role of Zoos in Conservation
A lecture course that examines the changing role of zoos through time, but emphasizing contemporary topics such as captive breeding and re-introduction of species vs. new technologies to assist reproduction in wild populations; the importance of nutrition and behavioural enrichment in captive animals; zoos and public involvement/education; endangered species in Canada, and habitat restoration.
Prerequisite: BIOC502D & BIOC515H
Exclusion: (BVCY523H)
Enrolment Limit: 50
Breadth Requirement: Natural Sciences
BIOC3693 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. Prerequisite: BIOC3011H, (BIOC4011H, BIOC3691H)
Exclusion: (BIOC3015H)
Breadth Requirement: Natural Sciences

BIOC5593 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: BIOC5501H, CHMA1010H, or CHMA1110H
Exclusion: BIOC5505H
Breadth Requirement: Natural Sciences

BIOC6713 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. Additional information is provided on the Department of Biological Sciences website: http://www.utoronto.ca/~biol/research/Opf.html
Prerequisite: Varies by module (Permission of course co-ordinator required)
Exclusion: BIOC5783H
Breadth Requirement: Natural Sciences

BIOC5993 Biology Team Research
This course is meant to provide an introduction to academic research. A group of 3-5 students work together to develop a research proposal and implement a research project under the general guidance of a faculty researcher. Students meet regularly with a graduate student and attend several skill development sessions. Components of assessment are determined prior to project commencement, but may be based on student contribution over the term and a final written product.
Prerequisite: (1) Enrollment in a U of T major or specialist Subject POS offered by Biological Sciences & (2) [BIOC1011H OR BIOC1111H] & (3) Any 1000-level course in Biological Sciences, with a minimum grade of 65% in any combination of two of the following courses: (a) BIOC1011H, (b) BIOC1111H, (c) BIOC1211H, (d) BIOC1221H, or (e) BIOC1231H, with a minimum grade of 60% in each course.
Exclusion: Any 3000-level course in Biological Sciences with a minimum grade of 65%
Breadth Requirement: Natural Sciences

BIOC1713 Seminars in Cellular Microbiology
An overview of the most significant advances in cellular microbiology. The curriculum will include the study of mechanisms of bacterial pathogenesis, including virulence factors, bacteria attachment and invasion of mammalian cells. The cellular mechanisms involved in the recognition and elimination of pathogenic bacteria will also be studied. Prerequisite: BIOC1011H & BIOC1111H
Exclusion: (BIOC2111H)
Enrollment Limits: 35
Breadth Requirement: Natural Sciences

BIOC1943 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: BIOC1411H, BIOC1513H
Enrollment Limits: 30
Breadth Requirement: Natural Sciences

BIOC2113 Molecular Biology Laboratory I: Host, Vectors and Cloning
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 bioinformatics. Prerequisite: [BIOC1213H & BIOC1223H] or [BIOC1713H or IMCB2013H & IMCB2023H (for Applied Microbiology students only)]
Corequisite: BIOC2113H (Note: Although listed as a corequisite, it is recommended that BIOC1713H be taken in advance of BIOC2113H)
Exclusion: (BIOC2113H)
Enrollment Limits: 48 (Priority will be given to students enrolled in the specialist programs in Cell and Molecular Biology (Co-op and non-Co-op). Additional students will be admitted only if space permits
Breadth Requirement: Natural Sciences

BIOC2223 Molecular Biology Laboratory II: Nucleic Acids & Proteins
A laboratory course offering experience in a range of molecular techniques. The course will be organized around a central theme, namely the expression of heat shock (stress) genes that encode proteins important in cellular repair and protective mechanisms.
Corequisite: BIOC2213H; Exclusion: (BIOC2223H)
Enrollment Limits: 24 (Priority will be given to students enrolled in the specialist programs in Cell and Molecular Biology (Co-op and non-Co-op). Additional students will be admitted only if space permits
Breadth Requirement: Natural Sciences

BIOC3323 Special Topics in Cell Biology
A lecture/seminar/discussion class on contemporary topics in Cell Biology. Students will explore the primary literature and become familiar with experimental design and methodologies used to decipher cell biology phenomena. Students seminars will follow a series of lectures and journal club discussions.
Prerequisite: [BIOC1213H & BIOC1513H]
Exclusion: (BIOC2313H)
Enrollment Limits: 24 (Priority will be given to students enrolled in the specialist programs in Cell and Molecular Biology (Co-op and non-Co-op). Additional students will be admitted only if space permits.
Breadth Requirement: Natural Sciences
BIOD35H3 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, genomics, variation, functional genomics, transcription profiling (microarrays), database mining and extensions to human and animal health and biotechnology. Prerequisite: BIOC13H3
Corequisite: BIOC12H3 Note: Although listed as a corequisite, it is recommended that BIOC13H3 be taken in advance of BIOD25H3.
Exclusion: (BVDYG25H3) Enrolment Limits: 60
Breadth Requirement: Natural Sciences

BIOD28H3 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 defense mechanisms. Topics include virulence factors and the treatment and diagnosis of infection.
Prerequisite: BIOC17H3 Enrolment Limits: 50
Breadth Requirement: Natural Sciences

BIOD27H3 Molecular Endocrinology
A lecture/seminar/discussion class on contemporary topics in endocrinology. The course provides a basic knowledge of endocrine systems encompassing hormone biosynthesis, metabolism, and physiologic actions. Signal transduction from growth factors and their receptors will be emphasized. Specific topics and advances in hormone and growth factor research will be examined.
Prerequisite: BIOL3600H & BIOC12H3
Exclusion: (BVDYG27H3) Recommended Preparation: BIOC33H3 or BIOC34H3
Enrolment Limits: 30
Breadth Requirement: Natural Sciences

BIOD29H3 Pathobiology of Human Disease
This lecture/seminar format course will critically examine selected topics in human disease pathogenesis. Infections and inherited diseases including those caused by human retroviruses, genetic defects and bioterrorism agents will be explored. Discussions of primary literature will encompass pathognomonic characteristics, genetic mutations, disease progression and therapeutic strategies.
Corequisite: BIOC17H3 Enrolment Limits: 30
Breadth Requirement: Natural Sciences

BIOD33H3 Comparative Animal Physiology
This course will focus on the comparative aspects of animal physiology and address how various physiological systems are specialised to meet many of the environmental challenges encountered by terrestrial and aquatic environments. Topics include breathing, cardiovascular physiology, nutrition/feeding, energetics, thermal regulation, information and homeostatic regulation.
Prerequisite: BIOC33H3 or BIOC34H3
Exclusion: (BVDYG33H3) Enrolment Limits: 30
Breadth Requirement: 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 deficits; stress perception and signal transduction; methods to study stress responses; and strategies to improve stress resistance.
Prerequisite: [BIOB103H & BIOB111H3] or [BIOB105Y3] & BIOB31H3
Exclusion: (BVDYG37H3) Enrolment Limits: 35
Breadth Requirement: Natural Sciences

BIOD43H3 Exercise Physiology
A lecture and seminar/discussion course covering integrative human and comparative animal exercise physiology. Topics will include muscle physiology, neurophysiology, metabolism, energetics, thermoregulation and biomechanics. These topics will be considered within evolutionary and ecological contexts. Students will be expected to give a brief oral presentation on recently published primary research involving exercise physiology.
Prerequisite: BIOC33H3 or BIOC43H3
Exclusion: (BMB472H1) Enrolment Limits: 35
Breadth Requirement: Natural Sciences

BIOD45H3 Animal Communication
Theoretical and biological aspects of communication in non-human animals; communication behaviour; decision-making and signal design; evolution of communication.
Prerequisite: BIOL3600H3 & BIOL3602H3 & BIOL35H3 & BIOC34H3
Exclusion: (BVDYG45H3) Enrolment Limits: 30
Breadth Requirement: Natural Sciences

BIOD52H3 Special Topics in Biodiversity and Systematics
A seminar exploration of current topics in biodiversity and systematics, including the molecular genetic, organismal, and community levels. Topics may include DNA barcoding, homology and developmental genetics, adaptive radiation, and morphological vs molecular systematics. The course is intended to develop ability in critical thinking and interpretation of the primary literature. Coursework will involve class presentations, discussions, and written analyses.
Prerequisite: BIOC50H3
Exclusion: (BVDYG52H3) Enrolment Limits: 30
Breadth Requirement: Natural Sciences

BIOD53H3 Special Topics in Behavioural Ecology
An exploration into current topics in the field of behavioural ecology, 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 behavioural ecological theory.
Prerequisite: BIOC54H3
Exclusion: (BBYB449Y) (BVDYG53H3), (BBYB408)=
Enrolment Limits: 30
Breadth Requirement: Natural Sciences
BIOC6063 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/insular community, neutral and lattice 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: BIOC5063 & STA223H1 & [BIOC599H3 or BIOC631H3] Exclusion: (BZGYD6063)

BIOC6293 Species and Speciation

Importance of species as the basic unit of evolution and different species concepts. Origin of species: processes of speciation (allopatric, sympatric; chromosomal speciation; speciation through sexual selection; pre-zygotic (habitat/temporal/pollination/behavioural isolation) vs post-zygotic speciation (extrinsic and intrinsic post-zygotic isolation); adaptive radiation; different rates of speciation. Flipside of speciation: extinction.

Prerequisite: BIOC5063

Exclusion: EEB346H1 Enrolment Limits: 30

Breadth Requirement: Natural Sciences

BIOC6563 Pathologies of the Nervous System

An intensive examination of selected pathologies affecting the nervous system such as Alzheimer and Parkinson disease, multiple sclerosis, stroke, and affective disorders. These pathologies will be examined from an integrative perspective encompassing the pathologies, resulting symptoms, and current therapeutic approaches.

This course requires critical examination of research articles.

Prerequisite: [BIOC611H3 or BIOC612Y3] & [one of NROG404H3 or NROG405H3 or NROG408H3]

Exclusion: (BZGYD6563), (NROG405H3)

Enrolment Limits: 30

Breadth Requirement: Natural Sciences

BIOC6693 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 biodiversity. Of key interest will be how invasions, climate change, and habitat destruction affect diversity and function.

Prerequisite: BIOC515H3 & [BIOC599H3 or BIOC615H3]

Enrolment Limits: 30

Breadth Requirement: Natural Sciences

BIOC695H3 Supervised Study in Biology

This course is designed to permit intensive examination of the primary literature of a selected 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 from SW420B that is to be completed and signed by the intended supervisor, then returned to SW420B. At that time, the student will be provided with an outline of the schedule and general requirements for the course. 5 sessions of group instruction will form part of the coursework.

Prerequisite: Satisfactory completion of 12.5 full credits, of which at least four must be Biology B- or C-level courses. Students must have permission of the instructor. In order to be eligible for BZGYD695H3, with the same instructor as for BIOC695H3 or BIOG699Y, the student and instructor must provide a plan that goes beyond the work of BZGYD695H3.

Exclusion: (BZGYD603H3), (BZGYD659H3)

BIOC696Y3 Directed Research in Parasitology

This course is designed to permit intensive examination of clinical databases or published literature/reports related to emergency medicine or parasitology. Students will analyze data from these sources to address a fundamental question or concern related to patient treatment and/or outcomes from the point-of-view of "best practice" procedures in emergency medicine or parasitology. A quantitative or statistical analysis of the problem is expected. In addition to examining the question or concern from a clinical treatment perspective, students are expected to gain an appropriate level of understanding of the physiology, anatomy, pharmacology and epidemiology underlying the question that they are addressing. The project will culminate in a written report and possibly an oral presentation. Students will work under the supervision of an emergency medicine or parasitology/practice professional/ researcher who will guide the research. Students must also report to a UTSC faculty member who will serve as a co-supervisor. In order to enrol in this course, students must seek an individual who will supervise the research and then obtain permission from the UTSC Parasitology Program Supervisor.

Prerequisite: Minimum of 12.5 credits including PMDC545Y3 & PMDC565H3 & [PSYB07H3 or STA223H1 & PSYC616H3 or permission of instructor.

BIOC697Y3 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 SW420B that is to be completed and signed by the intended supervisor, and returned SW420B. 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.

Prerequisite: Satisfactory completion of 13.5 full credits, of which at least four must be Biology B- or C-level courses and permission of the instructor.

Exclusion: CSB496Y3, EEB496Y3, (BZGYD691Y3), (BZGYD993Y), (BOT456Y3), (ZOO499Y)

BIOC699Y3 Directed Research in Biology

Identical to BIOC697Y3 but intended as a second research experience. In order to be eligible for BIOC699Y3, with the same instructor, the student and the instructor will have to provide a plan of study that goes beyond the work of BIOC697Y3.

Prerequisite: Satisfactory completion of 13.5 full credits, of which at least four must be Biology B- or C-level courses and permission of the instructor.

Exclusion: CSB496Y3, EEB496Y3, (BZGYD692Y3), (BZGYD993Y), (BOT456Y3), (ZOO499Y)
Chemistry

Faculty List
R.A. McClelland, B.Sc., Ph.D. (Toronto), Professor Emeritus
J.C. Thompson, B.A., Ph.D. (Cambridge), Professor Emeritus
T.T. Takwell, B.S. (Georgia Inst. Tech.), Ph.D. (Harvard), Professor Emeritus
A. Walker, B.Sc., Ph.D. (Nottingham), Professor Emeritus
D.E. Comarr, B.A., M.A.Sc. (Toronto), Ph.D. (California Inst. of Tech), Professor
D.J. Donaldson, B.Sc. (Carleton), Ph.D. (Carleton), Professor
F. Wurtz, Dipl.GeoSc. (Bayeruth), Ph.D. (Toronto), Professor
S. Fraser, B.A. (Oxford), Ph.D. (Cambridge), Associate Professor
A. Simpson, B.Sc., Ph.D. (Birmingham), Associate Professor
K. Kerman, B.Sc., M.Sc. (Agricst), Ph.D. (Japan Advanced Institute of Science and Technology), Assistant Professor
X. Zhang, B.Sc., M.Sc. (Shanghai), Ph.D. (Basel), Assistant Professor
W. Rezvano, B.Sc. (Toronto), Senior Lecturer
S. Dallii, M.Sc., Ph.D. (Toronto), Lecturer
L. Mikhaylichenko, M.Sc., Ph.D. (Krasnodar, Russia), Lecturer
E.L.O. Sauer, B.Sc. (Toronto), Ph.D. (Ottawa), Lecturer
R. Soong, B.Sc. (Toronto), Ph.D. (Toronto), Senior Research Associate

Co-ordinator of First Year Studies in Chemistry: E. Sauer (416-287-7209) Email: esauer@utsc.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. A sound knowledge of the fundamental concepts of chemistry is useful to any student in the Physical and Environmental or Life Sciences.

The basic courses in chemistry are CHMA101H3 and CHMA111H3 which must be taken by those who wish to take further chemistry courses or who require chemistry for another science. Completion of CHMA101H3 and CHMA111H3 permits students to take any of the B-level courses in Chemistry. These are divided according to the following sub-disciplines: Inorganic Chemistry, Analytical Chemistry, Physical Chemistry, Environmental Chemistry and Organic Chemistry. Hereafter, 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 450, complete the following U of T Scarborough courses:
CHMA101H3
CHMA111H3
CHMB100H3
CHMB101H3 &
CHMC31Y3

To enter St. George Series 440 (except 447), complete the following U of T Scarborough courses:
CHMA101H3
CHMA111H3
CHMB411H3
CHMB421H3
CHMC411H3 &
CHMC421H3/CHMC471H3

Note: Timetabling constraints usually preclude U of T Scarborough C-level and St. George 400-level courses being taken in the same year.

Guidelines for course selection

While courses in Physics do not appear among the prerequisites or co-requisites of most courses in Chemistry, students are urged to take [PHYA101H3 or PHYA111H3] & [PHYA211H3 or PHYA221H3] early in their Programs. Thus, the suggested first-year Program in Chemistry includes CHMA101H3, CHMA111H3, MATA30H3, [MATA36H3 or MATA37H3], [PHYA101H3 or PHYA111H3] & [PHYA211H3 or PHYA221H3]. Students interested in Biological Chemistry or Biochemistry should also include BIOA401H3 & BIOA402H3.

Completion of one of the Specialist or Major Programs listed below can lead to a number of career opportunities in industry, research, teaching, and government. Students who are interested in these Programs are urged to consult with the supervisors early in their academic careers.
The Specialist Programs in Chemistry, Biological Chemistry and the Major Programs in Biochemistry and Chemistry are eligible for inclusion in the Co-operative Program in Physical Sciences and in the Concurrent Teacher Education Program (CTEP). Please refer to the Physical Sciences section, the Co-operative Programs section and the Concurrent Teacher Education section of this Calendar for further information.

Science Engagement Courses
For science experiential learning through community outreach, classroom in-reach and team research, please see the Science Engagement section of this Calendar.

SPECIALIST PROGRAM IN BIOLOGICAL CHEMISTRY (BSCIENCE)
Supervisor: W. Restivo (416-287-7222) Email: restivo@sciences.uottawa.ca
This program is intended for students who want to specialize in Chemistry, but who are also interested in the chemistry of living systems.

Program Requirements
The program requires the completion of the following 15.0 full credits.

First Year:
BIOA0013 Life On Earth: Unifying Principles
BIOA0213 Life on Earth: Form, Function and Interactions
CHMA1013 Introductory Chemistry I: Structure and Bonding
CHMA1113 Introductory Chemistry II: Reactions and Mechanisms
MATA33H3 Calculus I for Biological and Physical Sciences
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences]
PHYA1013 Introduction to Physics I
[PHYA21H3 Introduction to Physics IIA or PHYA22H3 Introduction to Physics IIIB]

Note: MATH1403 is a prerequisite for CHMB2103 and MATH2003 or MATH20H3 is a prerequisite for MATH31H3.
MATH2503/MATH2703 is strongly recommended over MATH2703 in order that future course selection is not compromised.

Second Year:
BIOB1013 Cell Biology
BIOB1113 Molecular Aspects of Cellul and Genetic Processes
BIOB1213 Laboratory for Cell and Molecular Biology
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Second or Third Year:
CHMB1603 Techniques in Analytical Chemistry
CHMB2003 Chemical Thermodynamics and Elementary Kinetics
CHMB21H3 Chemical Structure and Spectroscopy

Third Year:
BIOC1213 Biochemistry I: Proteins and Enzymes
BIOC1313 Biochemistry II: Bioenergetics and Metabolism
BIOC2313 Practical Approaches to Biochemistry
CHMC4713 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:
PSCD0013 Current Questions in Mathematics and Science
At least 0.5 credits from the following:
BODT5103 Supervised Study in Biology
BODT99Y3 Directed Research in Biology
HMDB99Y3 Directed Research
HMDD9113 Directed Research
HMDD9213 Advanced Organic Chemistry Lab Course
PSCD101H3 Physical Sciences Project

And, in appropriate years 1.0 full credit (1.5 if BIOD95H3, CHMD91H3, CHMD92H3 or PSCD101H3 is taken) from the following list:

- MATH411H3 Techniques of Calculus of Several Variables I
- CHMB410H3 Environmental Chemistry
- PSCB370H3 Introduction to Scientific Computing

Or any other C- and D-level Chemistry or PSC courses and C- or D-level BSC courses for which [BIOB10H3 & BIOB11H3] is a prerequisite.

SPECIALIST PROGRAM IN CHEMISTRY (SCIENCE)

Supervisor: S. Dhillon (416-287-7215) Email: sdhill@mstc.utoronto.ca

This Program is meant for students who are interested in obtaining a strong background in all aspects of modern chemistry.

Program Requirements

The Program requires completion of 14.0 full credits as follows:

First Year:

- CHMA101H3 Introductory Chemistry I: Structure and Bonding
- CHMA111H3 Introductory Chemistry II: Reactions and Mechanisms
- MATA307H3 Calculus I for Biological and Physical Sciences
- MATA308H3 Calculus II for Physical Sciences or MATA379H3 Calculus II for Mathematical Sciences
- PHYA102H3 Introduction to Physics I A
- [PHYA211H3 Introduction to Physics IIA or PHYA221H3 Introduction to Physics IIB] and 1.0 full credit chosen from:
  - ASTA201H3 Introduction to Astronomy and Astrophysics I: The Sun and Planets
  - ASTA202H3 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
  - BIOA303H3 Life on Earth: Unifying Principles
  - BIOA304H3 Life on Earth: Form, Function and Interactions
  - EESA305H3 Environmental Hazards
  - EESA306H3 Introduction to Planet Earth
  - MATA232H3 Linear Algebra I
  - PSCB370H3 Introduction to Scientific Computing
  - STAB221H3 Statistics I

Second Year:

- CHMB101H3 Techniques in Analytical Chemistry
- CHMB201H3 Chemical Thermodynamics and Elementary Kinetics
- CHMB211H3 Chemical Structure and Spectroscopy
- CHMB311H3 Introduction to Inorganic Chemistry
- CHMB410H3 Organic Chemistry I
- CHMB420H3 Organic Chemistry II
- MATH411H3 Techniques of Calculus of Several Variables I

Third Year:

- CHMC118H3 Principles of Analytical Instrumentation
- CHMC120H3 Analytical Instrumentation
- [CHMC201H3 Intermediate Physical Chemistry or CHMC211H3 Topics in Biophysical Chemistry]
- CHMC311H3 Intermediate Inorganic Chemistry
- [CHMC410H3 Organic Reactions Mechanisms or CHMC420H3 Organic Synthesis]

Fourth Year:

- PSCD202H3 Current Questions in Mathematics and Science and 2.0 full credits chosen from:
  - [CHMC410H3 Organic Reactions Mechanisms or CHMC420H3 Organic Synthesis]
  - CHMC429H3 Bio-Orgainc Chemistry
  - Any A-level or 400-level CMB course

Other D-level courses upon approval of Program Supervisor and 1.0 full credit chosen from:

- CHMD90Y1 Directed Research
- CHMD91H3 Directed Research or CHMD92H3 Advanced Organic Chemistry Lab Course
- PSCD102H3 Physical Sciences Project
MAJOR PROGRAM IN CHEMISTRY (SCIENCE)

Supervisor: S. Mihaylova Email: mihaylova@utoronto.ca

This Program offers the possibility of obtaining an introduction to all of the sub-disciplines of Chemistry.

Program Requirements:

Students should complete the following 7.5 full credits:

First Year:
- CHMA10H3 Introductory Chemistry I: Structure and Bonding
- CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
- MATA36H3 Calculus I for Biological and Physical Sciences
  [MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Mathematical Sciences]
- [PHYA10H3 Introduction to Physics I or PHYA11H3 Introduction to Physics IB]
- [PHYA21H3 Introduction to Physics II or PHYA22H3 Introduction to Physics IIIB]

Note: PHYA10H3 is not an acceptable substitute for [PHYA10H3/PHYA11H3 & PHYA21H3/PHYA22H3]

Second and Later Years:

4.5 credits in Chemistry, of which 2.0 must be at the C- or D-level. One of these C- or D-level half credits must include a laboratory component.

** Students should note that if they are going to select CHMB20H3/CHMB21H3, then MATA30H3, MATA35H3/MATA36H3, PHYA10H3 & PHYA21H3 are prerequisites. If CHMC21H3 is chosen, CHMB20H3, CHMB21H3 and MATA35H3 are prerequisites.

MAJOR PROGRAM IN BIOCHEMISTRY (SCIENCE)

Supervisor: L. Tao (416-287-7220) Email: tao@artsci.utoronto.ca

This Program places a greater emphasis on the biological aspects of chemistry than does the general Chemistry Major Program. It is offered for students who are primarily interested in chemistry but also want to study the chemistry of living systems.

Program Requirements:

Students should complete the following 8.0 full credits:

First Year:
- BIPA10H3 Life on Earth: Unifying Principles
- BIPA20H3 Life on Earth: Form, Function and Interactions
- CHMA10H3 Introductory Chemistry I: Structure and Bonding
- CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

Second and Later Years:
- BIOR10H3 Cell Biology
- BIOR10H3 Molecular Aspects of Cellular and Genetic Processes
- BIOR12H3 Cell & Molecular Biology Laboratory
- BIOC12H3 Biochemistry I: Proteins & Enzymes
- BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
- BIOC21H3 Practical Approaches to Biochemistry
- CHMB10H3 Techniques in Analytical Chemistry
- CHMB11H3 Organic Chemistry I
- CHMB20H3 Organic Chemistry II
  [CHMC41H3 Organic Reaction Mechanisms or CHMC42H3 Organic Synthesis]
- CHMB-71H3 Bio-Orgnic Chemistry

And 0.5 credit from the following:
- CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
- CHMB21H3 Chemical Structure and Spectroscopy
- CHMB31H3 Introduction to Inorganic Chemistry
- CHMB55H3 Environmental Chemistry
- CHMC11H3 Principles of Analytical Instrumentation
- CHMC16H3 Analytical Instrumentation
- CHMC21H3 Topics in Biophysical Chemistry
- CHMC31H3 Intermediate Inorganic Chemistry
  [CHMC41H3 Organic Reaction Mechanisms or CHMC42H3 Organic Synthesis]

SPECIALIST PROGRAM IN ENVIRONMENTAL CHEMISTRY (SCIENCE)
See the Environmental Science section of this Calendar for program requirements.

SPECIALIST PROGRAM IN NATURAL SCIENCES (SCIENCE)
See the Physical Sciences section of this Calendar for program requirements.

CHMA10H3 Introductory Chemistry I: Structure and Bonding
This course will introduce the study of chemical transformations of matter, from a macroscopic and microscopic perspective. It starts with a quantitative description of gases, solids and solutions and develops ideas of bonding and structure in chemical compounds with a particular emphasis on organic and biological molecules. This course includes a three hour laboratory every other week which alternates with a one hour mandatory tutorial. Prerequisite: Grade 12 Chemistry & [Grade 12 Advanced Functions or Calculus]
Corequisite: None, but [(MAT2A0H3) & (MAT2A1H3) or (MAT3A0H3) & (MAT3A5H3) or (MAT3A0H3) & (MAT3A7H3)] are strongly recommended. Note: MAT3A0H3 & (MAT3A5H3 or MAT3A7H3) are required for some higher level and other Physical and Environmental Sciences courses.
Exclusion: CHM138H, CHM139H, CHM140Y, CHM151Y
Breadth Requirement: Natural Sciences

CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
In this course, reactions and equilibria in chemical systems are explored through their thermodynamic properties and chemical kinetics. Acid/base and redox equilibria will be covered and some reactions of organic molecules will be introduced. This course includes a three hour laboratory every other week which alternates with a one hour mandatory tutorial. Prerequisite: CHMA10H3
Corequisite: None, but [(MAT2A0H3) & (MAT2A1H3) or (MAT3A0H3) & (MAT3A5H3) or (MAT3A0H3) & (MAT3A7H3)] are strongly recommended. Note: MAT3A0H3 & (MAT3A5H3 or MAT3A7H3) are required for some higher level and other Physical and Environmental Sciences courses.
Exclusion: CHM138H, CHM139H, CHM140Y, CHM151Y
Breadth Requirement: 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 TST. Prerequisite: [CHMA10H3 & CHMA11H3] & [MAT3A0H3 & MAT3A5H3 & MAT3A7H3] & PHYA40H3. Note that PHYA21H3 and MATB41H3 are prerequisites for the C-level physical chemistry courses.
Exclusion: CHM223H, CHM225Y
Breadth Requirement: Natural Sciences

CHMB21H3 Chemical Structure and Spectroscopy
Atomic structure and spectra; terms symbols and their meaning; valence bond theory; LCAO-MO; molecular spectroscopies. Prerequisite: CHMB20H3. Note that this implies all the prerequisites for that course as well.
Exclusion: CHM223H, CHM225Y
Breadth Requirement: Natural Sciences

CHMB31H3 Introduction to Inorganic Chemistry
Fundamentals of coordination, solid state and descriptive Inorganic Chemistry. Structures, bonding and reactivity of transition metal coordination compounds; solid state structures and energetics; selected chemistry of non-transition elements. Examples will be taken from environmentally and biologically important inorganic compounds. Prerequisite: CHMA10H3 & CHMA11H3
Breadth Requirement: Natural Sciences

CHMB41H3 Organic Chemistry I
Chemical bonding and an introduction to aliphatic and aromatic compounds. Conformational analysis and stereochemistry. Free radical reactions of alkenes. Chemistry of alkenes, dienes and alkynes. Substitution and elimination reactions. This course includes a four hour laboratory every other week. Prerequisite: CHMA10H3
Exclusion: CHM130H, CHM131Y, CHM247H, CHM249H
Breadth Requirement: Natural Sciences

CHMB42H3 Organic Chemistry II
Spectroscopy of organic compounds. Aromatic substitution. Chemistry of carboxyl compounds. An introduction to the chemistry of biologically important compounds, including heterocycles, carbohydrates, amino acids, and nucleic acids. This course includes a four hour laboratory every other week. Prerequisite: CHMA11H3 & CHMB41H3
Exclusion: CHM151Y, CHM247H, CHM249H
Breadth Requirement: Natural Sciences
CHM853H3 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, aquatic chemistry, some agricultural and industrial chemistry, and chemical analysis of contaminants and pollutants.
Prerequisite: CHMA1H3 & CHMA11H3
Exclusion: CHM310H
Breadth Requirement: Natural Sciences

CHMC111H3 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: CHM317H
Recommended Preparation: CHMB20H3 & CHMB21H3
Breadth Requirement: Natural Sciences

CHMC169H3 Analytical Instrumentation
A laboratory course to complement CHMC111H3, 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: CHMC111H3
Exclusion: CHM317H
Breadth Requirement: Natural Sciences

CHMC209H3 Intermediate Physical Chemistry
Basic statistical mechanics and applications to thermodynamics; kinetic; intermolecular interactions; concepts in reaction dynamics.
Prerequisite: CHMB20H3 & CHMB21H3 & MATB41H3 & PHYA21H3
Breadth Requirement: Natural Sciences

CHMC211H3 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 (biocatalytic) reactions.
Prerequisite: CHMC209H3 & CHMC211H3 & MATB41H3
Breadth Requirement: Natural Sciences

CHMC311Y3 Intermediate Inorganic Chemistry
A more detailed discussion (then in CHMC811Y3) of the structure, bonding, spectroscopy and reactivity of main group, transition metal and organo-metallic compounds. Special topics may include inorganic solids and materials; biologically and environmentally important inorganic compounds, and catalysis. The laboratory will introduce a variety of synthetic techniques, with characterization of products by both classical and instrumental methods. This laboratory is six hours in duration and occurs every week.
Prerequisite: CHMB16H3 & CHMB21H3 & CHMB41H3 & CHMB42H3
Breadth Requirement: Natural Sciences

CHMC411H3 Organic Reaction Mechanisms
Theory and mechanisms of organic reaction principles of structure, introduction to spectroscopy, polymers. Theory of bonding. The laboratory experiments are designed to complement the topics covered in lectures. Offered in odd numbered years, alternating years with CHMC421H3. This course includes a four hour laboratory every week.
Prerequisite: CHMB41H3 & CHMB42H3
Exclusion: CHM340H
Breadth Requirement: Natural Sciences

CHMC421H3 Organic Synthesis
Principles of synthesis, organic functional group transformations, compound stereochemistry, spectroscopy and structure elucidation. Offered in even numbered years alternating with CHMC411H3. This course includes a four hour laboratory every week.
Prerequisite: CHMB41H3 & CHMB42H3
Exclusion: CHM340H
Breadth Requirement: Natural Sciences

CHMC471H3 Bio-Organic Chemistry
The chemistry of nucleic acids, amino acids, peptides, steroids and other natural products; amino acids, proteins and carbohydrates; introduction to enzyme structure and catalysis. This course includes a 4 hour laboratory every week.
Prerequisite: CHMB41H3 & CHMB42H3
Exclusion: CHM347H
Breadth Requirement: Natural Sciences

CHMD391H3 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.

CHMD591H3 Topics in Environmental Chemistry
Advanced topics in environmental 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.
CHIMD9HR3 Bioinorganic Chemistry
This course will explore the inorganic chemistry behind the requirement of biological cells for metals. The course will begin with the principles of coordination chemistry and a survey of the abilities of various functional groups within proteins and nucleic acids to form coordination complexes with metal ions. Their reactivity will be discussed in the context of the reaction mechanisms of specific metalloenzymes. Modernly-relevant topics such as mechanisms by which organisms obtain required metal ions from their environment, the toxicity of metals in and use of platinum containing compounds in treating cancer will also be covered.
Prerequisite: BIOC12H3 & BIOC13H3 & CHMC31Y3
Exclusion: CHMH333H, CHMH437H
Breadth Requirement: Natural Sciences

CHIMD91H3 Pharmaceutical Chemistry
The course focuses on the important concepts in the design and synthesis of drugs. The course will begin with the principles of pharmacology, drug metabolism and toxicology. Drug design and structure-activity relationships including the synthetic and pharmacological concepts will be discussed. Case studies of drugs will be studied in detail.
Prerequisite: CHMC41H3 & CHMC42H3 & CHMC47H3
Exclusion: CHMH440H
Breadth Requirement: Natural Sciences

CHIMD92H3 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.
Enrollment Limit: 15
Breadth Requirement: Natural Sciences

CHIMD93H3 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: CHM31H3 or CHMC41H3
Breadth Requirement: Natural Sciences
Enrollment Limit: 15

City Studies
Faculty List
J. Hamigan, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Professor
J. Miron, B.A. (Queen's), M.A. (Penn.), M.Sc. (Eth.), Ph.D. (Toronto), Professor
M.L. Kohn, B.A. (Wilfrid Laurier), M.A., Ph.D. (Cornell University), Associate Professor
A. Sorensen, B.F.A. (Nova Scotia College of Art and Design), M.Sc., Ph.D. (London), Associate Professor
S.C. Bacc, B.A. (Osgoode), M.E.S. Ph. (York), Ph.D. (York), Assistant Professor
D. Silver, B.A. (Berkley), M.A., Ph.D. (Chicago), Assistant Professor
A. Alikhal, B.A., M.A. (Free University, Berlin), Ph.D. (ABD), Lecturer

CHIMD90Y3 Directed Research
Participation in a research project under the direction of a faculty member. This project may involve original research, or may involve a thorough literature review and report on a topic of current interest. Approximately 260 hours of work are expected in CHIMD90Y3 and 130 hours in CHIMD91H3. The topic will be selected in conference with a member of the chemistry staff. Progress will be monitored during periodic consultations with the staff member. Please see the note below on registration for both courses.

Note for students planning to register in CHIMD90Y3 or CHIMD91H3
Students should apply to the Program Supervisor of Studies by June 20th to be admitted into the course. The Program Supervisor of Studies (or designate) is the only one permitted to give "permission of instructor". Application will consist of:
- The name of the proposed supervisor, with his/her signature indicating approval
- A brief description of the planned research
- A list of relevant courses already passed and to be taken during the current session.

Generally, only students who have completed 15 full credits in total, including at least 1.0 full credit of C-level
CHEM courses containing a lab component (i.e. CHMC44H3, CHMC41Y3, CHMC41H3, CHMC42H3, BIOC23H3) will be accepted into the course. Research supervisors should normally be members of the CHEM group at U of T Scarborough. Potential supervisors outside these groups must identify a co-supervisor who is a member of the CHEM group at U of T Scarborough. Students doing research at the St. George campus will be graded with the cohort of 4th year research students in the Chemistry department; those pursuing their research at U of T Scarborough will be graded with the U of T Scarborough cohort.
Prerequisite: Permission of the instructor.
Exclusion: Students may take either CHIMD90Y3 or CHIMD91H3 but not both.

CHIMD92H3 Advanced Organic 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 practical skills by working with important reactions taken from pharmaceutical chemistry and the chemistry of naturally occurring substances.
Prerequisite: One of CHMC41H3, CHMC42H3 or CHMC41Y3
Exclusion: CHIMD90Y3, CHIMD91H3
Enrollment Limit: 10
Breadth Requirement: Natural Sciences
Undergraduate Counsellor: J. Ragnarsmo Email: social-sciences-counsellor@uottawa.ca

A pre-professional Major Program for students interested in career paths that may be city-related: e.g., architecture, city planning, real estate brokerage, real estate development, housing, law, property real estate appraisal, property management, social work, social and city public policy, city environmental management, and city transportation policy. The Program equips students with the background knowledge and skills needed to think broadly about the relationships between their intended professions and the growth, sustainability, and livability of cities. The Major Program in City Studies is multidisciplinary: it is designed to give students the opportunity to see how they might apply ideas about cities from the social sciences and kindred disciplines in their future professional interest.

Guidelines for 1st year course selection
Students intending to complete a program in City Studies should take at least 1.0 full credit from the courses listed in Requirement 1 of the Major Program in City Studies within their first 4.0 credits.

Note: It is Department policy that students without the prerequisite will be removed from the course. Students should carefully check the prerequisites required for particular B- and C-level courses.

Note: That some upper-level courses (e.g., SOC and ECM) are part of limited enrolment programs, with first preference in these courses going to students enrolled in those programs.

MAJOR PROGRAM IN CITY STUDIES (ARTS)

Program Requirements
This program requires a total of 7.0 full credits.

1. Introduction to Social Science Thought (1.0 full credit from among the following):
   - ANT3010H3: Introduction to Anthropology: Becoming Human
   - ANT3020H3: Introduction to Anthropology: Culture, Society and Language
   - HIL3010H3: Plagues and Peoples
   - POLA1013: Critical Issues of Canadian Democracy or POLA5013: Canada's Political Institutions
   - One other A-level half-course in Political Science
   - SOCA1013: Introduction to Sociology I
   - SOCA2013: Introduction to Sociology II
   - GGRA2013: The Geography of Global Processes
   - GGRA3013: Cities and Environments
   - ECONA5013: Introduction to Microeconomics or ECONA5013: Introduction to Microeconomics: A Mathematical Approach
   - ECMAD5013: Introduction to Microeconomics or ECMAD5013: Introduction to Microeconomics: A Mathematical Approach

2. Core courses (1.0 full credit)
   - CITIB1013: Canadian Cities and Planning
   - CITIB2013: Foundations of City Studies

3. City Studies Fundamentals of (at least 2.0 full credits from among the following):
   - DTS3001H3: Introduction to Diaspora and Transnational Studies I
   - DTS3002H3: Introduction to Diaspora and Transnational Studies II
   - [EESA0513: Environmental Hazards or EESA0613: Introduction to Planet Earth]
   - GGRA0513: Urban Geography
   - GGRA1313: Social Geography
   - GGRA2013: Geographies of Disease
   - HLT1011H3: Health and the Urban Environment
   - SOC4013: Sociology of Cities and Urban Life
   - SOC4031H3: Urban Sociology: Micro-Analysis
   - WST1121H3: Women: Issues of Violence and Safety

4. Methods (at least 1 full credit from among the following):
   - [SOC9601H3: Social Statistics or STAN2211H3 Statistics I]
   - [GGRA3603: GIS and Empirical Reasoning or EESA0113: GIS for the Beginning Student or EESC3513: Geographic Information Systems and Remote Sensing]
   - SOC2313: Practicum in Qualitative Research Methods
   - SOC2403: Practicum in Quantitative Research Methods

5. Applications (at least 2.0 full credits from among the following):
   - (ANTC9131H3: Foundation and Theoretical Issues in Anthropological Demography
   - ANTC9501H3: Methods and Analysis in Anthropological Demography
   - CITC0113: Urban Communities and Neighbourhoods Case Study: East Scarborough
   - CITC0213: Learning In Community Service
   - CITC0513: Real Estate and the City
   - CITC0813: Municipal and Planning Law in Ontario
MAJOR (CO-OPERATIVE) PROGRAM IN CITY STUDIES (ARTS)

Graduates will receive an Honours B.A. degree wherein they must combine the Major (Co-operative) Program in City Studies with one of the following:

- Major Program in Anthropology
- Major Program in Economics for Management
- Major Program in Environmental Science
- Major Program in History
- Major Program in Human Geography
- Major Program in Political Science
- Major Program in Sociology
- Major Program in Studio
- Major Program in Women's and Gender Studies

The Program is intended to complement the chosen academic discipline and to give students the opportunity to see how they might apply ideas from that discipline in their field of professional interest.

For information on admissions, fees, work terms and standing in the Program, please see the Co-operative Programs section of this Calendar.

Program Admission
Prospective Applicants: For direct admission from secondary school or for students, who wish to transfer to UTSC from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this Calendar.

Current U of T/Scarborough students: Application procedures can be found at the Registrar's Office website: www.utsc.utoronto.ca/admissions. The minimum qualifications for entry are 4.0 credits including 1.0 from the courses listed in Requirement 1 of the Major Program in City Studies plus a cumulative GPA of at least 2.5.

Program Requirements
The Major (Co-operative) Program in City Studies combines academic studies in various disciplines with work terms in private enterprise, the public sector, or non-governmental organizations. It includes all of the requirements of the Major Program listed above, viz., 7 full credits as specified. In addition, students must successfully complete the non-credit Arts & Science Co-op Work Term Preparation course and two work terms.

Work Terms
Students must satisfactorily complete two work terms, each of four-month duration. To be eligible for the first work term, students must have completed at least 10 full credits, including 5 full credits as a U of T Scarborough student. These must include at least one
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.
Exclusion: (GGRB06H3)
Recommended Preparation: Completion of Requirement 1 of the Major Program in City Studies
Breadth Requirement: Social & Behavioural Sciences

CITB02H3 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.
Prerequisite: At least 4.0 credits, of which at least 2.0 must be in ANT, ECM, GGR, POL or SOC
Breadth Requirement: 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: CITB01H3 & CITB02H3 & permission of instructor
Exclusion: GGRCH1H3 if taken in the 2008 Fall Session
Enrolment Limits: 50
Breadth Requirement: Social & Behavioural Sciences

CITC02H3 Learning in Community Service
This will be a service learning course based in Scarborough communities in which students learn about community issues first-hand by volunteering for community based organizations. Student evaluation will be based on completion of volunteer hours and grading of student journals that will: 1. Describe the service work, and 2. Reflect on the service work and relate it to lectures and required readings.
Prerequisite: CITB01H3 & CITB02H3 & permission of instructor
Recommended Preparation: CITC01H3
Enrolment Limits: 30

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; deprivation and maintenance; cyclical behaviour in metropolitan property markets; impacts of local government; property taxation.
Prerequisite: CITB01H3 & CITB02H3 & (EBCM80H3 or ECM802H3)
Exclusion: (GGRB10H3)
Breadth Requirement: Social & Behavioural Sciences

CITC04H3 Municipal and Planning Law in Ontario
Constitutional authority, municipal corporations, official plans, zoning by-laws, land subdivision and covenants, development control, deed restrictions and common interest developments, Ontario Municipal Board.
Prerequisite: CITB01H3, CITB02H3
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

CITC08H3 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: CITB01H3, CITB02H3
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

CITC10H3 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 well-being 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: CITB01H3, CITB02H3
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

CITC11H3 Selected Issues in City Studies
Examination of one or more current issues in cities. The specific issues with vary depending on the instructor.
Prerequisite: CITB01H3 & CITB02H3
Breadth Requirement: Social & Behavioural Sciences

CITC14H3 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: University-level half-credit in data analysis & GGRB02H1 & one of CITB01H3, ECRM80H1, ECRM802H, GGR051H3, (GGR800H3), (GGR827H3), GGR827H3
Exclusion: GGR324H1, (GGR418H3)
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences
CITD0043 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 guest 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: Completion of the Major Program in City Studies requirements (1) Introduction to Social Science Thought, (3) Fundamentals of City Studies & (4) Methods.

Enrollment Limits: 25 per section

Classical Studies

Faculty List
J. Warren, M.A. (Canisius), Professor Emeritus
J. Irwin, B.A., M.A., Ph.D. (Toronto), Associate Professor Emeritus
K. Blouin, B.A., M.A., Ph.D. (Laval and Nice), Assistant Professor

Program Director: K. Blouin Email: Abinblou@uottawa.ca

Classical studies is a multidisciplinary 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 classical world was in essence Greek and Roman. 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 offer 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 most courses the ancient written sources are studied in translation.

Guidelines for 1st year course selection
Students who intend to complete the Minor program in Classics should include CLA040H3 & CLA049H3 in their 1st year course selection. Students are also strongly encouraged to take HUMA01H3 (Exploring Key Questions in Humanities) as early as possible in their studies. The Classical Studies Study Guide is available at: www.arts.utsc.utoronto.ca/~humsid/preg.cl.html

MINOR PROGRAM IN CLASSICAL STUDIES (ARTS)
Undergraduate Advisor: 416-287-7184 Email: classics-undergrad-advisor@uottawa.ca

Program Requirements
Students must complete four full credits, as follows:

1. Introduction
   CLA040H3 The Ancient Mediterranean World

2. History and Culture
   CLA051H3 History and Culture of the Greek World
   CLA052H3 History and Culture of the Roman World

3. Mythology and Religion
   CLA049H3 Ancient Mythology II: Greece and Rome
   CLA022H3 Religions of the Ancient Mediterranean

4. Literature (0.5 credit from the following courses)
   CLAC111H3 Classical Literature I: Poetry
   CLAC121H3 Classical Literature II: Prose

5. Electives (1 full credit from the following courses):
   - Classical Studies
     CLA051H3 Ancient Mythology I: Mesopotamia and Egypt
     CLA010H3 Greek and Latin for Scientists
     CLA080H3 The Classical World in Film
   - CLAC011H3 Selected Topics in Classical Literature
   - CLAC012H3 Selected Topics in Classical Civilization
   - CLAC103H3 Environment, Society and Economy in Preclassical and Roman Egypt
   - CLAC111H3 Classical Literature I: Poetry if not taken as a required course
   - CLAC121H3 Classical Literature II: Prose if not taken as a required course
   - CLAC241H3 Multiculturalism and Cultural Identities in the Greek and Roman Worlds
CLAD101H3 Water Management in the Ancient Mediterranean World

Art History
VFIB41H3 The Human Figure in Greek Art (8th-6th cent. B.C.)
VFIB52H3 Ancient Art and Architecture (ca. 900 B.C.-300 A.D.)
VFIB76H3 Religion in the Arts: The Judeo-Christian Tradition
VFIC46H3 Topics in Art of the Ancient World
VFIC55H3 The Silk Routes

English
ENGB18H3 Classical Myth and Literature
ENGC16H3 The Bible and Literature I
ENGC17H3 The Bible and Literature II
ENGC26H3 Drama: Tragedy
ENGC27H3 Drama: Comedy

Languages
LGIA59H3 Introductory Latin I
LGIA55H3 Introductory Latin II
LGIA54H3 Introductory Sanskrit I
LGIA53H3 Introductory Sanskrit II
LGIB54H3 Intermediate Sanskrit I
LGIB55H3 Intermediate Sanskrit II

Music
VPMOC9H3 Orpheus

Philosophy
PHLB15H3 Political Philosophy; Ancient Greece and the Middle Ages
PHLB33H3 Introduction to Ancient Philosophy
PHLC32H3 Topics in Ancient Philosophy

Religion
RLGB01H3 The “Holy Book” in Judaism, Christianity and Islam
RLGO01H3 The Five Books of Moses
RLGO02H3 The Gospels
RLGO03H3 Paul and the Invention of Christianity
RLGO04H3 Hindu Epic
RLGO05H3 The Qur'an in Interpretive and Historical Context

Anthropology
ANTIB04H3 Artifacts and Prehistory
ANTIB12H3 Introduction to World Prehistory: The Rise of Civilization

Note: Students who were enrolled at UTSC prior to the 2009 Summer Session may substitute one of (CLAA04H3) or (CLAA03H3) for CLAA06H3 in Requirement 3. Students who have both (CLAA03H3) & (CLAA03H3) may substitute one of the courses for CLAA04H3 in Requirement 1.

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 understood, while a certain attention will be dedicated to evidence and disciplinary issues.
Same as HISAA07H3.
Exclusion: HISAA07H3
Breadth Requirement: 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 NMC3807Y
Breadth Requirement: History, Philosophy & Cultural Studies
CLA40H3 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: CLA240H1, CLA420H3, CLA403H3
Recommended Preparation: CLA403H3
Breadth Requirement: 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 HISB100H3.
Exclusion: CLA230H1, HISB100H3
Breadth Requirement: 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 HISB111H3.
Exclusion: CLA231H1, HISB111H3
Recommended Preparation: CLAB05H3
Breadth Requirement: 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 sets, and the influence of archaeology on their portrayals. Films will be studied critically for historical accuracy and faithfulness to classical sources.
Exclusion: CLAB207H1
Recommended Preparation: CLAB05H3 or CLAB06H3 or (CLAAB2H3 or CLAAB2H3)
Breadth Requirement: 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: CLAC000H
Breadth Requirement: 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 Requirement: 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 IEBC322H1, HISCH100H3
Prerequisite: Any 5 full credits including 1 full credit in Classical Studies or History
Exclusion: IEBC321H1, HISCH101H3
Recommended Preparation: CLAB05H3 & CLAB06H3
Breadth Requirement: 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 lyric poetry. 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: CLAAB01H3
Breadth Requirement: 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: CLAAB01H3 & CLAC11H3
Breadth Requirement: Arts, Literature & Language

CLAC22H3 Religions of the Ancient Mediterranean
A comparative study of the Mesopotamian, Egyptian, Phoenician and Punic, Coptic, Palmyrene, Persian, Greek- Roman and Judaeo-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: CLAC361H1, IMC300Y
Recommended Preparation: CLAB05H3 & CLAB06H3
Breadth Requirement: 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 Greeks and Roman worlds. Special attention will be dedicated to the evidence through which these issues are documented and to their fundamental influence on the formation and evolution of ancient Mediterranean societies and cultures.
Same as HISCH11H3
Prerequisite: One full credit in Classics or History
Exclusion: HISCH11H3
Recommended Preparation: CLAB05H3 & CLAB06H3
Breadth Requirement: History, Philosophy & Cultural Studies
Cognitive Science

Faculty List
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
M.G. Smith, B.A. (Toronto), Ph.D. (MIT), Professor Emeritus
R.J. Bimick, B.A. (CUNY), M.A., Ph.D. (Chicago), Professor
G. Hirst, B.A., B.Sc. (Montreal), M.Sc. (A.N.U., U.B.C.), Ph.D. (Brown), Professor
R. Joodens, B.A. (New Brunswick), M.A., Ph.D. (Waterloo), Professor
M.A. Schmackler, B.A. (SUNY-Binghamton), Ph.D. (Cornell), Professor
W.E. Soar, M.A. (Alberta), Ph.D. (Toronto), Professor
G.S. Crec, B.A., M.A., Ph.D. (Western), Associate Professor
S. Sedovy, B.A. (Toronto), Ph.D. (Pittsburgh), Associate Professor
R. Smyth, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor

COGC9H3
COGCS9H3
COGSD9H3 Supervised Study in Cognitive Science
Supervised reading or research project.
These courses provide an opportunity to pursue advanced study in a specialized area following the appropriate scheduled courses and in close consultation with the supervisor. They are not intended as a substitute for scheduled advanced courses. They are intensive research projects intended to provide laboratory/field experience in data collection and analysis. Projects must be completed over 2 consecutive terms. 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.utsa.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.

Cognitive Science

Faculty List
W.H. Enright, B.Sc. (U.B.C.), M.Sc., Ph.D. (Toronto), Professor
D.J. Elliott, B.Sc. (Queen’s), M.Sc., Ph.D. (Toronto), Professor
V. Hadzi-Stancloff, B.S.E. (Princeton), Ph.D. (Harvard), Professor

Computer Science

Faculty List
W.H. Enright, B.Sc. (U.B.C.), M.Sc., Ph.D. (Toronto), Professor
D.J. Elliott, B.Sc. (Queen’s), M.Sc., Ph.D. (Toronto), Professor
V. Hadzi-Stancloff, B.S.E. (Princeton), Ph.D. (Harvard), Professor

Breadth Requirement: History, Philosophy & Cultural Studies
See the Language section of this Calendar for full course description.

LLGAA9H3 Introductory Latin I
LLGAA1H3 Introductory Latin II
LLGAA5H3 Introductory Sanskrit I
LLGAA5H3 Introductory Sanskrit II
LLGB5H3 Intermediate Sanskrit I
LLGB5H3 Intermediate Sanskrit II
See the Language section of this Calendar for full course description.

Enrolment Limits: 15
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 Major and Specialist Programs. Information on how to apply for admission to a Program is given below.

Note on Admission to CSC Courses
All CSC courses beyond the A-level, except for CSCB07H3, are limited enrolment with preference being given to students admitted to and enrolled in CSC programs. If towards the end of the registration period, spaces become available in CSC courses, registration may be opened up and some non-program students may be admitted on a first-come first-served basis. The following rules will apply:

1. All prerequisites for the course(s) must be satisfied
2. A student who is not in a CSC program and does not have a cumulative GPA of at least 2.5 may not take any B-level CSC course, except CSCB07H3
3. A student who is not in a CSC program and does not have a cumulative GPA of at least 3.0 may not take any C- or D-level CSC course
4. Permission to enrol must be confirmed by the Supervisor of Studies. Details will be posted on web sites during registration.

Science Engagement Courses
For science experimental learning through community outreach, classroom in-class and team research, please see the Science Engagement section of this Calendar.

SPECIALIST PROGRAM IN COMPUTER SCIENCE (SCIENCE)
This program has three streams:
1. Comprehensive Stream
2. Information Systems Stream
3. Software Engineering Stream

Program Admission
Each year, up to 80 students are admitted to the three streams of the Specialist Program in addition to those admitted to the Specialist Co-operative Program. There are three ways to be admitted:
1. Directly from Secondary School: Up to 40 students will be admitted directly from high school on the basis of academic performance. Applicants must have completed Grade 12 Calculus & Vectors and Advanced Functions.
2. At the end of 1st Year: Applicants must have completed all A-level courses required in their stream of the Specialist Program. Students applying for admission on completion of their first year (at least 4.0 half credits) will be accepted on the basis of their 1st year GPA and their marks in Computer Science and Mathematics courses. The minimum GPA to guarantee acceptance is calculated annually. It is never less than 2.0 and for this year it will not be greater than 2.8.
3. After 2nd Year: Admission of students after second year will also be on the basis of the grades they have received in Computer Science and Mathematics courses.
Students applying at the end of their first year or later will be considered together for a total of approximately 40 places in the Specialist Program. As noted above, a GPA of 2.80 and above will guarantee acceptance (provided all required A-level courses have been successfully completed).

Program Requirements
In order to remain in the Program, a student must maintain a cumulative GPA of 2.0 or higher throughout the Program. The courses may be taken in any order as long as the prerequisites and co-requisites are satisfied.

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. Comprehensive Stream

Supervisor of Studies: R. Pancer (416-287-7679), Email: pancer@utsc.utoronto.ca

This stream requires 14.5 full credits.

Writing requirement
(Should be completed by the end of second year.)


A-level courses

CSCA48H3 Introduction to Computer Programming
CSCA49H3 Introduction to Computer Science
CSCA69H3 Mathematical Expression and Reasoning for Computer Science
MATA23H3 Linear Algebra I
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences

B-level courses

CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Programming
CSCB03H3 Introduction to the Theory of Computation
CSCB05H3 Computer Organization
CSCB06H3 Design and Analysis of Data Structures
MATH24H3 Linear Algebra II
MATH41H3 Techniques of the Calculus of Several Variables I
MATH42H3 Techniques of the Calculus of Several Variables II
STAT22H3 Introduction to Probability

C-level courses

CSCC24H3 Principles of Programming Languages
CSCC33H3 Introduction to Databases
CSCC50H3 Numerical Algebra and Optimization
CSCC51H3 Numerical Approximation, Integration and Ordinary Differential Equations
CSCC63H3 Computability and Computational Complexity
CSCC69H3 Operating Systems
CSCC73H3 Algorithm Design and Analysis

D-level courses

CSCD03H3 Social Impact of Information Technology

Elective courses

Note: In selecting the 2.5 credits needed to meet this requirement, student must include at least one D-level (400-level) course. Two of (additional courses related to the practice of computing):

CSCC09H3 Programming on the Web
CSCC40H3 Analysis and Design of Information Systems
CSCC55H3 Microprocessor Systems
CSCC08H3 Software Engineering
CSCD11H3 Machine Learning and Data Mining
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD30H3 Database System Technology
CSCD51H3 Computer Networks
CSC321H Introduction to Neural Networks and Machine Learning
CSC372H Microprocessor Software
CSC384H Introduction to Artificial Intelligence
CSC428H Human-Computer Interaction
CSC469H Operating Systems Design and Implementation
CSC485H Computational Linguistics
CSC488H Compilers and Interpreters

Two (or additional fundamental mathematics courses):
MATB43H3 Introduction to Analysis
MATB44H3 Differential Equations I
MATC01H3 Groups and Symmetry
MATC32H3 Introduction to Number Theory
MATC34H3 Complex Variables
MATC35H3 Chaos, Fractals and Dynamics
MATD01H3 Fields and Groups
CSC446H Computational Methods for Partial Differential Equations
CSC456H High Performance Scientific Computing

One (or additional courses related to the theory of computing):
MATD96H3 Linear Programming and Optimization
MATC09H3 Introduction to Mathematical Logic
MATC16H3 Coding Theory and Cryptography
MATC321H Graph Theory and Algorithms for its Applications
MATC444H Introduction to Combinatorics
CSC438H Computability and Logic
CSC448H Formal Languages and Automata
CSC465H Formal Methods in Software Design

2. Information Systems Stream
Supervisor of Studies: R. Pancer (416-287-7679) Email: pancer@utsc.utoronto.ca
Note: Due to enrollment restrictions in required Management courses, registration in this stream is limited. A maximum of 20 students will be admitted annually to the second year of the Program. Selection will be based on grades in A-level courses specified for the Program with a minimum GPA of 2.5.

This stream requires 16.0 full credits.
Writing requirement
(Should be completed by the end of second year.)
See Comprehensive Stream.

A-level courses
CSCA08H3 Introduction to Computer Programming
CSCA15H3 Introduction to Computer Science
CSCA651H3 Mathematical Expression and Reasoning for Computer Science
MATA230H Linear Algebra I
MATA311H3 Calculus I for Mathematical Sciences
MATA370H3 Calculus II for Mathematical Sciences
MGTA01H3 Introduction to Management I
MGTA04H1 Introduction to Management II

B-level courses
CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Programming
CSCB32H3 Introduction to the Theory of Computation
CSCB51H3 Computer Organization
CSCB61H3 Design and Analysis of Data Structures
MATR24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
STAB32H3 Introduction to Probability
MUTB23H3 Managing People in Organizations
MUTC21H3 Managing Groups and Organizations
C-level courses
CSCC40H3 Analysis and Design of Information Systems
CSCC45H3 Introduction to Databases
CSCC63H3 Computability and Computational Complexity
CSCC66H3 Operating Systems
CSCC72H3 Algorithms and Analysis

D-level courses
CSCD03H3 Social Impact of Information Technology
CSCD08H3 Software Engineering
CSCD09H3 Database Systems Technology

Elective courses, all levels
One of (additional courses in scientific computing):
CSCC36H3 Numerical Methods
CSCC58H3 Numerical Algebra and Optimization

Two of (additional courses related to the practice of computing):
CSCC09H3 Programming on the Web
CSCC05H3 Microprocessor Systems
CSCD11H3 Machine Learning and Data Mining
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD38H3 Computer Networks
CSCD21H3 Introduction to Neural Networks and Machine Learning
CSCD32H3 Microprocessor Software
CSCD34H3 Introduction to Artificial Intelligence
CSCD45H3 Formal Methods in Software Design
CSCD46H3 Operating Systems Design and Implementation
CSCD48H3 Computational Linguistics
CSCD48H3 Compilers and Interpreters

One of (additional courses related to business and computing):
CSCD54H3 or (CSCD50H3) The Business of Software
MATB61H3 Linear Programming and Optimization
MGTC74H3 Analysis for Decision-Making

3. Software Engineering Stream
Supervisor of Students: R. Pancer (416-287-7679) Email: pancer@utsc.utoronto.ca
This stream requires 14.5 full credits

Writing requirement
(Should be completed by the end of second year.)
See Comprehensive Stream.

A-level courses
CSCA09H3 Introduction to Computer Programming
CSCA48H3 Introduction to Computer Science
CSCEA5H3 Mathematical Expression and Reasoning for Computer Science
MATA23H3 Linear Algebra I
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences

B-level courses
CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Programming
CSCB56H3 Introduction to the Theory of Computation
CSCB58H3 Computer Organization
CSCB63H3 Design and Analysis of Data Structures
MATB20H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
STAT325H3 Introduction to Probability
C-level courses
CSCC24H3 Principles of Programming Languages
CSCC40H3 Analysis and Design of Information Systems
CSCC43H3 Introduction to Databases
CSCC63H3 Computability and Computational Complexity
CSCC69H3 Operating Systems
CSCC73H3 Algorithm Design and Analysis

D-level courses
CSCD0XH3 Social Impact of Information Technology
CSCD0XH3 Software Engineering

Elective courses, all levels
One of (additional courses in scientific computing):
CSCC36H3 Numerical Methods
CSCC46H3 Numerical Algorithms and Optimization
Four of (additional courses in the practice of computing):
CSCC0XH3 Programming on the Web
CSCC65H3 Microprocessor Systems
CSCD11H3 Machine Learning and Data Mining
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD43H3 Database System Technology
CSCD55H3 Computer Networks
CSCG40H1 Operating Systems Design and Implementation
CSCG48H3 Computer and Interpreters

4. Joint Mathematics Stream
This stream has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in it are able to complete it. Students interested in this program should consider enrolling in the Major Program in Computer Science and the Major Program in Mathematics.

5. Joint Physics Stream
This stream has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in it are able to complete it. Students interested in this program should consider enrolling in the Major Program in Computer Science and the Major Program in Physics and Astrophysics.

6. Joint Statistics Stream
This stream has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in it are able to complete it. Students interested in this program should consider enrolling in the Major Program in Computer Science and the Major Program in Statistics.

SPECIALIST (CO-OPERATIVE) PROGRAM IN COMPUTER SCIENCE

Supervisor of Students: R. Pancs (416-287-7679) Email: pancsr@utsc.utoronto.ca

Co-op Contact: askco@utsc.utoronto.ca

The Co-operative Program in Computer Science is a work-study Program which combines academic studies in Computer Science with work terms in public and private enterprises. The Program prepares students for direct employment as a computer professional as well as for graduate study in Computer Science. For information on admissions, fees, work terms and standing in the Program, please see the Co-operative Programs section of this Calendar.

Program Admission
Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of TScarborough from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this Calendar.

Current U of TScarborough students: Application procedures can be found at the Registrar’s Office website: www.utsc.utoronto.ca/subjectpost. The minimum qualifications for entry are 4.0 full credits including CSCA68H3, CSCA48H3, CSCA65H3, MATA23H3, MATA24H3 & MATA37H3 plus a cumulative GPA of at least 2.75.

*The Information Systems stream also requires MGMTA00H3 & MGMTA44H3.

Program Requirements

Work Terms
Students who entered the Program in 2001/2002 or later, must complete three work terms along with the academic Program.
Students who entered before 2001/2002 must complete two work terms, with an optional third work term with permission of the Co-ordinator. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple
networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term. Students are not permitted to complete more than one summer work term.

**Course Requirements**

The Co-operative Program can be taken in conjunction with any of the streams in the Specialist Program in Computer Science. Please refer to the description of the Specialist Program in Computer Science. The courses may be taken in any order as long as the prerequisites and co-requisites are satisfied.

**Note:** Each student’s program requires the annual approval of the Supervisor of Studies. Students are individually responsible to ensure that they have correctly completed program and degree requirements for graduation.

**MAJOR CO-OPERATIVE PROGRAM IN COMPUTER SCIENCE (SCIENCE)**

*Supervisor of Studies: R. Pancer (416-287-7679) E-mail: pancer@ustc.utoronto.ca*

*Co-op Contact: adcoop@ustc.utoronto.ca*

See the Specialist Co-operative Program in Computer Science for admission information and work term requirements. Course requirements for the Co-operative Computer Science Major are the same as for the regular Computer Science Major (see below). The Co-operative Computer Science Major must be combined with a secondary Major in order to fulfill the degree requirements for an Honours B.Sc. The secondary Major must be pre-approved by the Supervisor of Studies.

**MAJOR PROGRAM IN COMPUTER SCIENCE (SCIENCE)**

*Supervisor of Studies: R. Pancer (416-287-7679) E-mail: pancer@ustc.utoronto.ca*

**Program Admission**

Each year up to 30 students are admitted to the second year of the Program, based on their first year GPA and marks in first-year courses in Computer Science and Mathematics. The minimum GPA to guarantee admission is calculated annually. It is never less than 2.00 and this year it will be greater than 2.80.

**Program Requirements**

This program requires 8.0 full credits. The courses may be taken in any order as long as the prerequisites and co-requisites are satisfied.

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.

**Writing recommendation:**

Students in the major program are strongly advised to take at least one of the following courses by the end of their second year:


**A-level courses**

- CSC A09H3 Introduction to Computer Programming
- CSC A10H3 Introduction to Computer Science
- CSC A35H3 Mathematical Expression and Reasoning for Computer Science
- MAT A21H3 Linear Algebra I
- MAT A31H3 Calculus I for Mathematical Sciences
- MAT A71H3 Calculus II for Mathematical Sciences

**B-level courses**

- CSC B07H3 Software Design
- CSC B16H3 Introduction to the Theory of Computation
- CSC B58H3 Computer Organization
- CSC B63H3 Design and Analysis of Data Structures
- MAT B24H3 Linear Algebra II
- STA B25H3 Introduction to Probability

**Effective courses, all levels**

The courses chosen must include four courses at the C- or D-level (300 or 400) level satisfying:

One of (additional courses in the practice of computing):

- CSC C09H3 Programming on the Web
- CSC C24H3 Principles of Programming Languages
- CSC C40H3 Analysis and Design of Information Systems
CSCC43H3 Introduction to Databases
CSCC69H3 Operating Systems
CSCC85H3 Microprocessor Systems
CSCD11H3 Machine Learning and Data Mining
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
(CSCD54H3) The Business of Software

One of (additional courses in scientific computing):

CSCC36H3 Numerical Methods
CSCC39H3 Numerical Algebra and Optimization

One of (additional courses in the theory of computing):

CSCC53H3 Computability and Computational Complexity
CSCC73H3 Algorithm Design and Analysis
CSC46H3 Formal Methods in Software Design
CSC44H3 Formal Languages and Automata

One of (additional courses in mathematics):

MATB41H3 Techniques of the Calculus of Several Variables I
MATB61H3 Linear Programming and Optimization
MATC39H5 Introduction to Mathematical Logic
MATC16H3 Coding Theory and Cryptography
MATC32H3 Graph Theory and Algorithms for its Applications
MATC44H3 Introduction to Combinatorics

MINOR PROGRAM IN COMPUTER SCIENCE (SCIENCE)

Supervisor of Studies: R. Pancer (416-287-7679) Email: pancer@utsc.utoronto.ca

Program Requirements

This program may not be combined with any Major or Specialist Program in Computer Science, Mathematics or Statistics. It requires 4.0 full credits as follows:

1. All of (introductory programming courses)
   CSCA20H3 Computer Science for the Sciences
   CSCA44H3 Introduction to Computer Science

2. One of (basic mathematics courses)
   CSCA65H3 Mathematical Expression and Reasoning for Computer Science
   MATA23H3 Linear Algebra I
   MATA31H3 Calculus I for Mathematical Sciences
   MATA32H3 Calculus for Management I
   PHIL35H3 Symbolic Logic I

3. One of (intermediate programming courses)
   CSCB07H3 Software Design
   CSCB09H3 Software Tools and System Programming

4. One of (prerequisites for other courses in the program)
   CSCB58H3 Introduction to the Theory of Computation

5. One of (courses in theoretical computer science or scientific computing)
   CSCB03H3 Design and Analysis of Data Structures
   CSCC36H3 Numerical Methods
   CSCC39H3 Computability and Computational Complexity
   CSCC73H3 Algorithm Design and Analysis

6. One of (courses in the practice of computing)
   CSCC24H3 Principles of Programming Languages
   CSCC40H3 Analysis and Design of Information Systems
   CSCC43H3 Introduction to Databases
   CSCC69H3 Operating Systems
   CSCC85H3 Microprocessor Systems
   CSCD03H3 Social Impact of Information Technology

7. One additional course from those listed in Requirements 5 and 6

Requirement 1 note: CSCA09H3 may be substituted, with permission of the program supervisor, for CSCA20H3.
Requirements 5 & 6 note: CSCB63H3, CSCC09H3, CSCC16H3, CSCS46H3, CSCS40H3, CSCS69H3 & CSCS73H3 may require that you take more than 4.0 full credits to complete the program. If you are interested in taking one of these courses, check the prerequisites carefully before deciding which course to select. See the program supervisor if you need a program exception for the statistics prerequisite for CSCB63H3 or for the calculus prerequisite for CSCS69H3.

SPECIALIST PROGRAM IN MANAGEMENT AND INFORMATION TECHNOLOGY (SCIENCE)
See the Management section of this Calendar for program requirements.

SPECIALIST PROGRAM IN QUANTITATIVE ANALYSIS (SCIENCE)
See the Statistics section of this Calendar for program requirements.

CSCA08H3 Introduction to Computer Programming
Structure of computers; the computing environment. Programming in an object-oriented language such as Python. Program structure: elementary data types, statements, control flow, functions, classes, objects, methods, fields, lists, searching, sorting and complexity. Prerequisite: Any Grade 12 mathematics course.
Note: This course is intended for students with no prior exposure to computer programming. Students who have sufficient programming experience may enrol directly in CSCA48H3; consult the instructor or the Supervisor of Studies for guidance.
Exclusion: CSCA20H3, CSC108H, CSC120H, CSCA09H3 may not be taken after or concurrently with CSCA48H3.
Breadth Requirement: Quantitative Reasoning

CSCA20H3 Computer Science for the Sciences
An introduction to computer science for students in other sciences, with an emphasis on gaining practical skills. Introduction to programming: web programming, database design, software tools; examples and exercises taken from the sciences. At the end of this course you will be able to develop computer tools for scientific applications, such as the structuring and analysis of experimental data.
Exclusion: CSCA08H3, CSC108H, CSC120H
Breadth Requirement: Quantitative Reasoning

CSCA48H3 Introduction to Computer Balance
Abstract data types and data structures for implementing them. Linked data structures. Encapsulation and information-hiding. Object-oriented programming. Specifications. Analyzing the efficiency of programs. Recursion. Prerequisite: CSCA08H3 & Grade 12 Calculus & Vectors & one other Grade 12 mathematics course. Note: This course assumes programming experience in an object-oriented language such as Python, C++ or Java, as provided by CSCA08H3. Students who already have this background may consult the instructor or Supervisor of Studies for advice about skipping CSCA08H3.
Exclusion: CSCA14H3
Breadth Requirement: Quantitative Reasoning

CSCA59H3 Mathematical Expression and Reasoning for Computer Science
Introduction to abstraction and rigor: Understanding, using and developing precise expressions of mathematical ideas, including definitions and theorems. Informal introduction to logical notation and reasoning. Representation of floating point numbers and introduction to numerical computation. Prerequisite: CSCB07H3 & Grade 12 Calculus & Vectors & one other Grade 12 mathematics course.
Corequisite: CSCA48H3
Exclusion: CSCS15H1, CSCS24H1
Breadth Requirement: 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, design patterns, advanced IDE usage, regular expressions, mark-up languages, parsing using finite state machines, and reflection. Prerequisite: CSCA48H3
Corequisite: CSCB05H3
Exclusion: CSCB27H1
Breadth Requirement: Quantitative Reasoning

CSCB08H3 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: CSCB07H3 & [COPA 2.5 or enrollment in a CSC Subject POE]
Exclusion: CSCB20H1
Breadth Requirement: Quantitative Reasoning

CSCB22H3 Concepts in Elementary Computer Science
A course specifically for students intending to become elementary or high school teachers. Computer science concepts will be discussed at a fundamental level. Topics covered: problem solving, algorithms, recursion, applications, connections to mathematics, connections to society. Throughout the course, students will apply these concepts to fit the current Ministry's Guidelines for the various grade levels. Students may be required to teach some one-hour classes to various grade levels in an approved school. This is a "teaching friendly" course. The course will be broken up into three distinct topics: elementary level (grades K-5), intermediate (grades 6-9), senior (grades 10-12).
Prerequisite: [CSCA08H3 or CSCA20H3 or PSB57H1] & 3 other full credits & a cumulative CGPA of at least 2.5. Priority
will be given to ETP/CEP students. Note: This course assumes programming experience in a language such as Python, C++, or Java as provided by CSCA/0313. Students who already have this background may consult the instructor or Supervisor of Studies for advice about skipping CSCA/0313/CSCA2013/PSCB371H.
Exclusion: This course may not be taken after or concurrently with any C- or E-level Computer Science course.
Breadth Requirement: Quantitative Reasoning

CSCB36H3 Introduction to the Theory of Computation
Mathematical induction 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: CSCA44H3 & CSCA651H or [CGPA 2.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC230H, CSC240H
Breadth Requirement: Quantitative Reasoning

CSCB58H3 Computer Organization
Computer structures, machine languages, instruction execution, addressing techniques, and digital representation of data. Computer system organization, memory storage devices, and microprogramming. Block diagram circuit realizations of memory, control and arithmetic functions. There are a number of laboratory periods in which students conduct experiments with digital logic circuits.
Prerequisite: [CSCA44H3 or PSCB371H] & [CGPA 2.5 or enrolment in a CSC Subject POSt] or [CGPA 2.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC22S8H
Breadth Requirement: Quantitative Reasoning

CSCB63H3 Design and Analysis of Data Structures
Prerequisite: CSCB301H & CSCB361H & STAB52H3 & [CGPA 2.5 or enrolment in a CSC subject POSt] or [CGPA 2.5 or enrolment in a CSC subject POSt] or [CGPA 2.5 or enrolment in a CSC subject POSt] or [CGPA 2.5 or enrolment in a CSC subject POSt]
Exclusion: CSCB26H, CSCB26S1H
Breadth Requirement: Quantitative Reasoning

CSCC09H3 Programming on the Web
Prerequisite: CSCB901H & CSCC03H & [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt]
Exclusion: CSCB36H, CSCB36S1H
Breadth Requirement: Quantitative Reasoning

CSCC24H3 Principles of Programming Languages
Major topics in the development of modern programming languages. Syntax specification, type systems, type interface, exception handling, information handling, structural recursion, run-time storage management, and programming paradigms. Two non-credit programming projects: functional programming (e.g., Lisp, Scheme, ML or Haskell) and logic programming (e.g., Prolog, XSB or Curry).
Prerequisite: CSCB071H & CSCB361H & [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt]
Exclusion: CSCC34H
Breadth Requirement: Quantitative Reasoning

CSCC35H3 Numerical Methods
The study of computational methods for solving problems in linear algebra, non-linear equations, approximation, integration, and ordinary differential equations. The aim is to give students both a basic understanding of floating-point arithmetic and the methods used to solve numerical problems as well as a familiarity with the types of subroutines found in typical software packages.
Prerequisite: [PSCB371H or CSCB071H] & [MATA36H3 or MATA37H3] & MATA23H3 & [CGPA 3.0 or enrolment in a CSC subject POSt] or [CGPA 3.0 or enrolment in a CSC subject POSt] or [CGPA 3.0 or enrolment in a CSC subject POSt] or [CGPA 3.0 or enrolment in a CSC subject POSt]
Exclusion: CSCC36H, CSCC75H, CSCC35H, CSCC50H, CSCC51H
Breadth Requirement: Quantitative Reasoning

CSCC40H3 Analysis and Design of Information Systems
Theory, tools and techniques of information systems analysis and design. Topics include: theory of systems and organizations, structural analysis and design, user interface design.
Prerequisite: CSCB63H3 & [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt]
Exclusion: CSCC40H
Breadth Requirement: Quantitative Reasoning

CSCC42H3 Introduction to Databases
Prerequisite: CSCB36H1H & [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt]
Exclusion: CSCC42H
Breadth Requirement: Quantitative Reasoning

CSCC50H3 Numerical Algebra and Optimization
The efficiency and stability of solution techniques for systems of linear equations and least squares problems, including LU- and QR-based methods. Algorithms for optimization problems, including linear programming, and for systems of nonlinear equations.
Prerequisite: [PSCB371H or CSCB071H] & MATH24H3 & MATH34H3 & [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt]
Exclusion: CSCC36H1H, CSCC36H, CSCC35H1H
Breadth Requirement: Quantitative Reasoning

CSCC51H3 Numerical Approximation, Integration, and Ordinary Differential Equations
Prerequisite: CSCC50H1H & [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt] or [CGPA 3.0 or enrolment in a CSC Subject POSt]
Exclusion: CSCB36H1H, CSCC36H, CSCC35H1H
Breadth Requirement: Quantitative Reasoning
CSC636H3 Computation and Computational Complexity
Introduction to the theory of computability: Turing machines, Church's thesis, compatible 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 CSC636H3 & CSC737H3 may be taken in any order, it is recommended that CSC737H3 be taken first.
Prerequisite: CSC336H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC636H3, CSC636H3, CSC636H4
Breadth Requirement: Quantitative Reasoning

CSC890H3 Operating Systems
Principles of operating systems. The operating system as a central control program and as a resource allocator. The concept of a process and concurrency problems: synchronization, mutual exclusion, deadlock. Additional topics include network management, file systems, process scheduling, threads, and protection.
Prerequisite: CSCB107H3 & CSCB109H3 & CSCB108H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC636H3
Breadth Requirement: Quantitative Reasoning

CSC737H3 Algorithm Design and Analysis
Standard algorithm design techniques: divide-and-conquer, greedy strategies, dynamic programming, linear programming, randomization, and possibly others.
Prerequisite: CSC636H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC373H3, CSC375H1, CSC364H1
Breadth Requirement: Quantitative Reasoning

CSC569H3 Microprocessor Systems
A study of hardware and software aspects of microcomputers and microprocessors. This course will examine instruction sets, addressing modes, memory devices, bus structures, input/output and interrupt mechanisms, Assembly language and high-level language programming. System and applications software. Laboratory experiments will provide hands-on experience.
Prerequisite: CSCB103H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: ECE338H3 Enrolment Limits: 100
Breadth Requirement: Quantitative Reasoning

CSC693H3 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, computer-aided; invasion of privacy; computer-based crime; and professional ethics in the software industry. There will be an emphasis on current events relating to these topics.
Prerequisite: 3.0 full credits including: CSCA08H3 or PSB357H3 or CSCA48H3 [or, in special cases, (CSCA02H3) & permission of the instructor]
Exclusion: CSC206H1 Enrolment Limits: 25
Breadth Requirement: Social & Behavioural Sciences

CSC888H3 Software Engineering
The structure and unique characteristics of large software systems. Concepts and techniques in the design and implementation of large software systems. Requirements definition and specification. Software modularity and programming languages for system implementation. Debugging, testing and software quality assurance. Software project management. Formal methods in software engineering. A course project is used to illustrate software engineering techniques.
Prerequisite: CSC406H3 & [CSCB09H4 or proficiency in C] & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC406H1
Breadth Requirement: Quantitative Reasoning

CSC411H3 Machine Learning and Data Mining
Prerequisite: MAT242H3 & MAT341H3 & STA522H3 & CSCB603H3 & [CSCC05H3 or CSCC05H3 or permission of the instructor] & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC411H1
Breadth Requirement: Quantitative Reasoning

CSCD10H3 Computer Graphics
Identification and characterization of objects manipulated in computer graphics. Operations on these objects, efficient algorithms to perform these operations, and interfaces to transform one type of object to another. Display devices, display data structures and procedures, graphical input, object modeling, transformations, illumination models, light effects, graphs, packages and systems.
Prerequisite: MAT242H3 & MAT241H3 & [CSCB09H3 or proficiency in C] & [CSCB603H3 & CSCC59H3 or CSCC59H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC411H1
Breadth Requirement: Quantitative Reasoning

CSC272H3 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; encryption, system and network attacks and defenses; intrusion detection and prevention; social engineering attacks; risk assessment and management.
Prerequisite: CSCB102H3 & CSCB103H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC271H
Recommended Preparation: CSC693H3
Breadth Requirement: Quantitative Reasoning

CSC458H3 Database System Technology
Implementation of database management systems. Storage management, index, 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.

CSC638H3 Operating Systems
Principles of operating systems. The operating system as a central control program and as a resource allocator. The concept of a process and concurrency problems: synchronization, mutual exclusion, deadlock. Additional topics include network management, file systems, process scheduling, threads, and protection.
Prerequisite: CSCB107H3 & CSCB109H3 & CSCB108H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC636H3
Breadth Requirement: Quantitative Reasoning

CSC737H3 Algorithm Design and Analysis
Standard algorithm design techniques: divide-and-conquer, greedy strategies, dynamic programming, linear programming, randomization, and possibly others.
Prerequisite: CSC636H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC373H3, CSC375H1, CSC364H1
Breadth Requirement: Quantitative Reasoning

CSC569H3 Microprocessor Systems
A study of hardware and software aspects of microcomputers and microprocessors. This course will examine instruction sets, addressing modes, memory devices, bus structures, input/output and interrupt mechanisms, Assembly language and high-level language programming. System and applications software. Laboratory experiments will provide hands-on experience.
Prerequisite: CSCB103H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: ECE338H3 Enrolment Limits: 100
Breadth Requirement: Quantitative Reasoning

CSC693H3 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, computer-aided; invasion of privacy; computer-based crime; and professional ethics in the software industry. There will be an emphasis on current events relating to these topics.
Prerequisite: 3.0 full credits including: CSCA08H3 or PSB357H3 or CSCA48H3 [or, in special cases, (CSCA02H3) & permission of the instructor]
Exclusion: CSC206H1 Enrolment Limits: 25
Breadth Requirement: Social & Behavioural Sciences

CSC888H3 Software Engineering
The structure and unique characteristics of large software systems. Concepts and techniques in the design and implementation of large software systems. Requirements definition and specification. Software modularity and programming languages for system implementation. Debugging, testing and software quality assurance. Software project management. Formal methods in software engineering. A course project is used to illustrate software engineering techniques.
Prerequisite: CSC406H3 & [CSCB09H4 or proficiency in C] & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC406H1
Breadth Requirement: Quantitative Reasoning

CSC411H3 Machine Learning and Data Mining
Prerequisite: MAT242H3 & MAT341H3 & STA522H3 & CSCB603H3 & [CSCC05H3 or CSCC05H3 or permission of the instructor] & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC411H1
Breadth Requirement: Quantitative Reasoning

CSCD10H3 Computer Graphics
Identification and characterization of objects manipulated in computer graphics. Operations on these objects, efficient algorithms to perform these operations, and interfaces to transform one type of object to another. Display devices, display data structures and procedures, graphical input, object modeling, transformations, illumination models, light effects, graphs, packages and systems.
Prerequisite: MAT242H3 & MAT241H3 & [CSCB09H3 or proficiency in C] & [CSCB603H3 & CSCC59H3 or CSCC59H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC411H1
Breadth Requirement: Quantitative Reasoning

CSC272H3 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; encryption, system and network attacks and defenses; intrusion detection and prevention; social engineering attacks; risk assessment and management.
Prerequisite: CSCB102H3 & CSCB103H3 & [COPA 3.0 or enrollment in a CSC Subject POSI]
Exclusion: CSC271H
Recommended Preparation: CSC693H3
Breadth Requirement: Quantitative Reasoning

CSC458H3 Database System Technology
Implementation of database management systems. Storage management, index, 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: CSC443H3 & CSC691H3 & CSC573H3 & [CGPA 3.0 or enrolment in a CSCI Subject POSI]. Exclusion: CSC443H1
Breadth Requirement: Quantitative Reasoning

CSCD589H3 Computer Networks
Computer communication network principles and practices. 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: CSC113H3 & CSC163H3 & [STAB52H3 or STAB57H3] & [CGPA 3.0 or enrolment in a CSCI Subject POSI]. Exclusion: CSC558H1
Breadth Requirement: 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 & [CGPA 3.0 or enrolment in a CSCI Subject POSI]. Normally intended for students who have completed at least 8.0 full 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 & [CGPA 3.0 or enrolment in a CSCI Subject POSI]. Normally intended for students who have completed at least 8.0 full credits.

CSCD94H3 Computer Science Project
A significant project in any area of computer science. The project may be undertaken individually or as 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 computer science half-courses] & [permission of the Supervisor of Studies] & [CGPA 3.0 or enrolment in a CSCI Subject POSI].
Enrollment procedure: Project supervisor's note of agreement must be presented to the Supervisor of Studies, who must issue permission for registration.
Exclusion: CSC51H1

CSCD95H3 Computer Science Project
A significant project in any area of computer science. The project may be undertaken individually or as 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 computer science half-courses] & [permission of the Supervisor of Studies] & [CGPA 3.0 or enrolment in a CSCI Subject POSI].
Enrollment procedure: Project supervisor's note of agreement must be presented to the Supervisor of Studies, who must issue permission for registration.
Exclusion: CSC51H1

Concurrent Teacher Education Web address: www.usc.utoronto.ca/ctep
CTEP Co-ordinator: S. Spaul (416-280-2796, Room N4431) Email: spaul@usc.utoronto.ca
CTEP Academic Advisor (Mathematics/Science): X. Jiang Email: jiang@usc.utoronto.ca
CTEP Academic Advisor (Physical Sciences): C. Dyer Email: dyer@usc.utoronto.ca

The Concurrent Teacher Education Program (CTEP) is a partnership between the Ontario Institute for Studies in Education (OISE) and six other academic units of the University of Toronto, including the University of Toronto Scarborough, which allows students interested in a career in teaching to complete two undergraduate degrees at the same time during five years of full-time study. Upon successful completion of the program, U of T Scarborough students will earn both a Bachelor of Education and either an Honours Bachelor of Arts or an Honours Bachelor of Science and will be recommended for certification in elementary or secondary teachers in Ontario.

There are two CTEP options at U of T Scarborough:

a. CTEP/Arts - French: This program prepares students to become teachers at the primary-junior level (Kindergarten to Grade 6) or the intermediate-secondary level (Grades 7 to 12).

b. CTEP/Science - Mathematical & Physical Sciences: This program prepares students to become teachers at the primary-junior level (Kindergarten to Grade 6) or the intermediate-secondary level (Grades 7 to 12).

Teaching Subjects
Intermediate/Secondary (JS): Students must have two teaching subjects, the main teaching (anchor) subject and a second teaching subject.

Primary/Secondary (TJS): Students must have an anchor subject but they do not need a second teaching subject (although it is recommended). As teachers, they will cover many topics in the curriculum and should have knowledge of a range of areas.
Concurrent Teacher Education

Students declare their anchor and second subjects and teaching level (primary/junior or intermediate/secondary) in the session following attainment of their 4th credit.

- **Anchor subjects**: For students admitted to CTEP/Arts, the anchor in French as A Second Language. For students admitted to CTEP/Science, the anchor is one of Mathematics, Science-Chemistry or Science-Physics.
- **Second subjects**: Eligible second subjects at UTSC are: Computer Studies; Dramatic Arts; Economics; English; French as a Second Language; Geography; History; Mathematics; Politics; Science-Biology; Science-Chemistry; Science-Computer; Science-Physics; and, Visual Arts.

Upon receiving their fourth full credit, students also select the specialist or major programs that are associated with their anchor subject.

**Specialist and Major Programs Associated with Anchor Subjects**
(See the Chemistry, French, Mathematics, Physical Sciences, Physics or Statistics section of this Calendar for specific program requirements.)

CTEP/Arts
a. Specialist Program in French

CTEP/Science
- Specialist Program in Biological Chemistry
- Specialist Program in Chemistry
- Specialist Program in Mathematics
- Specialist Program in Mathematics and Its Applications
- Specialist Program in Physical and Mathematical Sciences
- Specialist Program in Physics and Astrophysics
- Specialist Program in Quantitative Analysis
- Two approved major programs, one of which must be from the following list:
  a. Major Program in Physics and Astrophysics
  b. Major Program in Biochemistry
  c. Major Program in Chemistry
  d. Major Program in Mathematics
  e. Major Program in Physical Sciences
  f. Major Program in Statistics

**Note**: If available, students are encouraged to enrol in a minor program associated with their second teaching subject.

**Admissions**

In most cases, students apply to enter CTEP either directly from secondary school or after their first year of university studies.

**Prospective Applicants**: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty, applicants must indicate the special code for the program on the Application for Admission to an Ontario University. See the Admissions section of this Calendar for more information and deadlines.

Upon receiving the application, the University of Toronto's Admissions office will send the applicant a confirmation letter and Applicant Instruction Guide. At this stage, CTEP applicants will be required to complete an online Application Profile.

**Current U of T Scarborough Students**: Application procedures can be found at the Registrar's Office website at: www.utsc.utoronto.ca/subjectpost. Admission is competitive. Applications will be considered from students who:

a. Are enrolled in an eligible specialist or major program
b. Have at least 4.6 credits including the recommended first year courses for the appropriate specialist or major program
c. Have a cumulative GPA of at least 2.50

**Academic status in CTEP**

**Note**: These rules are over and above the rules governing overall standing at UTSC as described in the Overall Standing section of this Calendar and apply to the Honours Bachelor of Arts or Honours Bachelor of Science part of CTEP.

Academic status within CTEP will be determined as follows at the end of each Winter Session for all students who have attempted at least eight full credits since beginning their studies in their degree.

1. **In good standing in CTEP**
   - Students who maintain a cumulative grade point average of 2.50 or better are said to be "in good standing" in CTEP.
2. On probation in CTEP
Students who have attempted at least eight full credits and have a cumulative GPA below 2.50 will be placed on probation in CTEP.

3. Probation in CTEP cleared
Students may clear probation by achieving a cumulative GPA of at least 2.50. Students who have cleared probation shall be said to be again in good standing in CTEP.

4. Probation in CTEP continued
Students may continue on probation in CTEP by achieving an annual (Fall/Winter) GPA of at least 2.70 until such time as they return to good standing. Students who fail to meet this requirement will be allowed to continue on probation if they have a GPA of at least 2.50 in the best 75% of their courses.

5. Required to withdraw from CTEP
The following students will be required to withdraw from CTEP:
   a) Any student on probation in CTEP who fails to achieve an annual GPA of at least 2.70 or who fails to achieve a GPA of at least 2.50 in the best 75% of their courses.
   b) Any student who, under the general rules governing overall standing, incurs a suspension.
   c) Any student who fails to meet OISE's standards for continued enrollment in the B.Ed. program.

Program Requirements
The program requires completion of:
   a) An Honours Bachelor of Arts or an Honours Bachelor of Science degree (see the degrees section of this Calendar for specific degree requirements) including:
      1. Students must complete 5 full credits per year unless a CTEP advisor recommends otherwise.
      2. Completion of an approved specialist program or of two approved major programs.
   b) The following education focused courses:
      a) PSYB21H3 (Introduction to Developmental Psychology: Focus on Education) to be taken within Years 1 or 2 (includes 12-20 hours field placements).
      b) CTEB35H3 (Equity and Diversity in Education) to be taken within Years 2 or 3.
      c) CTEC31H3 (Communication and Conflict Resolution) to be taken within Years 2 or 3.
      d) CTEP internship in a school or community organization to be taken within Years 3, 4 or 5.
   c) Students who choose, or are required, to withdraw from CTEP will be allowed to transfer to a non-CTEP Honours Bachelor of Arts or Honours Bachelor of Science, retaining credit for all courses except the internship in d) above and the Bachelor of Education courses listed below.
      a) A Bachelor of Education degree which requires completion of 5.0 full credits as follows:
         a) Year 3: Principles of Teaching: Legal, Ethical and Professional (0.5 credit).
         b) Year 3: Inclusive Education: ESL and Exceptional Learners (0.5 credit) which includes 12-20 hour field experience focused on observation/learning.
         c) Year 4: Psychological Foundations of Learning (0.5 credit).
         d) Year 4: Social Foundations of Teaching and Schooling (0.5 credit).
         e) Year 4: Mentored Inquiry and Teaching (0.25 credit) with 10-15 days spent in schools.
         f) Year 4: Curriculum, Instruction and Assessment 1 (1.0 credit).
         g) Year 4: Practicum placement in schools (0.25 credit), 35-40 days, 3.5 days per week, Winter session.
         h) Year 5: Mentored Inquiry and Teaching (0.25 credit) with 10-15 days spent in schools.
         i) Year 5: Curriculum, Instruction and Assessment 2 (1.0 credit).
         j) Year 5: Practicum placement in schools (0.25 credit), 25 days, 5 days per week, month of May to be taken in Year 5.
   d) Over the course of the program, CTEP students will also develop a Portfolio, a reflection of artifacts, assignments and reflective activities that mirror their growth as CTEP candidates from students to professionals.
      (For more information on these courses and OISE related CTEP requirements, see the OISE Calendar.)

Graduation from CTEP
In order to graduate in the CTEP program, students will be required:
1. To complete requirements of an Honours B.A. or an Honours B.Sc.
2. To complete the requirements of a B.Ed. having achieved a cumulative GPA of at least 2.50 in their best 15.0 credits at UTSC.
Diaspora and Transnational Studies

Faculty List
M. Lambert, B.A. (McGill), M.A., Ph.D. (Michigan), F.R.S.C., Professor
M.B. Goldman, M.A. (Victoria), Ph.D. (Toronto), Associate Professor
E.A. Harney, M.Phil., Ph.D. (London), Associate Professor
N. Kontominas, M.A., Ph.D. (Toronto), Associate Professor
P. Landolt, B.A., M.A. (York), M.A., Ph.D. (Johns Hopkins), Associate Professor
G. Daswani, B.Sc. (National University of Singapore), M.Sc., Ph.D. (London School of Economics), Assistant Professor
K. MacDermid, B.A., M.A., Ph.D. (Waterloo), Assistant Professor
A. Paz, B.A. (Queen’s), M.A. (Tel Aviv), M.A. (Chicago), Ph.D. (Chicago), Assistant Professor

Undergraduate Counsellor: J. Roopnarineh Singh Email: social-sciencecounsellor@utsc.utoronto.ca

Where is home? Need it be in one place? Is it always attached to territory? Diaspora and transnational studies examines the historical and contemporary movements of peoples and the complex problems of identity and experience to which these movements give rise as well as the creative possibilities that flow from movement. The program is comparative and interdisciplinary, drawing from the social sciences, history, and the arts. Students are required to take two linked half-courses that offer an introduction to a broad array of themes and disciplinary methodologies and two fourth-year seminars that build on the understanding developed in the course of the program. The program offers a wide selection of additional courses, giving students the opportunity to learn about a range of diasporic communities as well as key debates in the field.

MAJOR PROGRAM IN DIAPORA AND TRANSNATIONAL STUDIES (ARTS)

Students must complete 7.0 full credits as follows:

1. DT5B01H Introduction to Diaspora and Transnational Studies I
   DT5B02H Introduction to Diaspora and Transnational Studies II

2. 2.0 full credits from Group A and Group B courses (below) with at least 2.0 full credits from each group. Coverage must include at least two diasporic communities or regions, to be identified in consultation with the program adviser. At least 1.0 full credit must be at the C-level or above.

3. Any two of:
   DT5401H Advanced Topics in Diaspora and Transnational Studies
   DT5402H Advanced Topics in Diaspora and Transnational Studies
   DT5403H Advanced Topics in Diaspora and Transnational Studies
   DT5404H Advanced Topics in Diaspora and Transnational Studies

*Students pursuing a DTS major should contact the Centre for Diaspora and Transnational Studies (CDTS@utsc.utoronto.ca) to be enrolled in these courses.

Note: In addition, while not required at this point in time, the Faculty of Arts & Science course QJR3605H (The Canadian Census: Populations, Migrations and Demographics) is highly recommended.

Group A (Humanities) courses
### Group B (Social Sciences) courses

- **ANTB301H** Culture and Society in Africa
- **ANTB308H3** The Chinese Diaspora
- **ANTB309H3** Canadian Cultural Identities
- **ANTB310H3** Culture, Politics and Globalization
- **ANTB311H3** Peoples of the Middle East: An Introduction
- **ANTB345H3** The Anthropology of Food: Consuming Passions
- **ANTB351H3** An Introduction to Pacific Island Societies
- **ANTC306H3** African Cultures and Societies II: Case Studies
- **ANTC391H3** Families: Kinship and Marriage from a Cross-Cultural Perspective
- **ANTC391H3** Producing People and Things: Economics and Social Life
- **ANTC394H3** The Anthropology of Transnationalism
- **ANTC395H3** Muslim Societies
- **GGRB301H** Local Geographies of Globalization
- **GGRD301H** Health and Sexuality
- **GGRD302H** Spaces of Multica kularity: Critical Mixed Race Theory
- **IDSC301H** Media and Development
- **POLA313H** Leaving Home: Politics and Emigration
- **POLA313H** Exploring Globalization
- **POLA343H** Globalization and Governance
- **POLA381H** Comparative Development in International Perspective
- **POLC294H3** Globalization, Gender and Development
- **POLC260H3** State Formation and Authoritarianism in the Middle East
- **POLC391H3** Political Protest in the Middle East
- **SOC252H3** International Migration and Immigrant Incorporation
- **SOC351H3** Race and Ethnicity
- **SOC352H3** Ethnicity, Race and Migration
- **SOC353H3** Migrations & Transnationalism

### MINOR PROGRAM IN DIASPORA AND TRANSNATIONAL STUDIES (ARTS)

**Program Requirements**

Students must complete 4.0 full credits as follows:

1. **DTS1001H** Introduction to Diaspora and Transnational Studies I
2. **DTS1002H** Introduction to Diaspora and Transnational Studies II
3. 2.5 full credits from Group A and Group B courses (see the Major Program above) with at least 1.0 full credit from each group.

For UT courses, see [www.artsandscience.utoronto.ca/undergraduate/undergraduate/programs/index.php](http://www.artsandscience.utoronto.ca/undergraduate/undergraduate/programs/index.php)
At least 0.5 credits must be at the C-level or above.

3. Any two of:
   DTS401H Advanced Topics in Diaspora and Transnational Studies
   DTS402H Advanced Topics in Diaspora and Transnational Studies
   DTS403H Advanced Topics in Diaspora and Transnational Studies
   DTS404H Advanced Topics in Diaspora and Transnational Studies

*Students pursuing an DTS minor should contact the Center for Diaspora and Transnational Studies (CDTS@utoronto.ca) to be enrolled in these courses.

Note: In addition, while not required at this point in time, the Faculty of Arts & Science course QJR360H (The Canadian Census: Populations, Migrations and Demographics) is highly recommended.

**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 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 & DTSB02H3 be taken in the same academic year.
Exclusion: DTS200Y, DTS202H

**DTSB01H3 Advanced Topics in Diaspora and Transnationalism I: Postcolonialism and Diaspora**
Postcolonialism and Diaspora Studies to explore issues of place, memory, and identity. The course will be comparative and interdisciplinary with a focus on literature, anthropology, political science and cultural studies.
Prerequisite: DTSB01H3 & DTSB02H3. Students should take this course in their 4th year of study.
Exclusion: DTS401H
Enrollment Limit: 25

**DTSB02H3 Advanced Topics in Diaspora and Transnationalism II: Critical Approaches to Diaspora Studies**
Course critically examines theoretical and methodological approaches adopted by different disciplines to the subject of Diaspora and Transnational Studies. Classes will engage with community actors and organizations and will be comparative and interdisciplinary with a focus on literature, anthropology, political science and cultural studies.
Prerequisite: DTSB01H3 & DTSB02H3. Students should take this course in their 4th year of study.
Exclusion: DTS401H
Enrollment Limit: 25

This will be a course using the intersections between

Economics for Management Studies

Faculty List:
- M. Krashinsky, S.B. (McMaster), M.Phil., Ph.D. (Yale), Professor
- M. Campbell, B.Sc., M.A., Ph.D. (Toronto), 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
- L.C. Parker, B.A. (Manitoba), M.A. (Toronto), Ph.D. (Yale), Associate Professor
- J.D. Campbell, B.A. (Oxford), Ph.D. (Brown), Assistant Professor
- E. Dyson, B.A. (Carleton), M.A., Ph.D. (California), Assistant Professor
- A.M. Franco, B.A. (California), M.A., Ph.D. (Rochester), Assistant Professor
- M. Gonzalez-Navarro, B.A. (Brunel), M.A., Ph.D. (Princeton), Assistant Professor
- J.M.S. Au, B.A., M.A., Ph.D. (Simon Fraser), Senior Lecturer
- G.H. Cleveland, B.A. (Dalhousie), M.A., Ph.D. (Toronto), Senior Lecturer
- J. Parkinson, Hon B.A. (Western), M.A., Ph.D. (Toronto), Senior Lecturer
- A. Musaferi, B.A., M.A., Ph.D., Lecturer

Chair: M. Krashinsky

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. Thus, 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 these matters are also addressed in our courses.

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 Program in Economics for Management Studies (with a co-op option) as part of the B.B.A., or may either major or minor in economics as part of the B.A. degree. Finally, economics plays a significant role within the various programs leading to the B.B.A. Program.

Students wishing to pursue a graduate program in Economics will require some additional courses not offered at UTSC. As soon as possible, such students should consult with the Supervisor of Students in Economics at U of T Scarborough for advice on the courses that may be most helpful.

**Programs in Economics for Management Studies:**

Although a group of students are directly admitted from high school, students generally apply to enter a 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. **Specialist (Co-op) in Economics for Management Studies**: A Specialist Program in Economics in the context of a Management degree, and including Co-op work terms. This Program leads to a B.B.A. Described in detail below.

2. **Specialist in Economics for Management Studies**: A Specialist Program in Economics in the context of a Management degree. This Program leads to a B.B.A. Described in detail below.

3. **Major in Economics for Management Studies**: A Program of at least six full credits of Economics for Management Studies, with full credit in Mathematics and one in Humanities, English, or Philosophy. This is an arts program. (See the Degree section of this Calendar for information on B.A. and B.Sc. degrees.) Described in detail below.

   **Note:** Students may not be jointly enrolled in a program leading to a B.B.A. and in the Major Program in Economics for Management Studies.

4. **Minor in Economics for Management Studies**: A Program of four full credits of Economics for Management Studies. This is an arts program. (See the Degree section of this Calendar for information on B.A. and B.Sc. degrees.) Described in detail below.

   **Note:** Students may not be jointly enrolled in a program leading to a B.B.A. and in the Minor Program in Economics for Management Studies.

**Other Programs with a substantial component of Economics for Management Studies:**

5. **Specialist in Management (B.B.A.)**: A program emphasizing Management but including four full credits in Economics for Management Studies, leading to a B.B.A. Described in detail in the Management section of this Calendar.

6. **Specialist (Co-op) in Management (B.B.A.)**: Same as #5 above, but also includes Co-op work terms.

7. **Specialist or Major in International Development Studies or Major in Public Policy or Major in International Studies or Major in Health Studies** within which students may choose to include a significant component from Economics for Management Studies. Described in detail elsewhere in this Calendar.

**Admission to Programs in Economics for Management Studies and in Management**

1. **All students**, both those who have been directly admitted into the Department from high school (and who are guaranteed admission into programs in the Department) and those admitted into pre-program (therefore not guaranteed admission into programs in the Department) must formally apply to specific programs after four credits have been completed. Decisions are made on program admissions by the Supervisor of Studies only twice a year, in May and in August. These decisions are based on program requirements which students submit to the Registrar (see the Registration Guide which is provided by the Registrar). Students should have ten full credits or less when they seek admission to programs in the Department of Management. **Note** that enrollment in ECONMB003H, ECONMB005H, ECONMB101H, ECONMB102H, ECONMB103H, ECONMB104H, ECONMB105H & ECONMB106H & ECONMD101H & ECONMD102H will be strictly limited to students enrolled in Specialist or Major programs in the Department of Management and, where possible, other students who meet criteria of academic merit.

2. **Those students** directly admitted into the Department from high school are guaranteed entry into a program in the Department (only a limited number of students not directly admitted in Co-op programs will be accepted into Co-op programs after first year). Directly admitted students must maintain a CGPA of 2.0 or greater after completing eight credits in order to remain in these programs.

3. **Admission to the Minor Program in Economics for Management Studies is not limited.** All students who apply for this program will be admitted. However, students are warned that they are not guaranteed admission to B-level and C-level courses, and that they will be accommodated only after other program students have been admitted to these courses. Thus, many courses may be unavailable.

**Economics for Management Studies Courses with Limited Enrolment**

Students who have been admitted to Specialist and Major programs in the Department of Management are guaranteed access to enough courses in Economics for Management Studies to complete their programs. To protect that access, students must register early in the registration process. After a period in which program students are given priority, access to Economics for Management Studies courses will be allocated on the basis of academic merit. Students not formally admitted to a Specialist or Major program in the Department of Management will likely experience difficulty in gaining access to enough courses to complete an Economics for Management Studies program.
SPECIALIST CO-OPERATIVE PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (BACHELOR OF BUSINESS ADMINISTRATION)

Supervisor of Studies: TBA. E-mail: economics-supervisor-studies@uoste.uottawa.ca

The Specialist Co-operative program in Economics for Management Studies (B.B.A.) is a work-study program which combines academic studies in economics and management with work experience in public and private enterprises. This degree 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. For information on admission, work terms and curriculum requirements, please see the Co-operative Programs section and the Management section of this Calendar.

SPECIALIST PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (BACHELOR OF BUSINESS ADMINISTRATION)

Supervisor of Studies: TBA. Email: economics-supervisor-studies@uoste.uottawa.ca

This program will provide a specialization for those wishing for a substantial component of Economics in a Management degree leading to a Bachelor of Business Administration (B.B.A.). The students in this program may be seeking to prepare themselves for studies in Economics at the Masters’ level. For more details and curriculum requirements, please refer to the Management section of this Calendar.

The Co-operative Program option of this program is a work-study program which combines academic studies in economics and management with work experience in public and private enterprises. It 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. For information on admission, work terms, and curriculum requirements, please see the Co-operative Programs section and the Management section of this Calendar.

Program Admission

Note: Registration in this program is limited. If not directly admitted to the program from high school, students may apply to the program after first year. They must have completed a minimum of four credits at the University of Toronto with the required courses to be considered for this program. Required courses must include: ECMA0401, ECMA0601, MIGA0301, MIGA0401 & [MAT32H3 & MATA33H3] (or equivalent). Students will be considered on the basis of cumulative GPA. For more details please refer to the Management section of this Calendar.

Program Requirements

For specific program requirements, see the Management section of this Calendar.

Students should be aware that the Mathematics requirement implies that Grade 12 Calculus is a prerequisite for entry to this Program. Further, students who are considering graduate work in Economics should be aware that they should accumulate considerably more mathematics than the minimum required; they should consult the Supervisor of Studies in Economics for details.

Academic Assessment

Please refer to the Management section of this Calendar for rules on academic assessment for degrees leading to the B.B.A. All students pursuing a B.B.A. are assessed based on those rules.

Overall course load limit for B.B.A. students

Please refer to the Management section of this Calendar for rules on course load limits for B.B.A. students.

MAJOR PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (ARTBS)

Supervisor of Studies: TBA. Email: economics-supervisor-studies@uoste.uottawa.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.

Program Admission

Note: Registration in this Program is limited. Students must have completed a minimum of four full credits to be considered for this program. Required courses include: ECMA0401, ECMA0601, MIGA0301, MIGA0401. Decisions will be made on the basis of cumulative cPA. Students may apply until they have completed up to 10 full credits, and admission will be on the basis of all grades received. Students who have completed more than 10 full credits will not be considered for admission to the Program. Students should be aware that the Mathematics requirement implies that Grade 12 Calculus is a requirement for entry into this program.

Note: Students in the B.B.A. may not jointly enroll in the Major Program in Economics for Management Studies.

Program Requirements

The Program consists of six full credits in Economics for Management Studies, one full credit in Mathematics and one full credit in Humanities. The Economics courses must include:
ECMA0401 & ECMA0601
ECMB02H3 & ECMB06H3
[ECMB11H3 & ECMB12H3] or (ECMB09Y3)
ECMC02H3 & ECMC06H3
100 Economics for Management Studies

ECMC11H3
Plus 1.5 full credits chosen from the courses in Economics for Management Studies including at least one at the C-level (not including ECMC91H3, ECMC92H3, ECMC93H3).

Students must also complete MATA32H3 & MATA33H3 (or equivalent) and one full credit in Humanities.

Note: Students who take ECMA01H3 and ECMAS01H3 and then decide to apply for this program will be permitted to substitute [ECMA01H3 & ECMAS01H3] for [ECMA04H3 & ECMAS04H3]. However, these students will be required to complete [MATA32H3 & MATA33H3] (or equivalent) before registering for ECMB02H3 and ECMB03H3.

MINOR PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (ARTS)

Supervisor of Studies: TBA Email: economics-supervisor-studies@tute.toronto.ca

This program is designed to give exposure to the subject matter in some areas of Economics to students who will combine this 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.

Program Admission

Note: Registration in this program is not limited and does not require training in Calculus. Students will note that some of the B- and C-level courses in Economics for Management Studies do require Calculus. Therefore, students signed up for the Minor Program must choose their courses carefully, ensuring that they have the necessary prerequisites.

Note: Students in the B.B.A. may not jointly enrol in the Minor Program in Economics for Management Studies.

Program Requirements

The program consists of four full credits in Economics for Management Studies as follows:

ECMA01H3 or ECMAS01H3
ECMA04H3 or ECMAS04H3
ECMB01H3 or ECMB02H3
ECMB05H3 or ECMB04H3

Plus two more full credits in Economics for Management Studies, including at least one at the C-level.

Note: Students are warned that they are not guaranteed admission to all B-level and C-level courses. New C-level courses have been developed (ECMC91H3, ECMC92H3 & ECMC93H3) and will be available to students in the minor program. Future additions available to students in the minor program are anticipated.

Note: Students may if they wish, count STAB22H3, ANTC23H3, PSYB07H3 or SOC300H3 as a more advanced statistics course as one full credit B-level Economics course in the Minor Program in Economics for Management Studies. While not required, students are strongly encouraged to include a statistics course in the program.

ECMA01H3 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 Specialist in Management and Economics leading to the B.B.A. or for the Major program in Economics.

Exclusions: ECMA04H3, ECO100Y, ECO105Y

Breadth Requirement: Social & Behavioural Sciences

ECMA04H3 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.

Prerequisite: Grade 12 Calculus

Corequisite: It is strongly recommended that MATA32H3 & MATA33H3 be taken simultaneously with ECMA04H3 & ECMAS04H3 Exclusion: ECMA01H3, ECO100Y, ECO105Y

Breadth Requirement: Social & Behavioural Sciences

ECMA05H3 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. Nota: This course is not for students interested in applying to the Specialist in Management and Economics leading to the B.B.A. or for the Major program in Economics.

Exclusions: ECMA04H3, ECO100Y, ECO105Y

Breadth Requirement: Social & Behavioural Sciences

ECMA06H3 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.

Prerequisite: Grade 12 Calculus

Corequisite: It is strongly recommended that MATA32H3 & MATA33H3 be taken simultaneously with ECMA04H3 & ECMAS04H3

Exclusions: ECMA05H3, ECO100Y, ECO105Y

Breadth Requirement: Social & Behavioural Sciences
ECMB01H3 Price Theory
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. This course does not qualify as a credit for either the Major in Economics for Management Studies or for the B.B.A. 
Prerequisite: [ECMA04H3] & [ECMA06H3] or [ECMA01H3] & [ECMA08H3]
Exclusion: ECMB02H3, ECO200Y, ECO204Y, ECO206Y
Enrollment Limits: 120 per section
Breadth Requirement: Social & Behavioural Sciences

ECMB02H3 Price Theory: A Mathematical Approach
Intermediate level development of the principles of microeconomic theory. The course will cover the same topics as ECMB01H3, but will employ techniques involving calculus so as to make the theory clearer to students. Enrollment is limited to students registered in programs requiring this course. 
Prerequisite: ECMA04H3 & ECMA06H3 & [MAT22H3] & [MAT2A3H3] or [MAT2A7H3]; Students who have completed ECMA01H3 & ECMA08H3 & [MAT232H3] & [MAT2A3H3] or [MAT2A7H3] may be admitted with the permission of the Supervisor of Studies.
Exclusion: ECMB01H3, ECO200Y, ECO204Y, ECO206Y
Enrollment Limits: 80 per section
Breadth Requirement: Social & Behavioural Sciences

ECMB03H3 Macroeconomic Theory and Policy
Intermediate level development of the principles of macroeconomic theory. Topics covered include: theory of output, unemployment 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: [ECMA04H3] & [ECMA06H3] or [ECMA01H3] & [ECMA08H3]
Exclusion: ECMB006H3, ECO202Y, ECO209Y, ECO209Y
Enrollment Limits: 120 per section
Breadth Requirement: Social & Behavioural Sciences

ECMB04H3 Macroeconomic Theory and Policy: A Mathematical Approach
Intermediate level development of the principles of macroeconomic theory. The course will cover the same topics as ECMB03H3, but will employ techniques involving calculus so as to make the theory clearer to students. Enrollment is limited to students registered in programs requiring this course. 
Prerequisite: ECMA04H3 & ECMA06H3 & [MAT22H3] & [MAT2A3H3] or [MAT2A7H3]; Students who have completed ECMA01H3 & ECMA08H3 & [MAT232H3] & [MAT2A3H3] or [MAT2A7H3] may be admitted with the permission of the Supervisor of Studies.
Exclusion: ECMB006H3, ECO202Y, ECO209Y, ECO209Y
Enrollment Limits: 80 per section
Breadth Requirement: Social & Behavioural Sciences

ECMB11H3 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. Enrollment is limited to students registered in programs requiring this course. 
Prerequisite: ECMA04H3 & ECMA06H3 & [MAT2A3H3] & [MAT2A7H3] or [MAT2A2H3]; Students who have completed ECMA01H3 & ECMA08H3 & [MAT2A3H3] & [MAT2A7H3] or [MAT2A2H3] may be admitted with the permission of the Supervisor of Studies.
Exclusion: [ECMB09Y3], ANT2C3H3, ECO220Y, ECO222Y, PSYB07H3, SOC004H3, STAB22H3, STAB32H3, STAB35H3
Enrollment Limits: 120 per section
Breadth Requirement: Quantitative Reasoning

ECMB12H3 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. Enrollment is limited to students registered in programs requiring this course. 
Exclusion: STA101H3 is not equivalent to ECMB12H3
Enrollment Limits: 80 per section
Breadth Requirement: Quantitative Reasoning

ECMB35H3 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: [ECMA04H3] & [ECMA06H3] or [ECMA01H3] & [ECMA08H3]
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

ECMB36H3 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 assumptions behind and techniques used by CBA and how to apply these methods in practice. 
Prerequisite: [ECMA04H3] & [ECMA06H3] or [ECMA01H3] & [ECMA08H3]
Corequisite: ECMB101H3 or ECMB202H3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

ECMB88H3 Comparative Economic Systems
A research-oriented course focused on the application of general systems theory to comparative analysis of alternative economic systems, capitalism, socialists and others. Half of the course will focus on general theoretical systems models; the other half will empirically study Russia, China and other systems. 
Prerequisite: [ECMA04H3] & [ECMA06H3] or [ECMA01H3] & [ECMA08H3]
Corequisite: ECMB101H3 or ECMB202H3
Breadth Requirement: Social & Behavioural Sciences
ECM302H3 Topics in Price Theory
Continuing development of the principles of microeconomic theory. This course will build on the theory developed in ECM202H3. Topics will be chosen from a list which includes: monopoly, price discrimination, product differentiation, oligopoly, game theory, general equilibrium analysis, externality and public goods. Enrolment is limited to students registered in programs requiring this course.
Prerequisite: ECM202H3 & ([MAT23H3 & MAT23H3] or [MAT27H3])
Exclusion: ECM302H3, EC200Y1, EC204Y1, EC209Y1
Enrolment Limit: 80 per section
Breadth Requirement: Social & Behavioural Sciences

ECM306H3 Topics in Macroeconomic Theory
Continuing development of the principles of macroeconomic theory. The course will build on the theory developed in ECM206H3. 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: ECM206H3 & ([MAT23H3 & MAT23H3] or [MAT27H3])
Exclusion: EC202Y2, EC208Y1, EC209Y1
Enrolment Limit: 80 per section
Breadth Requirement: Social & Behavioural Sciences

ECM311H3 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: ECM112H3 & ECM112H3 or [ECMB11H3 & ECMB11H3]
Exclusion: ECM374H1, ECM375H1, (ECMB11H3)
ECM311H3 may not be taken after or concurrently with [STAC24H3 or STAC32Y1]
Enrolment Limit: 60
Breadth Requirement: Quantitative Reasoning

ECM320H3 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: ECM201H3 or ECM202H3
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

ECM327H3 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: [ECMB11H3 or ECM202H3] & [ECMB10H3 or ECM10H3]
Exclusion: EC202Y2, EC204Y1
Enrolment Limit: 60 per section
Breadth Requirement: Social & Behavioural Sciences

ECM331H3 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 proposals for tax design.
Prerequisite: ECM201H3 or ECM202H3
Exclusion: ECM211H3, EC204Y1
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

ECM332H3 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: ECM201H3 or ECM202H3
Exclusion: ECM211H3, EC204Y1
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

ECM334H3 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: ECM202H3 & ([MAT23H3 & MAT23H3] or [MAT27H3])
Exclusion: EC302H1, EC305H1
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

ECM337H3 Law and Economics
A study of laws and legal institutions from an economic perspective. Includes the development of a positive theory of the law suggesting that laws frequently evolve as ways to maximize economic efficiency. The efficiency of various legal principles is examined. Topics covered are drawn from: externalities, property rights, contracts, torts, product liability and consumer protection, and procedure.
Prerequisite: ECM201H3 or ECM202H3
Exclusion: EC202H1, EC204Y1
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

ECM288H3 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: [ECMB11H3 or ECM202H3] & [ECMB10H3] or
ECON051H3 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; unemployment. Pre-requisite: ECON02Y, ECON33Y, ECON36Y
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

ECON251H3 Labour Economics II
A continuation of ECON251H3. 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; migration. Pre-requisite: ECON251H3 & ECON202H & [ECON212H1 or ECON20Y]
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

ECON241H3 Economics of the Family
This course studies the economic aspects of how families make decisions - about employment, child care, having children. In particular, we study how women's decisions are affected by children and the need to care for them. We study how public policies affect the decisions of family members, and discuss how family policy can be improved. Pre-requisite: ECON202H
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

ECON255H3 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. Pre-requisite: ECON202H
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

ECON265H3 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 "verus" flexible exchange rates; international capital movements, and their implications for monetary policy. Pre-requisite: ECON205H3 or ECON265H
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

ECON362H4 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: ECMC3931 or ECOM3251
Enrollment Limit: 60
Breadth Requirements: Social & Behavioural Sciences

ECMC3933 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 Latin America in the 1990s, East Asia, Europe, Mexico and Russia in the 1990s, and Turkey and Argentina in recent years.
Prerequisite: ECMC5613
Enrollment Limit: 60
Breadth Requirements: Social & Behavioural Sciences

ECMC6683 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: ECOMB0131 or ECOMB0213
Exclusion: ECO324Y
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

ECMC6793 Development Policy
A consideration of how government policy can affect the poor and nature of development in Third World countries. Emphasis will be on the most important policies including those relating to rural organization, agricultural goods markets, labour markets, credit markets, land rights systems, income distribution and technological change.
Prerequisite: ECMC6683
Exclusion: ECO324Y
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

ECMC9813 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: ECOMB0131 or ECOMB0213 or ECOMB0313 or ECOMB0413
Exclusion: ECO324Y
Enrollment Limit: 60 per section
Breadth Requirement: History, Philosophy & Cultural Studies

ECMC9913 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.A. or the Major Program in Economics for Management Studies.
Prerequisite: ECOMB0131 or ECOMB0213
Exclusion: ECOMC3113, ECOMC3213, ECOMC3313
Breadth Requirement: Social & Behavioural Sciences

ECMC9313 Economics of Markets and Pricing
The course builds on ECOMB0131 (or ECOMB0213) 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.A. or the Major Program in Economics for Management Studies.
Prerequisite: ECOMB0131 or ECOMB0213
Exclusion: ECOMC2013, ECOMC4113, ECOMC202Y, ECOMC204Y, ECOMC206Y, ECOMC310Y
Breadth Requirement: Social & Behavioural Sciences

ECMC9313 International Economics
This course provides general understanding of the 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.A. or the Major Program in Economics for Management Studies.
Prerequisite: ECOMB0131 or ECOMB0213 & [ECMC3051 or ECOMB0513 or ECOMB0515]
Exclusion: ECMC2013, ECOMC202Y, ECOMC324Y
Breadth Requirement: Social & Behavioural Sciences

ECMC10113 Theory and Practice of Regression Analysis
This is an advanced course building on ECMC1113. 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 ECOMC5013.
Enrollment limited to 30 students registered in programs requiring this course.
Prerequisite: ECOMB0213 & ECOMB0313 & [ECMC1113 & ECOMB1213] or (ECMB099Y or ECMC1113)
Exclusion: ECOMC327Y, STA301L, ECMC1213
Enrollment Limit: 30
Breadth Requirement: Quantitative Reasoning
ECMD11H3
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.

ECMD13H3 Advanced Microeconomic Theory
An upper level extension of the ideas studied in ECON22H3. 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: [ECON22Y3] or ECONB12H3 & ECON22H3
Exclusion: ECON32H1 (ECONM11H3)
Enrolment Limit: 35
Breadth Requirement: Social & Behavioural Sciences

ECMD14H3 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: [ECON20Y3] or ECONB12H3 & ECONC06H3
Exclusion: ECON32H1 (ECONM14H3)
Enrolment Limit: 35
Breadth Requirement: Social & Behavioural Sciences

ECMD50H3 Workshop in Economic Research
This course introduces students to 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: [ECMB02H3 & ECMD20H3 or ECMB06H3 & ECMD06H3 & ECMB11H3 or ECMB12H3] or (ECMB09Y3) & ECMD11H3. This course should be taken among the last 5 credits of a twenty-credit degree.
Corequisite: ECMD12H3

ECMD70H3 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: [ECMD11H3 and (ECMD40H3 or MGTC09H3)]
Exclusion: ECO462
Enrolment Limit: 30
Breadth Requirement: Quantitative Reasoning

These courses may be counted as B-level credits in ECM programs. (See the Geography section of this Calendar for full descriptions.)
GGRC04H3 Urban Residential Geography
GGRC18H3 Urban Transportation Policy Analysis
GGRC27H3 Location and Spatial Development

These courses may count for B-level credit in ECM programs. (See the International Development Studies section of this Calendar for full descriptions.)
IDSS01H3 Political Economy of International Development
IDSC12H3 Economies of Small Enterprise and Micromerit

English

Faculty List
R.M. Brown, M.A., Ph.D. (Binghamton), Professor Emeritus
M.C. Cuddy-Kennedy, M.A., Ph.D. (Toronto), Professor
G. Leonard, M.A., Ph.D. (Florida), Professor
C. Bolus-Reichert, M.A., Ph.D. (Indiana), Associate Professor
N. Dohan, M.A., Ph.D. (Harvard), Associate Professor
A. Duflo, B.A. (Dalhousie), Ph.D. (Harvard), Associate Professor
M.B. Friedman, M.A. (Victoria), Ph.D. (Toronto), Associate Professor
N. Korteman, M.A., Ph.D. (Toronto), Associate Professor
S. Lamb, M.A., Ph.D. (Toronto), Associate Professor
K.R. Larson, M.P.H., M.Sc. (Oxford), Ph.D. (Toronto), Assistant Professor
A. Maurice, M.A., Ph.D. (Cambridge), Assistant Professor
A. Per, M.A. (Abraham), Ph.D. (Toronto), Assistant Professor
M. Rubright, A.B. (Vanier), M.A. (Missouri-Columbia), Ph.D. (Michigan), Assistant Professor
K. Vernon, B.A., M.A. (Simon Fraser), Ph.D. (Victoria), Assistant Professor
S.D. King, M.A., Ph.D. (Western), Senior Lecturer
M. Aulak, B.A. (Hassan II), M.A., Ph.D. (Case Western Reserve), Lecturer
D. Tysdal, B.A. (Regina), M.A. (Acadia), M.A. (Toronto), Lecturer

Program Director: C. Bolus-Reichert (416-287-7182)
The discipline of English involves not only the study of the great works of literature but also training in responding to the complex modes of interpretation and communication that are invaluable in our increasingly media-saturated world. At UTSC, the curriculum offers courses in the English-language literatures of Britain, Canada, America, and other areas of the world. All courses place emphasis on close responsive reading, critical thinking, and clarity of expression.
A-level courses introduce students to the study of English at the university level. ENGA10H3 and ENGA11H3 are designed both for students wanting an introductory course in the Specialist, Major, or Minor Program in English and for students having a general interest in literature or the twentieth century. ENGB03H3, ENGB04H3, and ENGB05H3 are required for all English Programs. B-level courses have no prerequisites and are available both to beginning and to more advanced students.

C-level courses, as their prerequisites indicate, are designed to build upon previous work and presuppose some background in critical skills and some familiarity with the subject matter.

D-level courses provide opportunities for more sophisticated study and require some independent work on the part of the student. These courses are generally restricted in enrollment and may involve the presentation of seminars. Students are advised to check the prerequisites for C- and D-level courses when planning their individual programs, and to consult the Supervisor or the Program Director before taking courses on other campuses. Students planning to pursue graduate studies in English are advised to consult the Program Supervisor about appropriate programs of study.

Guidelines for 1st year course selection

First-year students often take ENGA10H3 or ENGA11H3 (or both) as an introduction to university-level English studies. Students intending to complete the Specialist or Major Program in English should plan to take at least two of ENG080H3, ENG080H4 & ENG085H3 early in their university career. They may, if they so choose, begin satisfying these D-level English requirements in their first year. Students are strongly encouraged to take HUMA001H3 (Exploring Key Questions in Humanities) as early as possible in their studies.

Note: For Co-op opportunities related to the Specialist and Major Programs in English, please see the Humanities section of this Calendar.

SPECIALIST PROGRAM IN ENGLISH (ARTS)

Program Supervisor: C. Bolus-Reichert (416-287-7162) Email: english-program-supervisor@utoronto.ca

Program Requirements

12.0 credits in English are required of which at least 3.0 must be at the C-level and 1.5 at the D-level. They should be selected as follows:

1. ENGB03H3 Critical Thinking About Narrative
2. ENGB04H3 Critical Thinking About Poetry
3. ENGB05H3 Critical Writing about Literature
4. 3.0 credits from courses whose content is pre-1900
5. 0.5 credits in Canadian literature
6. 0.0 additional credits in English

Note: Students may count no more than one of the following courses towards the Specialist requirements:

ENG080H3 Children’s Literature
ENG080H4 Detective Fiction
ENG085H3 Science Fiction

Students may count no more than one full course of D-level independent study (ENG082H3, ENG082H4, ENG085H3, ENG086H3, ENG087H3, ENG089H3, ENG092H3, ENG099H3) towards an English program.

The following courses do not count towards any English programs: ENG100H, ENG185Y.

MAJOR PROGRAM IN ENGLISH (ARTS)

Program Supervisor: C. Bolus-Reichert (416-287-7162) Email: english-program-supervisor@utoronto.ca

Program Requirements

7.5 credits in English are required of which at least 2.0 must be at the C- or D-level. They should be selected as follows:

1. ENGB03H3 Critical Thinking About Narrative
2. ENGB04H3 Critical Thinking About Poetry
3. ENGB05H3 Critical Writing about Literature
4. 2.0 credits from courses whose content is pre-1900
5. 4.0 additional credits in English.

Note: Students may count no more than one of the following courses towards the Major requirements:

ENG080H3 Children’s Literature
ENG080H4 Detective Fiction
ENG085H3 Science Fiction

Students may count no more than one full course of D-level independent study (ENG082H3, ENG082H4, ENG085H3, ENG086H3, ENG087H3, ENG089H3, ENG092H3, ENG099H3) towards an English program.

The following courses do not count towards any English programs: ENG100H, ENG185Y.
MINOR PROGRAM IN ENGLISH LITERATURE (ARTS)
Program Supervisor: C. Bolius-Reichert (416-287-7162) Email: english-program-supervisor@utoronto.ca

Program Requirements
Four credits in English are required. They should be selected as follows:
1. ENG100H3 Critical Thinking About Narrative
2. ENG104H3 Critical Thinking About Poetry
3. ENG105H3 Critical Writing about Literature
4. 1.0 credits at the C-level
5. 1.5 additional credits in English.
Students may count no more than one full credit of D-level independent study (ENGD25Y3, ENG127H3, ENG128H3, ENG119H3, ENG199H3) towards an English program.
The following courses do not count towards any English programs: ENG100H3, ENG185Y.

MINOR PROGRAM IN LITERATURE AND FILM STUDIES (ARTS)
Program Supervisor: C. Bolius-Reichert. Email: english-program-supervisor@utoronto.ca

Program Requirements
4.0 full credits in English are required

Require 2.0 credits
ENG108H3 Introduction to Twentieth-Century Literature and Film: 1890 to World War II
or
ENG111H3 Introduction to Twentieth-Century Literature and Film: 1945 to Today
ENG109H3 Introduction to Cinema
ENG110H3 Cinema and Modernity I
or
ENG101H3 Cinema and Modernity II
ENG102H3 The Body in Modernity: Theories and Representations
or
ENG107H3 The Body in Contemporary Culture: Theories and Representations

Require 2.0 additional C and D level courses
ENG123H3 Literature and Media: From Page to Screen
ENG122H3 Cinema Studies: Themes and Theories
ENG121H3 Studies in World Cinema
ENG120H3 Cinema: The Author Theory
ENG126H3 Topics in Postcolonial Literature and Film
ENG270H3 Avant-Garde Cinema
ENG128H3 Theoretical Approaches to Cinema
ENG129H3 Stranger Than Fiction: The Documentary Film

Please note: film courses selected from other departments and disciplines will be approved for the minor in Cinema Studies on a case by case basis.

ENG103H3 Introduction to Twentieth-Century Literature and Film: 1890 to World War II
An exploration of how literature reflects the artistic and cultural concerns that shaped the first part of the twentieth century. An introduction to university-level critical reading and interpretation, this course will analyze the writing of early twentieth-century men and women.
Exclusion: ENG140Y
Breadth Requirement: Arts, Literature & Language

ENG103H3 Critical Thinking About Narrative
An introduction to the literary analysis of narrative. This course will study closely a small number of narratives and narrative genres from different periods in order to develop the critical skills to analyze narratives.
Exclusion: ENG110Y
Breadth Requirement: Arts, Literature & Language

ENG104H3 Critical Thinking About Poetry
An introduction to the literary analysis of poetry. This course will study closely poems and poetic forms from different periods in order to develop the critical skills to analyse poetry.
Exclusion: ENG201Y
Breadth Requirement: Arts, Literature & Language

ENG105H3 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
ENGB080H3 Canadian Literature I: Imagining the Nation
An examination of large issues and themes that have shaped Canadian literature. Focusing on the development and emergence of a Canadian literary tradition, this course examines the problems of writing in a New World nation, the emergence and definition of an indigenous tradition, and the challenges such a tradition faces. Exclusion: ENG252Y
Breadth Requirement: Arts, Literature & Language

ENGB079H3 Canadian Literature II: Re-Imagining the Nation
An examination of the formation of identity, of a sense of belonging, and of the problems of nationalism in Canadian writing. Exclusion: ENG252Y
Breadth Requirement: Arts, Literature & Language

ENGB081H3 American Literature to 1860
An introductory survey of 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 Requirement: Arts, Literature & Language

ENGB080H3 American Literature from the Civil War to the Present
An introductory survey of major novels, short fiction, poetry, and drama. An introductory survey of major novels, short fiction, poetry, and drama from The Adventures of Huckleberry Finn to Raisa Dike's Thomas and Beulah, with an emphasis on themes of immigration, ethnicity, modernization, individualism, class, and community. Prerequisite: ENG808H3 Exclusion: ENG250Y
Breadth Requirement: Arts, Literature & Language

ENGB123H1 Life Writing
Life writing, whether formal biography, chatty memoir, postmodern treatise, 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 Requirement: Arts, Literature & Language

ENGB141H3 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 dramas 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: ENG340H1, ENG341H1, ENG342H1, (ENG81H3), (ENG81H3), (ENG83H3), (ENG83H3), (ENG83H3)
Breadth Requirement: Arts, Literatures & Languages

ENGB170H3 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: ENG250Y, ENG223Y, (ENG225Y)
Breadth Requirement: Arts, Literature & Language

ENGB193H3 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 making the novel South Asian. Exclusion: ENG250Y, (ENG255Y)
Breadth Requirement: Arts, Literature & Language

ENGB258H3 The Canadian Short Story
A study of the Canadian short story. The Canadian short story has been vital to the Canadian literary tradition and has produced writers of international stature, including Munro, Atwood, Larousse, and Gallant. Exclusion: ENG215H
Breadth Requirement: Arts, Literature & Language

ENGB303H3 Classical Myth and Literature
An analysis of the relationship between classical myth and literature. This course examines classical Greek and Roman myth in relation to English literary works. Pre-1900 course Exclusion: ENG581H3, (ENG569H3), (ENG569H3)
Breadth Requirement: Arts, Literature & Language

ENGB313H3 The Romance: In Quest of the Marvelous
A study of the romance as genre. The romance as episodic tale of marvelous adventures and questing heroes has 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: ENG83H3
Breadth Requirement: Arts, Literature & Language

ENGB323H3 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
ENG859H3 Women and Literature: Forging a Tradition
An examination of the development of a woman's tradition of writing. This course considers the legacy and impact of writers such as Mary Wollstonecraft, Mary Shelley, Jane Austen, Charlotte Bronte and Virginia Woolf.
Pre-1900 course
Exclusion: ENG233Y
Breadth Requirement: Arts, Literature & Language

ENG513H1 Shakespeare in Context II
A continuation of ENG312H1, 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: ENG101H, ENG220Y
Recommended Preparation: ENG321H3
Breadth Requirement: Arts, Literature & Language

ENG324H3 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: ENG213H1
Breadth Requirement: Arts, Literature & Language

ENG359H3 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 nationalism.
Exclusion: ENG234H1
Breadth Requirement: Arts, Literature & Language

ENG373H3 Selling Pleasure: 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; "cheese fiction"; popular song; pulp fiction and fanzines.
Breadth Requirement: Arts, Literature & Language

ENG389H3 The Graphic Novel
A study of extended narratives in the comic book form. Emphasis on formal analysis of narrative artwork combined 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: ENQ235H, ENQC57H3
Breadth Requirement: Arts, Literature & Language

ENG491H3 Victorian Poetry and Prose
An introduction to the poetry and non-fiction prose of the Victorian period, 1837-1901. Representative authors will be studied in the context of culture in transition, in which questions about democracy, the rights of women, national identity, imperialism, science and religion, and the place of the arts in everyday life were prominent.
Pre-1900 course
Exclusion: ENG347Y, ENG298H1, ENG312Y
Breadth Requirement: Arts, Literature & Language

ENG589H3 Creative Writing: Poetry I
An introduction to the writing of poetry. This course will provide an introduction to the writing of poetry through workshop sessions. Admission by portfolio. Portfolios for students seeking admission should be left with the Humanities departmental assistant at H431 no later than the first Tuesday of August. They should contain a selected sample (5-15 pp) of your strongest writing, which could include fiction, poems or essays. Do not include originals.
Exclusion: ENG369Y, Enrolment Limit: 20
Breadth Requirement: Arts, Literature & Language

ENG849H3 Creative Writing: Fiction I
An introduction to the writing of fiction. This course will provide an introduction to the writing of short fiction through workshop sessions. Admission by portfolio. Portfolios for students seeking admission should be left with the Humanities departmental assistant at H431 no later than the first Monday of October. They should contain a selected sample (5-15 pp) of your strongest writing, which could include fiction, poems or essays. Do not include originals.
Exclusion: ENG369Y, Enrolment Limit: 20
Breadth Requirement: Arts, Literature & Language

ENG879H3 Introduction to Cinema
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: IN111Y
Breadth Requirement: Arts, Literature & Language

ENG879H3 Cinema & Modernity I
An investigation of film genres such as melodrama, film noir, and the western from 1895 to the present. We will look at the creation of an ideological space and of new mythologies that helped organize the experience of modern life. Works of twentieth-century prose and poetry will also be studied.
Breadth Requirement: Arts, Literature & Language

ENG879H3 Cinema & Modernity II
An investigation of film genres such as romance, gothic, and science fiction from 1895 to the present. We will look at the way cinema developed and created new mythologies that helped people organize the experience of modern life. Works of twentieth-century prose and poetry will also be studied.
Exclusion: ENG386H1
Breadth Requirement: Arts, Literature & Language
ENGCS2H3 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. Prerequisite: [ENGBOH3H & ENGBOH4H & one of ENGBO5H3H or ENGBO5H1H] or [ENGBO6H3H or ENGBO7H3H]
Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENGCS3H3 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 problematic of representation for marginalized societies, groups, and identities. Prerequisite: [ENGBOH3H & ENGBOH4H & one of ENGBO5H3H or ENGBO5H1H] or [ENGBO6H3H or ENGBO7H3H]
Exclusion: ENGCD3YH, ENG216YH
Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENG07H3 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: [ENGBOH3H & ENGBOH4H & one of ENGBO5H3H or (ENGBO6H5H or (ENGBO6H2H) or ENGBO6H3H or ENGBO8H1H]
Alternative prerequisite: [VPDB1H1H or VPDB1H2H]
Exclusion: ENGCS2H3, ENG223H3
Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENG09H3 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 focuses 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: [ENGBOH3H & ENGBOH4H & one of ENGBO6H3H or (ENGBO6H5H or (ENGBO6H2H) or ENGBO6H3H or ENGBO8H1H]
Exclusion: ENGCS4YH Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENG10H3 Studies in Shakespeare
A study of the plays of Shakespeare. An in-depth study of select plays from Shakespeare’s dramatic corpus contrasted 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: [ENGBOH3H & ENGBOH4H & one of ENGBO5H3H or (ENGBO6H1H) or (ENGBO6H3H)]
Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENG12H3 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: [ENGBOH3H & ENGBOH4H & one of ENGBO5H1H or (ENGBO6H3H or (ENGBO6H2H)] or [ENGBO6H3H & ENGBO8H1H]
Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENG13H3 Ethnic Traditions in American Literature
A survey of the literature of Native Peoples, Africans, Irish, Jews, Italians, Latinos, 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 effective costs of the transition from "old-world" communitarian to "new-world" individualism. Prerequisite: [ENGBOH3H & ENGBOH4H & one of ENGBO5H3H or (ENGBO6H1H) or (ENGBO6H3H)] or [ENGBO6H3H & ENGBO8H1H]
Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENG15H3 Concepts in Literary Criticism
A study of selected topics in literary criticism. Prerequisite: [ENGBOH3H & ENGBOH4H & one of ENGBO5H3H or (ENGBO6H1H) or (ENGBO6H3H)]
Exclusion: ENG220H, ENG226H1H
Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENG16H3 The Bible and Literature I
Literary analysis of the Hebrew Bible (Christian Old Testament) and its profound influence on literature. This course considers both the literary nature of and the influence on literature of such narratives as the fall of Adam and Eve, Noah's flood, Abraham's binding of Isaac, and the story of Moses. The Song of Solomon, Job, Jonah, Jeremiah. Pre-1900 course Prerequisite: [ENGBOH3H & ENGBOH4H & one of ENGBO5H3H or (ENGBO6H1H) or (ENGBO6H3H)]
Exclusion: [ENGBO4H3H, ENG200Y]
Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENG17H3 The Bible and Literature II
Literary analysis of the narratives and other literary forms in the New Testament, and extended consideration of selected literary texts that the New Testament has influenced. Pre-1900 course Prerequisite: [ENGBOH3H or (ENGBO4H3H)]
Exclusion: [ENGBO4H3H, ENG200Y]
Enrolment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENG21H3 The Victorian Novel to 1860
A study of major works of Victorian fiction, 1830-1860. This course focuses on the development of the novel form in its social context. Authors studied might include Charles Dickens, William Makepeace Thackeray, the Bronte sisters, Anthony Trollope and Elizabeth Gaskell. Pre-1900 course.
Prerequisite: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or (ENGB01H3 or ENGB02H3)]
Exclusion: ENG22AY, ENG22SH
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

**ENG22H3 The Victorian Novel after 1860**
A study of major works of Victorian fiction, 1860-1901. This course examines the emergence of the sensation novel, fantasy and science fiction, and high Victorian realism. Authors studied might include George Eliot, Wilkie Collins, George MacDonald, Thackeray, Robert Louis Stevenson, H.G. Wells, Joseph Conrad, or Rudyard Kipling. Pre-1900 course
Prerequisite: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or (ENGB01H3 or (ENGB02H3))]
Exclusion: ENG224Y
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

**ENG23H3 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: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or (ENGB01H3 or (ENGB02H3))]
Exclusion: ENG239H1
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

**ENG26H3 Drama: Tragedy**
An exploration of major dramatic tragedies in the classic and English traditions. Tragedy has been thought of as one of the earliest and most profound literary forms, having ritual and philosophical implications and inspiring theoretical treatments beginning with Aristotle’s Poetics. Pre-1900 course
Prerequisite: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or (ENGB01H3 or (ENGB02H3))]
Alternative pre/co-requisites: VPDH119H1 & VPDH118H1
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

**ENG27H3 Drama: Comedy**
An historical exploration of comedy as a major form of dramatic expression. Theatrical comedy has been thought of as having social as well as literary dimensions (bawdy, risqué, providing carnivalesque escape; mocking folly). Pre-1900 course
Prerequisite: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or (ENGB01H3 or (ENGB02H3))]
Alternative pre/co-requisites: VPDH118H1 & VPDH119H1
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

**ENG28H3 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: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or (ENGB01H3 or (ENGB02H3))]
Exclusion: ENG300Y
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

**ENG29H3 Studies in Medieval Literature**
A study of selected medieval texts by one or more authors. Pre-1900 course
Prerequisite: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or (ENGB01H3 or (ENGB02H3))]
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

**ENG33H3 Decoy, 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 innovatory 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: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or (ENGB01H3 or (ENGB02H3))]
Exclusion: ENG334Y
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

**ENG34H3 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: ENGB03H3 or (ENGB03H3 & ENGB04H3) & one of ENGB05H3 or (ENGB01H3 or (ENGB02H3))
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

**ENG35H3 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, poetry, travel journals, autobiography, letters, cookbook, costume books, and maps. Pre-1900 course
Prerequisite: ENGB03H3 & ENGB04H3 & [one of ENGB05H3 or (ENGB01H3 or (ENGB02H3))]
Recommended Preparation: [ENG232H3 or ENGB09H2] & [ENG301H3 or (ENG323H3) or ENG333H3]
Enrolment Limit: 50
Breadth Requirement: 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-1990 course
Prerequisite: ENGBOH3H3 & ENGBOH4H3 & [one of ENGBOH5H3 or (ENGBOH1H3 or ENGBOH1H3)]
Exclusion: ENGB0H5H
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC37H4 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 conscious national culture, and birth of the concepts of high, middle, and low cultures. Authors may include Johnson, Boswell, Burney, Sheridan, Yearley, Blake, and Wordsworth.
Pre-1990 course
Prerequisite: ENGBOH3H3 & ENGBOH4H3 & [one of ENGBOH5H3 or (ENGBOH1H3 or ENGBOH1H3)]
Enrolment Limit: 50
Breadth Requirement: 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-1990 course
Prerequisite: ENGBOH3H3 & ENGBOH4H3 & [one of ENGBOH5H3 or (ENGBOH1H3 or (ENGBOH1H3))]
Exclusion: ENGB0H2Y
Enrolment Limit: 50
Breadth Requirement: 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 the context of its readers; of neighbouring genres such as letters, non-fiction travel writing, conduct manuals; and of culture more generically. Authors might include Richardson, Fielding, Sterne, Burney, Austen and others.
Pre-1990 course
Prerequisite: ENGBOH3H3 & ENGBOH4H3 & [one of ENGBOH5H3 or (ENGBOH1H3 or (ENGBOH1H3))]
Exclusion: ENGB0H2Y
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC42H3 Romanticism
A study of the Romantic Movement in European literature, 1750-1830. 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, F. B. Shelley, Keats, Byron and M. Shelley will be combined with the study of the philosophical and historical backgrounds of Romanticism.
Pre-1990 course
Prerequisite: ENGBOH3H3 & ENGBOH4H3 & [one of ENGBOH5H3 or (ENGBOH1H3 or (ENGBOH1H3))]
Exclusion: ENGB0H5Y
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC44H3 Self and Other: Diatribes in Fiction
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, with cultural and national others.
Exclusion: ENGBOH3H3 & ENGBOH4H3 & [one of ENGBOH5H3 or (ENGBOH1H3 or (ENGBOH1H3))]
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC47H3 Modern 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.
Pre-1990 course
Prerequisite: ENGBOH3H3 & ENGBOH4H3 & [one of ENGBOH5H3 or (ENGBOH1H3 or (ENGBOH1H3))]
Exclusion: ENGB0H3T
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC48H3 Satire
An investigation of the literatures and theories of the unlikable, the reformist, the scathing, and the provocative. Satires can be conservative or subversive, corrective or anarchic; this course will address a range of satire and its theories. Writers may range from Juvenal, Horace, Laclos, Esquimeaux, Donne, Jonson, Rochester, Dryden, Swift, Pope, Gay, Haywood, and Behn to Purcell, Nostro and Aitwood.
Pre-1990 course
Prerequisite: ENGBOH3H3 & ENGBOH4H3 & [one of ENGBOH5H3 or (ENGBOH1H3 or (ENGBOH1H3))]
Exclusion: ENGB0H3T
Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC58H3 Studies in Contemporary American Fiction
Developments in American fiction from the end of the 1950s to the present. A study of fiction from 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. The course may be organized around themes or movements.
Pre-1990 course
Prerequisite: ENGBOH3H3 & ENGBOH4H3 & [one of ENGBOH5H3 or (ENGBOH1H3 or (ENGBOH1H3)) or (ENGBOH5H3 or (ENGBOH1H3 or (ENGBOH1H3))]
Exclusion: ENGB0H3H, ENGBOH2H
Enrolment Limit: 50
Breadth Requirement: 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; therefore, issues of gender, religion, class, nationalism, and colonialism will be examined from Arab women’s perspectives, from both the Arab world and North America.
Prerequisite: ENGB003H3 & ENGB040H3 & [one of ENGB051H3 or (ENGB011H3) or (ENGB021H3)] Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC56H3 Literature and Media: From Page to Screen
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 sequilization).
Prerequisite: ENGB031H3 & ENGB041H3 & [one of ENGB051H3 or (ENGB011H3) or (ENGB021H3)] Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC58H3 Geography and Regionalism in Literature
Analysis of space and place in literature. This course studies representations of space in literature—whether geographical, regional, or topographical—that offer conceptual alternatives to the nation, state, or tribe. Geographical or regional focus may change depending on instructor.
Prerequisite: ENGB013H3 & ENGB043H3 & [one of ENGB051H3 or (ENGB011H3) or (ENGB021H3)] Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGB68H3 Gothic Literature
A study of the Gothic tradition in literature since 1760. "Gothic" is a dark style in the arts, a language of terror, recognizable by allusions to remote castles, graves, graveyards, sublime landscapes, religious superstition, and plots involving imprisonment and torture, nightmarish of the unconscious mind, and monstrous deformities of the human body.
Pre-1900 course
Prerequisite: ENGB031H3 & ENGB040H3 & [one of ENGB051H3 or (ENGB011H3) or (ENGB021H3)] Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC70H3 The Immigrant Experience in Literature Since 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: ENGB013H3 & ENGB043H3 & [one of ENGB051H3 or (ENGB011H3) or (ENGB021H3)] Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC70H3 The Immigrant Experience in Literature Since 1980
A continuation of ENGC70H3, focusing on texts written since 1980.
Prerequisite: ENGB013H3 & ENGB040H3 & [one of ENGB061H3 or (ENGB011H3) or (ENGB021H3)] & ENGC70H3 Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC73H3 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.
Prerequisite: ENGB031H3 & ENGB043H3 & [one of ENGB051H3 or (ENGB011H3) or (ENGB021H3)] or AFS010H1 Exclusion: ENG275Y Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC73H3 Rap Poetics
An intensive study of form and rhetoric in rap lyrics. We will consider the quarter-century recorded history of this sub-set of African-American poetry in rough chronological order. We will also look for the pre-history of rap in such traditions as minstrelsy, blum, political speech, comic monologues, and lyric poetry proper.
Prerequisite: ENGB013H3 & ENGB040H3 & [one of ENGB051H3 or (ENGB011H3) or (ENGB021H3)] Exclusion: ENG63H3 Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

ENGC73H3 The Body in Modernity: Theories and Representations
An interdisciplinary course about the body in art, film, photography, narrative and popular culture. How bodies are written or visualized as "feminine" or "masculine," as icons, as representing normality or perversion, beauty or monstrosity, legitimacy or illegitimacy, nature or culture. Same as VPAC47H3
Corequisite: Two full credits at the B-level or above from ENG, WST, VPA, VPH, and/or VPS, or permission of the instructor. Exclusion: VPAC47H3, (VPAC47H3) Enrolment Limit: 45
Breadth Requirement: Arts, Literature & Language

ENGC73H3 The Body in Contemporary Culture: Theories and Representations
A course focusing on the experience of the body in the public spaces of the modern city and in cyberspace. Of special interest will be the viewpoints of artists, writers, and filmmakers who explore how the "other" is constructed in terms of class, culture, and ethnicity.
Same as VPAC49H1
Corequisite: Two full credits at the B-level or above from ENG, WST, VPA, VPH, and/or VPS, or permission of the instructor. Exclusion: VPAC49H3, (VPAC49H3) Bredth Requirement: Arts, Literature & Language

ENGC78H3 Dystopian Visions in Fiction and Film
Negative utopias and post-apocalyptic worlds. The course will draw from novels such as 1984, Brave New World, Clockwork Orange, and Oryx and Crake, and films such as Memento, Mad Max, Brazil, and The Matrix. Why do we find
stories about the world gone wrong so compelling?
Prerequisite: ENGB09H3 & ENGB01H3 & (one of ENGB02H3 or ENGB08H3 or ENGB07H3)
Enrollment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENGC89H3 Modernist Narrative, 1900-1950
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: ENGB08H3 & ENGB09H3 & (one of ENGB01H3 or ENGB08H3 or ENGB07H3)
Enrollment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENGC89H3 Cinema Studies: Themes and Theories
A variable theme course that will feature different theoretical approaches to Cinema: feminist, Marxist, psychoanalytic, postcolonial, and narratological. Thematic clusters include " Madness in Cinema", and "Films on Film.
Prerequisite: ENGB09H3 & ENGB01H3 & (one of ENGB05H3 or ENGB08H3 or ENGB02H3)
Enrollment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENGC89H3 Studies in World Cinema
Organizes a series of films that are non-Western: African, Asian, Middle Eastern and analyzes them both on their own terms and against the backdrop of issues of colonialism and globalization.
Prerequisite: ENGB09H3 & ENGB01H3 & (one of ENGB05H3 or ENGB08H3 or ENGB02H3)
Enrollment Limits: 50
Breadth Requirement: Arts, Literature & Language

ENGB89H3 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 classroom and workshop sessions. Admission by portfolio. Portfolios should be left with the Humanities departmental assistant in H43L no later than the first Tuesday of August. They should contain a selected sample (5-15 pp.) of your strongest writing, which must include poetry and may include fiction. Do not include originals.
Prerequisite: ENGB09H3 Enrollment Limits: 20
Breadth Requirement: Arts, Literature & Language

ENGB89H3 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 classroom and workshop sessions. Admission by portfolio. Portfolios should be left with the Humanities departmental assistant in H43L no later than the first Monday of October. They should contain a selected sample (5-15 pp.) of your strongest writing, which must include fiction and may include poetry. Do not include originals.
Prerequisite: ENGB01H3 Enrollment Limits: 20
Breadth Requirement: Arts, Literature & Language

ENGB89H3 Topics in Contemporary Literary Theory
A study of selected topics in recent literary theory.
Prerequisite: 2 C-level courses in English
Recommended Preparation: ENGC10H3
Enrollment Limits: 22

ENGB89H3 Studies in Postmodern Poetry
The study of a poet or poets writing in English after 1950. Topics may include the use and abuse of traditions, 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
Enrollment Limits: 22
Breadth Requirement: Arts, Literature & Language

ENGB89H3 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 & ENGC72H3]
Enrollment Limits: 22
Breadth Requirement: Arts, Literature & Language

ENGB89H3 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-1960 course depending on the topic.
Prerequisite: 2 C-level courses in English
Enrollment Limits: 22

ENGB89H3 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: 2 C-level courses in English
Enrollment Limits: 22

ENGB89H3 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 may 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
Enrollment Limits: 22

ENGB89H3 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: 2 C-level courses in English
Enrollment Limits: 22
Breadth Requirement: Arts, Literature & Language

ENGB89H3 Independent Studies: Creative Writing
Advanced study of creative writing for students who have
ENGL39H 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
Enrollment Limit: 22

ENGL42H 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
Enrollment Limit: 22
Breadth Requirement: Arts, Literature & Language

ENGL43H 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: ENGL42H
Enrollment Limit: 22

ENGL45H 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: 2 C-level courses in English
Enrollment Limit: 22
Breadth Requirement: Arts, Literature & Language

ENGL52H Cinema: The Author Theory
An exploration of the genesis of author theory. By focusing on a particular director such as Jean Campion, Kubrick, John Ford, Cronenberg, Chaplin, Eloyan, Bergman, Godard, Kramarsky, 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: IN137, IN137H
Enrollment Limit: 22
Breadth Requirement: Arts, Literature & Language

ENGL57H3 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: (ENGL51H3), (ENGL68H3)
Enrollment Limit: 22

ENGL56H3 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; a particular city or region.
Prerequisite: 2 C-level courses in English
Exclusion: (ENGL51H3), (ENGL68H3)
Enrollment Limit: 22

ENGL58H3 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: ENGL38H3 or ENGL39H3
Enrollment Limit: 22

ENGL68H3 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: IN137 or IN137H
Enrollment Limit: 22

ENGL69H3 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
Enrollment Limit: 22

ENGL68H3 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
Enrollment Limit: 22

ENGL71H3 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 realist fiction.
Prerequisite: 2 C-level courses in English
Enrollment Limit: 22
Breadth Requirement: Arts, Literature & Language
ENGD0403 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
Enrolment Limit: 22
Breadth Requirement: Arts, Literature & Language

ENGD0404 Canadian Writing for the New 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: 2 C-level courses in English
Enrolment Limit: 22
Breadth Requirement: Arts, Literature & Language

ENGD0893 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: 2 C-level courses in English
Exclusion: ENG441Y
Enrolment Limit: 22
Breadth Requirement: Arts, Literature & Language

ENGD0913 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: ENG132Y
Enrolment Limit: 22
Breadth Requirement: Arts, Literature & Language

ENGD0930 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: ENG141Y
Enrolment Limit: 22
Breadth Requirement: Arts, Literature & Language

Environmental Science
Faculty List
B. Greenwood, B.Sc., Ph.D. (Bristol), Ph.D. (Hons. Caixa, Uppsala), Professor Emeritus
A.G. Price, B.Sc. (Wales), M.Sc., Ph.D. (McGill), Associate Professor Emeritus
J.A. Worsgate, B.Sc. (Reading), Ph.D. (Alberta), Professor Emeritus
D.D. Williams, B.Sc. (North Wales), Dip. Ed. (Liverpool), M.Sc., Ph.D. (Wolverham), D.Sc. (Wolverham), Professor Emeritus
N. Eyles, B.Sc. (Leicester), M.Sc. (Memorial University Newfoundland), Ph.D. (East Anglia), D.Sc. (Leicester), P. Geol., Professor

ENGD0493 Stronger 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 tension between reality and representation, art and politics, technology and narrative, film and audience.
Prerequisite: 2 courses at the C-level in English
Exclusion: ENG325Y
Enrolment Limit: 22
Breadth Requirement: Arts, Literature & Language

ENGD0973 ENG0973 Independent Studies in Literature
An opportunity for students to pursue one- or two-credit projects of independent literary study under the supervision of a member of the English faculty. Students should discuss their interests in this opportunity with appropriate faculty and the Program Director or Program Supervisor one term in advance of the proposed course and complete an application form (available from the Department of Humanities office 843). This course is contingent on acceptance by a faculty supervisor and the approval of the English group. These courses are open only to students with a strong record (3.3 GPA or above in English courses) who are completing the last 5 courses of their degree and who have completed 2 full credits in C-level English. Depending on the subject area, this course can be counted towards the pre-1900 requirement.
Note: Students may count no more than 1.0 full credit of D-level independent study toward an English program.
Prerequisite: 2 C-level courses in English

ENGD0983 Senior Essay
A scholarly project chosen by the student and supervised by a faculty member in English. Students should discuss their proposals with appropriate faculty and the Program Director or Program Supervisor of English one term in advance of the proposed course and complete an application form (available from the Department of Humanities office 843). This course is contingent on acceptance by a faculty supervisor and the approval of the English group. The course is open only to students with a strong record (3.3 GPA or above in English courses) who are completing the last 3 courses of their degree and who have completed 2 full credits in C-level English. Depending on the subject area, this course can be counted towards the pre-1900 requirement.
Note: Students may count no more than 1.0 full credit of D-level independent study towards an English program.
Prerequisite: 2 C-level courses in English
Exclusion: ENG491Y
Human activity is a major cause of environmental change. 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, extraction 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.

The following programs in Environmental Science are available at UTSC:

- Four Specialist Programs (Environmental Biology, Environmental Chemistry, Environmental Geoscience and Environmental Physics)
- A Major Program in Environmental Science
- A Minor Program in Environmental Science
- In addition a Joint Specialist Program in Environmental Science and Technology is offered in collaboration with the School of Engineering Technology and Applied Science of Centennial College. (For more information see the Environmental Science and Technology section of this Calendar.)

The overall purpose of the various 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.

The Specialist Programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience and Environmental Physics and the Major Program in Environmental Science are eligible for inclusion in the Co-operative Program in Physical Sciences. Please refer to the Physical Sciences and the Co-operative Program sections of this Calendar for further details.

Science Engagement Courses

For science experiential learning through community outreach, classroom in-reach and team research, please see the Science Engagement section of this Calendar.

SPECIALIST PROGRAM IN ENVIRONMENTAL BIOLOGY (SCIENCE)

Supervisor of Studies: M. Isaac (416-287-7276) Email: manuel.issac@utoronto.ca

Program Requirements

Total requirements: 14.5 full credits

First Year:

- EESAA01H3 Introduction to Environmental Science
- EESAA01D1 Introduction to Planet Earth
- BIOA09H3 Life on Earth: Unifying Principles
- BHSAA2H3 Life on Earth: Form, Function and Interactions
- CHMA10H3 Introductory Chemistry I: Structure and Bonding
- CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
- MATA35H3 Calculus II for Biological and Physical Sciences
- [MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences]
- [PHYA10H3 Introduction to Physics IA or PHYA11H3 Introduction to Physics IB]
Second Year:
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
BIOB52H3 Ecology and Evolutionary Biology Laboratory
EESB15H3 Earth History
EESB16H3 Feeding Humans - The Cost to the Planet
STAT22B3 Statistics I
[PSCI27H3 Introduction to Scientific Computing or CSCA08H3 Introduction to Computer Programming]
and
1.0 full credit from the following:
EESB20H3 Principles of Climatology
EESB24H3 Principles of Hydrology
EESB25H3 Principles of Soil Science
CHMB53H3 Environmental Chemistry

Third and Fourth Years:
2.5 credits from:
EESC03H3 Geographic Information Systems and Remote Sensing
EESC04H3 Biodiversity and Biogeography
EESC05H3 Microbial Biogeochemistry
EESC13H3 Environmental Impact Assessment and Auditing
EESC15H3 Research in Environmental Science
2.0 credits from:
BIOC31H3 Tropical Biodiversity Field Course
BIOC52H3 Ecology Field Course
BIOC58H3 Biological Consequences of Global Change
BIOC59H3 Advanced Population Ecology
BIOC61H3 Community Ecology and Environment Biology
BIOC62H3 Environmental Toxicology
BIOC62H3 The Role of Zoos in Conservation
BIOC63H3 Conservation Biology
BIOC67H3 Inter-University Biology Field Course

1.0 credit from:
EESD04H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD15H3 Cleaning Up our Mess: Remediation of Terrestrial and Aquatic Environments
EESD22H3 Contaminant Fate in Terrestrial Environments
EESD99H3 Research Project in Environmental Science
EESD10Y3 Research Project in Environmental Science
BIOD52H3 Special Topics in Biodiversity and Systematics
BIOD68H3 Spatial Ecology
BIOD66H3 Causes and Consequences of Biodiversity
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Research Project in Biology

SPECIALIST PROGRAM IN ENVIRONMENTAL CHEMISTRY (SCIENCE)
Supervisor of Studies: Effie Sauer (416-287-7209 or 416-287-7220 (Alt)) Email: esauer@ustc.toronto.ca
Advisor: J. Donaldson (416-287-7213)

Program Requirements
Total requirements: 15.0 full credits

First Year:
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
BIOA01H3 Life on Earth: Unifying Principles
Second Year:
- BBOB50H3 Ecology
- CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
- CHMB22H3 Chemical Structure and Spectroscopy
- CHMB41H3 Organic Chemistry I
- CHMB42H3 Organic Chemistry II
- CHMB59H3 Environmental Chemistry
- STAB22H3 Statistics I

and
- 1.0 full credit from the following:
  - EESB03H3 Principles of Climatology
  - EESB04H3 Principles of Hydrology
  - EESB05H3 Principles of Soil Science
  - EESB15H3 Earth History

Third Year:
- EESC03H3 Geographic Information Systems and Remote Sensing
- EESC07H3 Groundwater
- EESC13H3 Environmental Impact Assessment and Auditing
- EESC15H3 Research in Environmental Science
- CHMB16H3 Techniques in Analytical Chemistry
- CHMB31H3 Introduction to Inorganic Chemistry
- PSCB57H3 Introduction to Scientific Computing

Fourth Year:
- EESD02H3 Contaminant Hydrogeology
- EESD55H3 Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments
- EESD32H3 Contaminant Fate in Terrestrial Environments
- CHMC11H3 Principles of Analytic Instrumentation

and
- 0.5 credit from the following:
  - CHMC21H3 Topics in Biophysical Chemistry
  - CHMC31Y3 Intermediate Inorganic Chemistry
  - CHMC41H3 Intermediate Organic Chemistry
  - CHMC47H3 Bio-O rganic Chemistry

SPECIALIST PROGRAM IN ENVIRONMENTAL GEOSCIENCE (SCIENCE)

Program Requirements

Total requirements: 15.0 full credits of which 1.0 must be at the D-level as follows:

First Year:
- EESA01H3 Introduction to Environmental Science
- EESA06H3 Introduction to Planet Earth
- BAOA01H3 Life on Earth: Unitying Principles
- BAOA02H3 Life on Earth: Form, Function and Interactions
- CHMA10H3 Introductory Chemistry I: Structure and Bonding
- CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
120 Environmental Science

MATA30H3 Calculus I for Biological and Physical Sciences
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences]

[PHYA10H3 Introduction to Physics I A or PHYA11H3 Introduction to Physics IB]

Second Year:
BIOB30H3 Ecology
CHMB35H3 Environmental Chemistry
EESB30H3 Principles of Geomorphology
EESB31H3 Principles of Climatology
EESB40H3 Principles of Hydrology
EESB51H3 Principles of Soil Science
EESB65H3 Earth History
PSCB57H3 Introduction to Scientific Computing
STAB22H3 Statistics I

Third Year:
EESO0H3 Geographic Information Systems and Remote Sensing
EESO4H3 Biodiversity and Biogeography
EESO70H3 Groundwater
EESC13H3 Environmental Impact Assessment and Auditing
EESC15H3 Research in Environmental Science
EESC21H3 Principles of Glacial Sedimentology and Stratigraphy
EESC22H3 Mineralogy and Petrology

and

0.5 credit from the following:
EESC19H3 The Great Lakes: An Introduction to Physical Limnology
EESC20H3 Marine Systems

Fourth Year:
1.0 full credit from the following:
EESC21H3 Urban Environmental Problems of the Greater Toronto Area
EESD02H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD09H3 Research Project in Environmental Science
EESD10H3 Research Project in Environmental Science
EESD11H3 Process Hydrology
EESD15H3 Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments
EESD32H3 Contaminant Fate in Terrestrial Environments

and

1.0 full credit from any other EES courses

Strongly recommended: EESC10H3 Field Camp I or EESD07H3 Field Camp II

SPECIALIST PROGRAM IN ENVIRONMENTAL PHYSICS (SCIENCE)
Supervisor of Studies: Mathew Wells (416-288-4879 or 416-287-7359 (ALT)) Email: wells@uts.toronto.ca
Advisor: M. Wells (416-288-4879) Email: wells@uts.toronto.ca

Program Requirements
Total Requirements: 15.5 full credits

First Year:
PHYA10H3 Introduction to Physics IA
PHYA21H3 Introduction to Physics II A
MATA30H3 Calculus I for Biological and Physical Sciences
MATA35H3 Calculus II for Physical Sciences
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EESA01H3</td>
<td>Introduction to Environmental Science</td>
</tr>
<tr>
<td>EESA05H3</td>
<td>Introduction to Planet Earth</td>
</tr>
<tr>
<td>MAT23H3</td>
<td>Linear Algebra I</td>
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<tr>
<td>PHYS190H3</td>
<td>Vibrations and Waves</td>
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<tr>
<td>PHYS140H3</td>
<td>Mechanics: From Oscillations to Chaos</td>
</tr>
<tr>
<td>EESB02H3</td>
<td>Principles of Geomorphology</td>
</tr>
<tr>
<td>EESB03H3</td>
<td>Principles of Climatology</td>
</tr>
<tr>
<td>EESB04H3</td>
<td>Principles of Hydrology</td>
</tr>
<tr>
<td>EESB05H3</td>
<td>Principles of Soil Science</td>
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<tr>
<td>MATB4H3</td>
<td>Techniques of Calculus of Several Variables I</td>
</tr>
<tr>
<td>MATB4H3</td>
<td>Techniques of Calculus of Several Variables II</td>
</tr>
<tr>
<td>PHYS10H3</td>
<td>Intermediate Physics Laboratory I</td>
</tr>
<tr>
<td>PHYS11H3</td>
<td>Intermediate Physics Laboratory II</td>
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<tr>
<td>PHYS11H3</td>
<td>Intermediate Physics Laboratory II</td>
</tr>
<tr>
<td>PHYS21H3</td>
<td>Electricity and Magnetism</td>
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<tr>
<td>PSCB57H3</td>
<td>Introduction to Scientific Computing</td>
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<tr>
<td>STAT22H3</td>
<td>Statistics I</td>
</tr>
<tr>
<td>EESB15H3</td>
<td>Earth History</td>
</tr>
<tr>
<td>EESC03H3</td>
<td>Geographic Information Systems and Remote Sensing</td>
</tr>
<tr>
<td>EESC12H3</td>
<td>Research in Environmental Science</td>
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<tr>
<td>EESC07H3</td>
<td>Groundwater</td>
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<tr>
<td>[EESC14H3</td>
<td>The Great Lakes: An Introduction to Physical Limnology or EESC13H3 Marine Systems]</td>
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<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>EESC13H3</td>
<td>Environmental Impact Assessment and Auditing</td>
</tr>
<tr>
<td>PSCD61H3</td>
<td>The Physical Sciences in Contemporary Society</td>
</tr>
</tbody>
</table>

**And**

1.5 full credits from:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHMB55H3</td>
<td>Environmental Chemistry</td>
</tr>
<tr>
<td>EESC21H3</td>
<td>Urban Environmental Problems of the Greater Toronto Area</td>
</tr>
<tr>
<td>EESS02H3</td>
<td>Contaminant Hydrogeology</td>
</tr>
<tr>
<td>EESS02H3</td>
<td>Climate Change Impact Assessment</td>
</tr>
<tr>
<td>EESS09H3</td>
<td>Research Project in Environmental Science</td>
</tr>
<tr>
<td>EESS10Y3</td>
<td>Research Project in Environmental Science</td>
</tr>
<tr>
<td>EESS11H3</td>
<td>Process Hydrology</td>
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<tr>
<td>EESS22H3</td>
<td>Contaminant Fate in Terrestrial Environments</td>
</tr>
<tr>
<td>PSDB10H3</td>
<td>Physical Sciences Project</td>
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</table>

**MAJOR PROGRAM IN ENVIRONMENTAL SCIENCE (SCIENCE)**

Supervisor of Students: C. Mitchell (416-280-7474) Email: c.mitchell@utoronto.ca

**Program Requirements**

This program requires 8.5 full credits as follows:

**First Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIOA01H3</td>
<td>Life on Earth: Unifying Principles</td>
</tr>
<tr>
<td>BIOA02H3</td>
<td>Life on Earth: Form, Function and Interactions</td>
</tr>
<tr>
<td>CHMA08H3</td>
<td>Introductory Chemistry I: Structure and Bonding</td>
</tr>
<tr>
<td>CHMA11H3</td>
<td>Introductory Chemistry II: Reactions and Mechanisms</td>
</tr>
<tr>
<td>[MAT20H3</td>
<td>Calculus A or MAT20H3 Calculus I for Biological and Physical Sciences]</td>
</tr>
<tr>
<td>[MAT21H3</td>
<td>Calculus B or MAT25H3 or MAT26H3 Calculus II for Biological/Physical Sciences]</td>
</tr>
<tr>
<td>[PHYA10H3</td>
<td>or PHYA10H3 Introduction to Physics I or II]</td>
</tr>
</tbody>
</table>
Environmental Science

EES36H3 Planet Earth
Second Year
STAT22H3 Statistics I
and
1.5 credits from:
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 credits from:
BIOB59H3 Ecology
EESB02H3 Principles of Geomorphology
EESB17H3 Hydro Politics and Transboundary Water Resource Management
PSCH57H3 Introduction to Scientific Computing
CHMB53H3 Environmental Chemistry
Third & Fourth Years
2.0 credits from C- & D-level EES courses with at least 0.5 credit at the D-level

MINOR PROGRAM IN ENVIRONMENTAL SCIENCE (SCIENCE)
Supervisor of Studies/Advisor: G. Arshadzadis (416-283-4859), Email: georges@ustd.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 full credits
First Year:
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth

Second Year:
Any 1.5 full credits from the following:
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB15H3 Earth History

Third Year:
1.5 full credits of any other EES courses of which 1.0 full credit must be at the C- or D-level.

MAJOR PROGRAM IN ENVIRONMENTAL SCIENCE - GENERAL ENVIRONMENTAL SCIENCE STREAM (SCIENCE)
This stream has been withdrawn from the curriculum. Every effort will be made to allow students enrolled in the stream to complete it.

MAJOR PROGRAM IN ENVIRONMENTAL SCIENCE - ENVIRONMENTAL BIOLOGY STREAM (SCIENCE)
This stream has been withdrawn from the curriculum. Every effort will be made to allow students enrolled in the stream to complete it.

MAJOR PROGRAM IN ENVIRONMENTAL SCIENCE - WATER SCIENCE STREAM (SCIENCE)
This stream has been withdrawn from the curriculum. Every effort will be made to allow students enrolled in the stream to complete it.

SPECIALIST(JOINT) PROGRAM IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY (SCIENCE)
EEAS0193 Introduction to Environmental Science

This course provides an introduction to 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, and the human degradation of the atmosphere, soil, water and biological resources caused by human activity are discussed. 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 how 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 risk assessment and toxicology using case studies. No prior knowledge of environmental science is required.

Breadth Requirement: Natural Sciences

EEAS0803 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 how 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 risk assessment and toxicology using case studies. No prior knowledge of environmental science is required.

Breadth Requirement: Natural Sciences

EEAS0603 Introduction to Planet Earth

This course explores the composition, structure and function of the Earth and the physical and biological processes that operate on and in it. The history of the Earth is revealed in the rock record. The flows of energy and mass through natural systems, and the impact of human activity on system processes, with particular reference to land use change, soil degradation and atmospheric pollution.

Exclusion: GGR100Y, GGL100Y

Breadth Requirement: Natural Sciences

EEAS0123 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 men; 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 Requirement: Natural Sciences

EEAS0903 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 Requirement: Natural Sciences

EEAS0193 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 how 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 risk assessment and toxicology using case studies. No prior knowledge of environmental science is required.

Breadth Requirement: Natural Sciences

EEAS0103 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 how 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 risk assessment and toxicology using case studies. No prior knowledge of environmental science is required.

Breadth Requirement: Natural Sciences

EEAS0193 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 how 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 risk assessment and toxicology using case studies. No prior knowledge of environmental science is required.

Breadth Requirement: Natural Sciences

EEAS0103 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 how 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 risk assessment and toxicology using case studies. No prior knowledge of environmental science is required.

Breadth Requirement: Natural Sciences

EEAS0103 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 how 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 risk assessment and toxicology using case studies. No prior knowledge of environmental science is required.

Breadth Requirement: Natural Sciences
EEB044H4 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: EES0A1H3 or EES0A0H3 or any B-level EES course. Exclusion: GCR030H1
Breadth Requirement: Natural Sciences

EEB059H3 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: EES0A0H3 or EES0A0H3
Exclusion: GCR030H1
Breadth Requirement: Natural Sciences

EEB151H3 Earth History
Planet Earth is at least 4.4 billion 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 geochemical cycles. This course reviews this long history and the methods and techniques used by geologists to identify ancient environments. Prerequisite: EES0A0H3 or EES0A0H3 or permission of the instructor
Breadth Requirement: Natural Sciences

EEB163H3 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: BIOC0A1H3 & BIOC0A1H3
Breadth Requirement: Natural Sciences

EEB171H3 Hydro Polities 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: EES0A0H3 or EES0A0H3
Breadth Requirement: Social & Behavioural Sciences

EEC353H3 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; gis-referencing and coordinate systems; remotely sensed image manipulation and analysis; map production. Prerequisite: EES0A0H3 & 1.5 full credits in B- or C-level EES courses. Recommended Preparation: A prior introductory GIS course and some experience with the use of computers (Windows or Unix-based.)
Breadth Requirement: Quantitative Reasoning

EEC046H3 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: BIOC0A1H3 or permission of the instructor
Breadth Requirement: Natural Sciences

EEC071H3 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: EES0A0H3 & 1.0 full credit in B-level EES courses
Breadth Requirement: Natural Sciences

EEC139H3 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: 2.5 full credits of EES courses or permission of the instructor Exclusion: GGR303H1
Breadth Requirement: Natural Sciences

EEC159H3 Research in Environmental Science
Concepts and methods developed in Environmental Science will be applied to practical environmental problems, within the framework of individual or group projects; a research proposal and a research seminar will be produced. The course is also designed to ensure interaction between students from disparate
streams of environmental science through participation in joint seminars with faculty and with environmental practitioners from the community at large.

Prerequisite: Permission of co-ordinator

Breadth Requirement: 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 instructor.

Recommended Preparation: EESB1H3

Breadth Requirement: Natural Sciences

EESC18H3 The Great Lakes: An Introduction to Physical Limnology

North America is endowed with eight of the twelve largest freshwater lakes in the world. The hydrodynamics and hydrochemistry of the Canadian Great Lakes are used as examples of large lacustrine systems. Fundamental concepts in physical and biological limnology are related to features found in the Great Lakes. Topics include: classification and origin of lakes, temperature structure, seasonal circulation, heat budgets, Langmuir circulation, winds, waves and water levels, eutrophication and invasive species.

Prerequisite: EESB0H3

Recommended Preparation: EESB2H3

Breadth Requirement: Natural Sciences

EESC19H3 Marine Systems

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 of the coastal ocean. The large-scale water circulation is examined from an observational based water mass analysis and from a theoretical hydro-dynamical framework. The circulation of marginal seas, the role of tides, waves and water currents are studied in terms of their effects upon the coastal boundary.

Prerequisite: EESB0H3

Recommended Preparation: EESB12H3

Breadth Requirement: Natural Sciences

EESC21H3 Urban Environmental Problems of the Greater Toronto Area

Urban areas such as the GTA are the focus of many acute environmental problems such as the disposal of solid and liquid wastes, and the contamination of soil, air and water by industrial activity. Specific cases of such problems drawn from the GTA will be reviewed, with reference to field investigations, environmental audits, due diligence and liability, and remedial solutions. Students will carry out their own field investigations and will report on specific issues, paying particular regard to government legislation and guidelines issued by regulatory agencies. This course is essential to students in the Environmental Science Program, but is also directly relevant to business and management students.

Prerequisite: 10 full credits in an EES Program, or permission of the instructor.

Breadth Requirement: 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 GPA of 2.5, and 3 full credits in EES courses. Permission of the Supervisor of Studies.

EESC30H3 Micrornal Biogeochemistry

This course examines the diversity of microorganisms, their adaptations to special habitats, and their role in the ecosystem and geochemical cycling. Other topics include microbial phylology, physiological diversity, species interactions and state of the art methods of detection and enumeration.

Prerequisites: CIMA1H13 & CIMA2H13 & BIOB50H3 & BIOB51H3

Exclusion: (BIOYC55H3)

Breadth Requirement: Natural Sciences

EESC31H3 Principles of Glacial Sedimentology and Stratigraphy

The last 2.5 million years has seen the repeated formation of large continental ice sheets over North America and Europe. The landscape of Ontario is a fossil landscape inherited from the last Laurentide ice Sheet that disappeared only 10,000 years ago, much of southern Ontario is buried by glacial sediments and the Great Lakes are the direct result of glaciation. The course will review the cause of glaciations and their geological and geomorphological effects paying special regard to the long record of past glacial and interglacial climates preserved in the Toronto region.

Prerequisite: EESA0H3

Breadth Requirement: Natural Sciences

EESC32H3 Mineralogy and Petrology

This course provides an overview of common mineral and rock types and the methods for describing and identifying them. The fundamentals of crystal structure will be reviewed and used as a basis for mineralogical classification. Simple microscopic techniques for mineral identification and the mineralogy and origin of the more common sedimentary, igneous and metamorphic rock types are presented. This course is necessary for those students who wish to seek professional registration as a Professional Geoscientist in Ontario.

Prerequisite: EESA01H3 & EESA06H3

Exclusion: GLG200H, ERS201H, ERS203H

Enrollment Limits: 20

Breadth Requirement: 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 field course teaches the necessary skills for
fieldwork investigations on the interactions between air, water, and biota. Faculties 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: EESC1593 Exclusion: GLG4701, GLG4711H.

**EESC1193 Process 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, hydrologic and isotopic research methods. Problems of physically based and empirical modelling of hydrological processes. Stormwater management and modeling. Prerequisite: EESC0493H Breadth Requirement: Natural Sciences

**EESC1593 Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments**

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: BIOA0101 & BIOA0201 & CEMA1093 & CEMA1193 & [PHYS1093 or PHYS1193] Breadth Requirement: Natural Sciences

**EESC1693 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. The course will provide the core elements for this course. Prerequisite: Enrolment in the Environmental Studies major program and 14.5 credits. Enrolment Limit: 30 Breadth Requirement: Natural Sciences

**EESC1793 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 to schedule in the Fall semester. Prerequisite: Enrolment in the Environmental Studies major program and 14.5 credits. Enrolment Limit: 30 Breadth Requirement: Natural Sciences
Environmental Science and Technology

SPECIALIST (JOINT) PROGRAM IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY (SCIENCE)

Supervisor of Studies: Mandy Moreano (416-208-2777) Email: mmoreano@utoronto.ca

This program is offered in collaboration with the School of Engineering Technology and Applied Science at Centennial College. The program leads to an Honours B.Sc. Degree from UTSC and the Environmental Protection Technologist Diploma from Centennial College, all within the normal course-load requirements for Specialist programs. This program is a valuable option that prepares graduates with a combination of key theoretical and practical skills to work in the environmental field. UTSC and Centennial College bring together in this program considerable strengths, expertise and excellent facilities in support of environmental science education and training. Students graduate from the Joint program with the quantitative and analytical skills necessary to undertake a range of careers in industry, government and non-government organizations. There is at present an unmet demand for expertise in this area in the Canadian labour market. Graduates are also excellent candidates to continue on to graduate studies in pursuit of advanced degrees in environmental science, such as the department's Master of Environmental Science program.

Guidelines for first year course selection
Students who intend to pursue this program should include BIOA60H3, BIOA62H3, CHMA10H3, CHMA11H3, MATA36H3, MATA36H3, and [PHYA10H3 or PHYA11H3] in their first year course selection.

Program Admission
Students should request the program through ROSI. Enrolment is limited. Students may apply for admission to the program after completing 4.0 full credits, including 1.0 credit in Environmental Science, and 0.5 credit in each of Chemistry, Biology, Mathematics and Physics.

Program Requirements
Students must complete 16.0 full credits, as follows:

1. Introductory (3.5 credits):
   a. EESA01H3 Introduction to Environmental Science
   and
   b. EESA06H3 Introduction to Plant Earth
   c. CHMA10H3 Introductory Chemistry I: Structure and Bonding
   and
   d. CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
   e. BIOA61H3 Life on Earth: Unifying Principles
   and
   f. BIOA62H3 Life on Earth: Firm, Function and Interactions
   g. STAB22H3 Statistics
   or
   h. PSCE57H3 Introduction to Scientific Computing

2. Fundamentals and Principles (3.5 credits):
   a. BIOB08H3 Ecology
   and
   [PHYA10H3 Introduction to Physics IA
   or
   PHYA11H3 Introduction to Physics IB]

EESD19H3 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.
Prerequisite: Enrollment in the Environmental Studies major program and 14.5 credits.
Breadth Requirement: Natural Sciences

EESD32H3 Contaminant Fate in Terrestrial Environments

This course will present fundamental chemical concepts and reactions that occur in soils with an emphasis on contaminant behaviour. Students will learn the basics of soil chemistry and how these processes relate to quantities, attenuation, sequestration, and movement of ions, heavy metals, and organic molecules in terrestrial environments.
Prerequisite: CHMB35H3 & EESB05H3
Breadth Requirement: Natural Sciences
b. MATA3003 Calculus I for Biological and Physical Sciences
   and
   MATA3603 Calculus II for Physical Sciences

c. 1.5 credits of the following:
   EESB2003 Principles of Geomorphology
   EESB2003 Principles of Climatology
   EESB2003 Principles of Hydrology
   EESB2003 Principles of Soil Science
   EESB2153 Earth History
   EEBB1013 Feeding Humans - The Cost to the Planet

3. Applied and Technical (6.5 credits):
   (These courses are taught at the Centennial HP Science and Technology Centre.)

a. *EMCB2103 Microbiology Basics
   *STEM2013 Organic Chemistry and Application
   *STEM2073 Analytical Chemistry and Applications
   *STEM2093 Applied Environmental Microbiology
   STEC1103 Applied Microbiological Analysis
   STEC1133 Applied Analytical Instrumentation

b. *STEM2423 Water Quality Control
   *STEM4033 Engineering Equipment and Processes
   STEC2083 Applied Hydrology and Flows Management
   STEC2103 Hazardous Wastes and Modern Industrial Processes

4. Advanced
   2.0 credits from:
   EESC0003 Geographic Information Systems and Remote Sensing
   EESC0003 Biodiversity and Biogeography
   EESC0003 Groundwater
   EESC0183 The Great Lakes: An Introduction to Physical Limnology
   EESC1003 Marine Systems
   EESC2003 Urban Environmental Problems of the Greater Toronto Area
   EESC2013 Advanced Readings in Environmental Science
   EESC3013 Microbial Biogeochemistry
   and
   1.0 credit from:
   Any D-level EES course
   *A minimum grade of 60% is required in courses marked with an asterisk in order to maintain standing in the program.

STEM2073 Analytical Chemistry and Applications
   Quantitative analysis with pharmaceutical precision and accuracy to industrial and environmental protocols. Standard wet chemistry and instrumental techniques, data analysis and presentation. Conformity with health, safety and environmental regulatory requirements. Limited to students enrolled in the Joint Specialist Program in Environmental Science and Technology or the Joint Specialist Program in Applied Microbiology. Prerequisite: EMCB0003 or CIMA1193 and permission of instructor. Note: CIMA1193 or CHMB1403 may be taken after STEM2073, but STEM2073 cannot be taken after EMBC1103 or CHMB1403.
   Exclusion: CIMA1103, CHMB1403.
   Breadth Requirement: Natural Sciences

STEM2033 Organic Chemistry and Applications
   An introduction to the theory and practical applications of organic chemistry. An introduction to the principles of structure, properties identification and reactions of organic compounds as related to biology and other areas of science. Enrolment is limited to students enrolled in the Joint Specialist Program in Environmental Science and Technology. Prerequisite: CHMA1103
   Exclusion: CHMB4103 & CHMB4203.
   Note: CHMB4103 and CHMB4203 may be taken after STEM2103, but STEM2103 may not be taken after CHMB4103 or CHMB4203.
   Breadth Requirement: Natural Sciences
STE840H3 Applied Environmental Microbiology
The principles of Environmental Biology: water, air and soil testing procedures, Analysis of contaminated and spiked samples using Ministry of Environment and Industry standards, procedures and protocols. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology. Prerequisite: BIOA313H3 & IMCB01H3. Breadth Requirement: Natural Sciences

STE842H3 Water Quality Control
The characteristics of raw water and wastewater, water supply systems, sources of supply, methods of treatment, alternative sources of water and methods of distribution. The disposal of wastewater, the collection system and sewage treatment methods. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology. Prerequisite: BMA232H3 & IMCB01H3. Breadth Requirement: Natural Sciences

STE843H3 Engineering Equipment and Processes
Energy and mass in engineering systems, hydrostatics, fluid flow, Bernoulli's theorem. Pumping systems, head losses through hydraulic systems, the efficiency of pumps and motors. Process equipment systems with emphasis on pumps, pipes and valves. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology. Prerequisite: PHYA11H3 or PHYA11H5. Breadth Requirement: Natural Sciences

STE844H3 Environmental Legislation and Regulations
The concepts of law and legal process as they apply in Canada. The Ontario Environmental Protection Act and other environmental legislation. Research on selected Canadian statutes with a written report and oral presentation. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology. Breadth Requirement: Natural Sciences

STE811H3 Applied Microbiological Analysis
The basic principles of Environmental Microbiology, immunology, molecular biology and genetics and toxicity testing using microorganisms. Laboratories are performed using current Ministry of Environment methodologies. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology. Prerequisite: STE840H3. Breadth Requirement: Natural Sciences

STE815H3 Applied Analytical Instrumentation
The theory and practices of chemical sampling and analysis used by the Ministry of Environment and Energy. The emphasis will be on the analysis of environmental samples using MORE procedures and College equipment. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology. Prerequisite: CHMC10H3 & STE807H3. Exclusion: CHMC10H1 Note: STE815H3 may not be taken after CHMC10H2. Exclusion: CHMC10H3 may be taken after STE815H3. Breadth Requirement: Natural Sciences

STE833H3 Environmental Audits, Sampling and Data Management
Ministry approved Industrial Auditing protocols. The presentation and manipulation of graphs, spreadsheets and tests, using popular software titles. The ISO series, with emphasis on EMS and ISO 14001. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology. Exclusion: STE833H3 may not be taken after or concurrently with EES003H3. Breadth Requirement: Natural Sciences

STE860H3 Applied Hydrology and Spills Management
The movement of water in its natural state; techniques to measure and control the flow of surface and subsurface water. Current techniques to prevent contamination of subsurface water and surface water by chemical spills. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology. Prerequisite: EES804H3 & STE842H3. Breadth Requirement: Natural Sciences

STE861H3 Hazardous Wastes and Modern Industrial Processes
Each student will be assigned research on a different pollutant, which might be one of the following: heavy metals in water, mercury, aromatic solvents, polynuclear resins, PCBs, halogenated solvents, organic acids, fluor or pesticides. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology. Prerequisite: CHMA11H3 & STE815H3 & STE807H3. Breadth Requirement: Natural Sciences

IMCB01H3 Microbiology Basics
See the Applied Microbiology (formerly Industrial Microbiology) section of this Calendar for a full description.
130 French

Program Director: P. Riendeau (416-287-7167) Email: pascal.riendeau@utoronto.ca

Studies in French allow for a wide range of interests: the enhancement of practical language skills, including translation, pronunciation and business French (FREA10H3, FREB08H3, FREB17H3, FREB18H3, FREB44H3, FREC1H3D); the study of how the language is structured (FREQ2H3, FREQ5H3, FREC2H3, FREC4H3, FREC7H3, FREC8H3); the development of approaches to the teaching of French (FRED1H3, FRED3H3, FRED11H3); and the exploration of the rich literatures and cultures of French Canada, France and other parts of the francophone world.

Students are also encouraged to take HUMA01H3 (Exploring Key Questions in Humanities) as early as possible in their French studies. The following Programs are offered at University of Toronto Scarborough: a Minor Program in French; a Minor Program in French for Francophones; a Major in French; and a Specialist Program in French which can be completed either as a specialist program in its own right or as part of the Concurrent Teacher Education Program (CTEP).

Guidelines for course selection:

French studies normally begin with FREA01H3 Language Practice I, which serves to consolidate previous knowledge, and is the prerequisite for more advanced courses in all areas. FREA01H3 is designed primarily for students with Grade 11 French or equivalent competence. Those who have significant “immersion” or “enriched” high school experience, or who have native or near-native abilities in French, should consult the faculty member responsible for FREB01H3 or FREC01H3 about the appropriate entry courses.

Students without Grade 12 French may wish to take FREA09H3 Introductory French I, FREA09H3 Introductory French II, FREA09H3 Intermediate French I or FREA09H3 Intermediate French II. Incoming students must register in the course appropriate to their level of language skill, based on the results of a placement test.

The placement test is MANDATORY for all students who register for the first time in FREA09H3, FREA09H3, FREA09H3 or FREA09H3. University of Toronto students who have already taken FSL100H or FSL101H do not need to write the placement test. Please check the Humanities French webpage for details: www.arts.utoronto.ca/~hacdiv/lanfrang/infre, studyguide/overview.htm. If you experience difficulties in logging in or if you wish to write the test at the Department of Humanities, please write to french-placement@arts.utoronto.ca for assistance or to book an appointment. The Department STRONGLY RECOMMENDS that the placement test be completed prior to registration.

Students with a Grade 12 French credit should proceed directly to FREA01H3 and higher-level courses (some exceptions may apply with the permission of the Program Supervisor). Note that the Language Practice courses FREA01H3 & FREA02H3, FREB01H3 & FREB02H3, FREB03H3 & FREC02H3 and FRID01H3 & FRED03H3 must be taken in sequence. Normally, an Advanced PRE course should not be taken at the same time as, or after, a B-level PRE course. Please do not hesitate to consult Program Supervisors and other faculty members for further advice about course selection and Programs.

The Study Elsewhere Program offers ideal opportunities for students of French to earn academic credit while studying in another province or country. For further information about this Program and about Letters of Permission, please refer to “Study at Other Universities” in this Calendar, and speak to our Program Supervisor.

Students with Grade 12 French who took Summer Banner Program courses prior to attending U of T must see the Program Supervisor during the first week of classes. After assessing the course, the Program Supervisor 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 Program Supervisor about possible exclusions if they are considering registering in French courses in the Faculty of Arts and Science or at 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 Language Citation section of the Calendar for more information.

SPECIALIST PROGRAM IN FRENCH (ARTS)

Program Supervisor: P. Riendeau (416-287-7167) Email: pascal.riendeau@utoronto.ca

This program is designed to provide students with a fundamental knowledge and grasp of principles and practices in core areas of French language, grammar, linguistics, literature and culture. It can be completed either as a Specialist Program in its own right or as part of the Concurrent Teacher Education Program (CTEP) in French. For more information on CTEP, see the Concurrent Teacher Education section of this 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 must be at the D-level

1. 4.0 credits consisting of:
   - FREA01H3 Language Practice
   - FREA09H3 Language Practice I

FREB01H3 Language Practice II
FREB02H3 Language Practice IV
FREB01H3 Language Practice V
FREB02H3 Language Practice VI
FREB01H3 Language Practice VII: Written French
FREB06H3 Language Practice VIII: Oral French

(Except where substitution of other French credits is permitted for students with special proficiency in the French language)

2. 3.0 credits selected from:
FREB43H3 Understanding French Grammar
FREB44H3 Introduction to Linguistics: French Phonetics and Phonology
FREB45H3 Introduction to Linguistics: French Morphology and Syntax
FREC45H3 French Morphology
FREC46H3 French Syntax
FREC47H3 Special Topics in Linguistics:Pidgin and Creole Languages
FREC48H3 Sociolinguistics of French
FREC49H3 Special Topics in Advanced French Syntax
FRED09H3 French Semantics

3. 1.0 credit selected from:
FREB23H3 The Society and Culture of Quebec
FREB27H3 Modern France
FREB28H3 The Francophone World
FREB44H3 Folklore, Myth, and the Fantastic in the French-Speaking World
FREC38H3 Cultural Identities and Stereotypes in the French-Speaking World

4. 3.0 credits in literature which must include one full credit in French Canadian literature; one full credit in French literature
(FREB50H3, FREB51H3 and FREB55H3 can fulfill this requirement); one-half credit in literature from other parts of the
French-speaking world excluding France and Canada, one-half credit of your choice.

5. 1.0 additional credit in French.

Note: CTEP students should choose two subject-specific half credit courses focusing on teaching French.

MAJOR PROGRAM IN FRENCH (ARTS)
Program Supervisor: P. Riendeau (416-287-7167) Email: pascal.riendeau@utoronto.ca

Program Requirements
Students must complete 7.0 credits in French, of which at least 2.0 credits must be at the C- or D-level, including:

1. FREA01H3, FREA02H3, FREB01H3 and FREB02H3 (except where the Program Supervisor permits substitution of other
FRE courses for students with special proficiency in the French language).

2. One further full credit in language.
Language courses are: FREB00H3, FREB09H3, FREB17H3, FREB18H3, FREB43H3, FREB44H3, FREB45H3,
FREC10H3, FREC22H3, FREC50H3, FREC18H3, FREC45H3, FREC46H3, FREC48H3, FRED09H3, FREB01H3, FREB02H3,
FREB44H3, FRED49H3

3. One full credit in literature and/or culture.
Literature courses are: FREB23H3, FREB35H3, FREB36H3, FREB37H3, FREB50H3, FREB51H3, FREB55H3, (FREB60H3),
FREC10H3, FREC50H3, FREC60H3, FREC63H3, FREC12H3


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 section in this Calendar.

MINOR PROGRAM IN FRENCH (ARTS)
Program Supervisor: P. Riendeau (416-287-7167) Email: pascal.riendeau@utoronto.ca

Program Requirements
Students should complete four full credits including: FREA01H3, FREA02H3, FREB01H3 and FREB02H3, plus two further
credits in French. At least one full credit must be at the C-level.

MINOR PROGRAM IN FRENCH FOR FRANCOPHONES (ARTS)
Program Supervisor: P. Riendeau (416-287-7167) Email: pascal.riendeau@utoronto.ca

Program Requirements
Students in this Program must complete at least four full credits at the B- and C-levels, excluding FREB01H3, FREB02H3 and
FREB17H3. At least one full credit must be at the C-level.

MINOR PROGRAM IN FRENCH AS A SECOND LANGUAGE (ARTS)
This program has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in it are able to complete it. Students who had planned to enrol in it in 2010/2011 may want to consider enrolling instead in the Minor Program in French.

FREA9603 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. The placement test is mandatory for all students (even complete beginners) who register for the first time. The Department strongly recommends that the placement test be completed prior to registration.
Exclusion: (LLOGA21H3), (LLOGA22H3), (LLOGB21H3), (LLOGB22H3), FSL100H or equivalent
Enrolment Limitation: 30 per section
Breadth Requirement: Arts, Literature & Language

FREA9713 Intermediate French II
An intensive course in written and spoken French; a continuation of FREA9013.
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 FREA9603, using the second half of the same textbook. A placement test is mandatory for all students who register for the first time in FREA9603, FREA9713, FREA9913 and FREA9914. The Department strongly recommends that the placement test be completed prior to registration.
Exclusion: (LLOGA21H3) or (LLOGA22H3)
Exclusion: (LLOGB22H3), FSL100H or equivalent
Enrolment Limitation: 30 per section
Breadth Requirement: Arts, Literature & Language

FREA9803 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. A placement test is mandatory for all students who register in FREA9603, FREA9713, FREA9913 or FREA9914 for the first time. The Department strongly recommends that the placement test be completed prior to registration.
Exclusion: (LLOGA21H3) or (LLOGA22H3)
Exclusion: FSL121Y, (LLOGB22H3) or equivalent
Enrolment Limitation: 30 students per section
Breadth Requirement: Arts, Literature & Language

FREA9804 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 FREA9803. Prepares students for FREA9013. Offers training in written and spoken French, reinforcing reading comprehension, written skills and oral/aural competence. A placement test is mandatory for all students who register in FREA9603, FREA9713, FREA9913 or FREA9914 for the first time. The Department strongly recommends that the placement test be completed prior to registration.
Exclusion: (LLOGB22H3) or equivalent
Exclusion: Grade 12 French, (LLOGB24H3), FSL121Y or equivalent. Cannot be taken concurrently or after FREA9013.
Enrolment Limitation: 30 per section
Breadth Requirement: Arts, Literature & Language

FREA9013 Language Practice I
Reinforcement and development of the language skills - understanding, reading, writing and speaking - necessary for higher-level courses. The course includes grammar review (written and oral), various exercises both traditional and Internet-based, and reading and discussion of texts from different Francophone cultures. FREA9013 is a prerequisite for all B-level courses.
Prerequisite: Grade 12 French or FREA9913 or equivalent or permission of instructor
Exclusion: Native or near-native fluency in French, (FSL161Y), (FSL181Y), FSL221Y
Breadth Requirement: Arts, Literature & Language

FREA9203 Language Practice II
A continuation of FREA9013.
Prerequisite: FREA9013
Exclusion: Native or near-native fluency in French, (FREA109Y), (FSL161Y), (FSL181Y), FSL221Y
Breadth Requirement: Arts, Literature & Language

FREA1713 Conversation I
Development and reinforcement of spoken French. Through oral practice based on common situations, students will learn vocabulary, syntax and grammar essential for communication. The course also involves supportive in-class written work and listening comprehension exercises. It may but does not have to accompany FREA9013 and FREA9023.
Prerequisite: Grade 12 French or equivalent
Exclusion: Native or near-native proficiency, (FSL161Y). In addition, FREA1713 may not be taken after or concurrently with FREA9013, FREA9023, FREA9103, FREA9203, FREA9213, FREA9215 or FREA9313.
Breadth Requirement: Arts, Literature & Language

FREA9014 Language Practice III
This course is concerned with the development of fluency; accuracy of expression and style through the study of grammar, composition, oral/aural practice, and a variety of readings. Course work can be supplemented by audio and videotapes.
Prerequisite: FREA9013 & FREA9023 or equivalent or permission of instructor
Exclusion: (FSL261Y), (FSL281Y), FSL311Y, FSL341Y or equivalent or native proficiency
Breadth Requirement: Arts, Literature & Language

FREA9024 Language Practice IV
A continuation of FREA9014.
Prerequisite: FREA9013 or equivalent or permission of instructor
Exclusion: (FSL261Y), (FSL281Y), FSL311Y, FSL341Y or equivalent or native proficiency
Breadth Requirement: Arts, Literature & Language
FREB0H3 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 & FREA02H3] or equivalent or permission of instructor
Exclusion: Native proficiency. FREB0H3 may not be taken after or concurrently with FREC1H3, FRE480Y or FRE481Y.
Breadth Requirement: Arts, Literature & Language

FREB1H3 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 & FREA02H3] or equivalent or permission of instructor
Breadth Requirement: Arts, Literature & Language

FREB17H3 Conversation II
Intensive practice in spoken French. Controlled situational work, discussion groups and a variety of exercises designed to improve lexical and syntactical resourcefulness will provide an opportunity for a reasonable degree of confidence when speaking about everyday life and contemporary topics. FREB17H3 can also be taken under Study Elsewhere.
Prerequisite: [FREA01H3 & FREA02H3] or equivalent
Breadth Requirement: Arts, Literature & Language

FREB15H3 Commercial French
The French language in a commercial or economic context. Of interest, among others, to students in French, Business, Accounting, Management, Economics and Journalism, this course emphasizes commercial writing techniques and exercises that include the vocabulary and structures of business language primarily as found in the Canadian francophone community.
Prerequisite: [FREA01H3 & FREA02H3] or equivalent or permission of instructor
Exclusion: FSL366H
Breadth Requirement: 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 texts, 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 & FREA02H3] or equivalent or permission of instructor
Exclusion: FRE358H1
Breadth Requirement: Arts, Literature & Language

FREB22H3 The Society and Culture of Quebec
A study of the historical, cultural and social development of Quebec 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 Quebec culture and society that make it a distinct place in North America.
Prerequisite: [FREA01H3 & FREA02H3] or equivalent or permission of instructor
Breadth Requirement: 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 & FREA02H3] or equivalent or permission of instructor
Breadth Requirement: History, Philosophy & Cultural Studies

FREB28H3 The Francophone World
An examination of historical, political and cultural realities in different parts of the French-speaking world. Topics to be discussed will include slavery, colonization, de-colonization and multilingualism.
Prerequisite: [FREA01H3 & FREA02H3] or equivalent or permission of instructor
Exclusion: FSL342Y
Breadth Requirement: History, Philosophy & Cultural Studies

FREB32H3 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 & FREA02H3] or equivalent or permission of instructor
Exclusion: FRE352H
Breadth Requirement: Arts, Literature & Language

FREB34H3 The 20th Century Quebec Novel
A study of some of the major novels written in Quebec 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 Quebec society.
Prerequisite: [FREA01H3 & FREA02H3]
Exclusion: FRE3210Y
Breadth Requirement: Arts, Literature & Language

FREB37H3 Contemporary Quebec Drama
An exploration of contemporary Quebec 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 & FREA02H3]
Exclusion: FRE321H
Breadth Requirement: Arts, Literature & Language

FREB43H3 Understanding French Grammar
Directed to students specializing in French and all those who wish to strengthen their knowledge/use of French. We explore ways in which quite simplified linguistic tools shed light on the apparent complexity of French grammar, and examine parts of speech, grammatical features and functions, subordination, clause types, and more.
Prerequisite: [FREA01H3 & FREA02H3] or equivalent
EXCLUSION: FRE272Y, FREC010H3/FREC020H3 or equivalent, native proficiency
Breadth Requirement: Arts, Literature & Language

FREB440H3 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: [FRE101H3 & FRE102H3] or equivalent or permission of instructor
Exclusion: FRE272Y, FRE378H
Breadth Requirement: Arts, Literature & Language

FREB450H3 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: FREB430H3 and FREB440H3
Prerequisite: [FRE101H3 & FRE102H3] or equivalent or permission of instructor
Exclusion: FRE272Y
Breadth Requirement: Arts, Literature & Language

FREB590H3 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: [FRE101H3 & FRE102H3] or equivalent or permission of instructor
Exclusion: FRE270Y
Breadth Requirement: Arts, Literature & Language

FREB531H3 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: [FRE101H3 & FRE102H3] or equivalent or permission of instructor
Exclusion: FRE270Y
Breadth Requirement: Arts, Literature & Language

FREB533H3 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 analyses and will apply them in course.
Prerequisite: [FRE101H3 & FRE102H3] or equivalent or permission of instructor.
Exclusion: FRE270Y
Breadth Requirement: Arts, Literature & Language

FREB704H3 Cinema of the Francophone World
An examination of films that have had a major impact on the development of Francophone cinema. We will study motion pictures from France, Quebec and other parts of the Francophone world that have made a significant contribution to both modern cinematography and Western culture.
Prerequisite: [FRE101H3 & FRE102H3] or equivalent or permission of instructor
Breadth Requirement: Arts, Literature & Language

FREB840H3 Folktales: 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. This course was formerly taught in English, but will now be taught in French.
Prerequisite: [FRE101H3 & FRE102H3] or equivalent or permission of instructor
Breadth Requirement: Arts, Literature & Language

FREC010H3 Language Practice V
The purpose of the course is to improve the student's written, listening and oral skills. The course will focus on acquisition of the appropriate means of expression through practice in text summary, composition, error analysis, review of specific grammar points and discussion of recorded material, articles and films.
Prerequisite: [FRE101H3 & FRE102H3] or equivalent or permission of instructor
Exclusion: [FSL361Y], [FSL362H], [FSL363H], [FSL431Y], [FSL442H], [FSL443H] or equivalent.
Breadth Requirement: Arts, Literature & Language

FREC020H3 Language Practice VI
A continuation of FREC010H3.
Prerequisite: [FRE101H3 & FRE102H3]
Exclusion: [FSL361Y], [FSL362H], [FSL363H], [FSL431Y], [FSL442H], [FSL443H] or equivalent.
Breadth Requirement: Arts, Literature & Language

FREC050H3 Exercises in Interpreting
Preparation for using oral French for job and other contact-related purposes. The class features small groups in "real-life" situations (e.g. legal cases, social work, immigration, annual business meetings). Practice in interpreting will focus on retention, accuracy of expression, lexical research, cultural "reformatting" and speed of delivery.
Prerequisite: [FREB170H] or equivalent or permission of instructor
Breadth Requirement: Arts, Literature & Language

FREC110H3 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: [FREC010H3 & FREC020H3] or equivalent or permission of instructor
Exclusion: FRE384H
Breadth Requirement: Arts, Literature & Language
FREC19H3 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 & FREB02H3] or [FREB08H3 or (FREB09H3) or equivalent or permission of instructor
Exclusion: FREB18H3 may not be taken after or concurrently with FRE480Y or FRE481Y.
Breadth Requirement: Arts, Literature & Language

FREC38H3 Special Topics in the Literature of Québec: Postmodern Literature
An exploration of the textual forms and ideas that challenge tradition in contemporary writing. Québecois postmodern literature speaks of vitality, liberating forces and creativity. We will examine issues such as gender identity, the question of the Self and the Other and the impact of technology on our culture.
Prerequisite: FREB50H3 or equivalent or permission of instructor
Breadth Requirement: Arts, Literature & Language

FREC43H3 French Morphology
A study of the morphological rules governing word formation and inflection in modern French. Special attention is devoted to analytical tools and their relevance to issues surrounding second language learning.
Prerequisite: FREB38H1 or equivalent
Exclusion: FREB38H1
Breadth Requirement: Arts, Literature & Language

FREC48H3 French Syntax
A study of various aspects of French sentences. Topics include grammatical patterns of sentences, how and why basic patterns are transformed, grammatical constraints on such transformations, and distinctive features that pose problems for FSL learners.
Prerequisite: FREB40H3 or FREB40H1
Exclusion: FREB37H1
Breadth Requirement: Arts, Literature & Language

FREC47H3 Special Topics in Linguistics: Pidgin and Creole Languages
A study of pidgins 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.
Prerequisite: FREB45H3 or FREB44H3 or FREB45H1 or LINN61H1 or permission of the instructor
Breadth Requirement: 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, language in contact, language shift, social codes and pidgin and Creole languages. Fieldwork is an integral part of this course.
Prerequisite: [FREB01H3 & FREB02H3] or equivalent or permission of instructor Exclusion: LINN20H3, (LINN21H3) Breadth Requirement: Social & Behavioural Sciences

FREC56H3 Topics in French Literature: Short Stories of the 19th and 20th Centuries
A study of the genre illustrated by short stories from different periods and traditions. The course will examine themes and literary techniques in at least six short stories; attention will also be paid to their socio-cultural context.
Prerequisite: [FREB01H3 & FREB02H3] or [FREB50H3 or equivalent] or permission of instructor
Breadth Requirement: Arts, Literature & Language

FREC59H3 Topica in French Literature: Humour in French-Language Fiction Today
An examination of modern and contemporary comic writing in French. The bases and functions of literary humour in the last several decades will be studied in works by authors both French and francophone as we consider culture's influence and how and why satire, parody and pastiche make us laugh.
Prerequisite: FREB50H3 or equivalent or permission of instructor
Breadth Requirement: Arts, Literature & Language

FREC56H3 Topics in French Literature: Encountering Foreign Cultures: Travel Writing in French
An examination of the trends and attitudes embodied in French travel writing over time. The course considers aspects of utopianism, cosmopolitanism, exoticism, imperialism, postcolonialism and ethnography in fictional and non-fictional narratives set "elsewhere". Selections are drawn from writers such as Labanint, Gautier, Nerval, Gide, Lévi, Segalen, Cocteau and Baudelaire.
Prerequisite: [(FREB01H3 & FREB02H3) & (FREB50H3 or equivalent)] or permission of instructor
Exclusion: none
Breadth Requirement: Arts, Literature & Language

FREC58H3 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 "bible 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 & FREB02H3] or equivalent, and one of FREB22H3, FREB27H3 and FREB28H3 or equivalent, or permission of instructor
Breadth Requirement: History, Philosophy & Cultural Studies

FRED01H3 Language practice VII: Written French
Through a review of major grammar points and the development of the necessary techniques for the production of various types of discourse (argumentative essays, summarizing, critiquing, etc.), students will be guided to work on accuracy and logical structure in written French.
Prerequisite: FREC02H3 or equivalent or permission of instructor
Exclusion: FSL431Y, FSL461Y, FSL422H or equivalent
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language
FRED06H3 Language Practice VIII: Oral French
An advanced language course designed for students who want to consolidate their oral/written skills. In-class discussions, debates and oral presentations will enhance their fluency, expand their vocabulary and improve their pronunciation. FRED06H3 is offered as a service-learning course.
Prerequisite: FREC02H3 or equivalent or permission of instructor
Exclusion: FSL443H or equivalent Enrolment Limits: 30
Breadth Requirement: Arts, Literature & Language

FRED15H3 Advanced Topics In Literature: Haitian Migrant Literature in Quebec
Novels by Haitian writers living in Quebec speak of migration, tension, marginalization, in-betweenness, belonging, the Self and the Other. This course will explore these issues through 4 novels and several other texts, all of which question our societies and encourage change.
Prerequisite: [FRED50H3 or at least one C-level literature course] or permission of instructor.

FRED46H3 Special Topics in Advanced French Syntax
A close investigation of various constructions in French and their relevance to language acquisition. Emphasis is put on syntactic contrasts between French and English, as well as theoretical and methodological implications arising from their analysis.
Prerequisite: FRED46H3
Exclusion: FRED49H3

FRED49H3 French Semantics
An examination of meaning and interpretation in the structure, function and use of the French language. The course will introduce students to approaches to the notion of meaning as applied to French data. Identification of elements of meaning, of their properties and of their combination will be discussed.
Prerequisite: FRED43H3 or FRED48H3 or FRED45H3 or LINN40H3 or permission of the instructor
Exclusion: FRED36H1, LINC12H3, (FREC49H3)
Breadth Requirement: Arts, Literature & Language

FRED02H3
FRED34H3
FRED40H3
FRED05H3
FRED07H3
FRED50H3

FRED50H3 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. Students 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. Upon 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 FRED01H3- FRED44H3, except FRED17H3 & FRED18H3.

Geography

Faculty List
E.C. Ralph, B.A., M.Phil. (London), Ph.D. (Toronto), Professor Emeritus
M. F. Bunce, B.A. (Sheffield), Ph.D. (Sheffield), Associate Professor Emeritus
J. R. Minor, B.A. (Queen's), M.A. (Yarm.), M.Sc. (phil.), Ph.D. (Toronto), Professor
M. Mahani, B.A. (Dalhousie), Ph.D. (London), Associate Professor
A. Samson, B.F.A. (Nova Scotia College of Art and Design), M.Sc., Ph.D. (London), Associate Professor
S.C. Bunce, B.A. (Galil), M.E.S. Phd. (Yale), Assistant Professor
M. Hunter, B.A. (Sussex), M.A. (Univ. of Nott.), Ph.D. (Univ California, Berkeley), Assistant Professor
T. Kaye, B.A.(soc. (York) University), M.Sc. (Goldsmiths), Ph.D. (Univ Western Cape, South Africa), Assistant Professor
M. Kwak, B.A. (Yale), M.A. (York), Assistant Professor
K. MacDonald, B.A., M.A., Ph.D. (Yale), Assistant Professor
R. Narayansund, MMSF (Yale University), Ph.D. (Minnesota), Assistant Professor
S. Tanaka, B.A., M.A., Ph.D. (Queen's), Assistant Professor

Discipline Representative: J. Minor
Undergraduate Counsellor: J. Roopnarineh E-mail: social-sciences-counsellor@uwnn.ontario.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 which 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 Development Studies. Geography courses are also listed as options in several U of T Scarborough Programs including the Co-op Program in International Development.
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 should take at least one of GGRA02H3, GGRA03H3 or GGRA04H3 in first year.

Guidelines for Major Program completion

Courses in the Major Program in Human Geography are divided into three main subdisciplinary streams: Urban Geography, Social/Cultural Geography and Environmental Geography. Major students are welcome to take courses in more than one stream and are advised to take all three of the related Theory and Concepts courses, GGRA05H3 Urban Geography, GGRA13H3 Social Geography, and GGRA20H3 Environmental Conservation and Sustainable Development.

Program Requirements

1. Theory and Concepts in Human Geography

   GGRA02H3 The Logic of Geographical Thought
   1.5 credits from:
   GGRA03H3 Urban Geography
   GGRA01H3 Social Geography
   GGRA02H3 Environmental Conservation and Sustainable Development
   GGRA03H3 Geographies of Disease

2. Methods (1.0 credit)

   ATRC15H3 Quantitative Methods in Anthropology
   ECMB11H3 Quantitative Methods in Economics I
   GGRA27H3 Introductory Analytical Methods
   GGRA27H3 Social Research Methods
   PSYB17H3 Data Analysis in Psychology
   SOCB10H3 Social Statistics
   STAB22H3 Statistics I

3. Applications (at least 2.0 credits from among the following):

   GGRA01H3 Supervised Readings in Human Geography
   GGRA02H3 Population Geography
   GGRA04H3 Urban Residential Geography
   GGRA07H3 Current Topics in Social Geography
   GGRA09H3 Urbanization and Development
   GGRA11H3 Current Topics in Urban Geography
   GGRA13H3 Urban Political Geography
   GGRA14H3 Current Topics in Environmental Geography
   GGRA22H3 Political Ecology Theory and Applications
   GGRA23H3 Land Reform and Development
   GGRA27H3 Location and Spatial Development
   GGRA29H3 Agriculture, Environment, and Development
   GGRA31H3 The Toronto Region
   GGRA41H3 Current Topics in Human Geography
   GGRA55H3 Local Geographies of Globalization
   GGRA61H3 Supervised Research Project
   GGRA62H3 Advanced Geographical Theory and Methods
   GGRA69H3 Feminist Geographies
   GGRA10H3 Health and Sexuality
   GGRA19H3 Spaces of Multiraciality: Critical Mixed Race Theory

4. 2.0 additional credits to be selected from GGRA02H3, GGRA03H3, or the courses listed in Requirements 1 and 3 above.

MINOR PROGRAM IN HUMAN GEOGRAPHY (ARTS)

Program Requirements

The requirements for this Program are 4.0 full credits in Geography which must include 1.0 full credit at the C-level or D-level.
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 1st year course selection

EES courses presume a background in physical sciences and mathematics. It is recommended that first year students take EESA01H3, EESA02H3, GGRA02H3 and GGRA03H3 and at least 1.0 full credit from among [BGGA01H3 & BGGA02H3], [CIMA11H1 & CIMA11H1], [PHYA11H3 or PHYA11H3], [MATAS03H3 & MATAS03H3], [MATAS03H3 & MATAS03H3].

Program Requirements

The Major Program in Physical and Human Geography requires the completion of a total of 8.0 full credits of which 4.0 credits are to be EES courses, and 4.0 credits are to be GGR courses. Among these 8.0 credits, the student must include:

1. EESA01H3, EESA02H3, GGRA02H3 & GGRA03H3
2. At least 1.5 credits from among EESB01H3, EESB02H3, EESS03H3, EESS04H3, EESS05H3, & EESS05H3
3. At least 1.5 credits from among [CITEB01H3 or (GGRB03H3)], GGBRB05H3, CTC03H3, GGBRB13H3, GGBRB20H3 & GGBRB25H3
4. At least 1.0 credit at the C- or D-level from among EES courses
5. At least 1.0 credit at the C- or D-level from among GGR courses
6. At least one additional 0.5 credit with a GGR prefix
7. At least one additional 0.5 credit with an EES prefix

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, (GGR107T), GGR117Y

Breadth Requirement: 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, (GGR107T), GGR117Y

Breadth Requirement: Social & Behavioural Sciences

GGRA31H3 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.

Exclusion: ESSA02H3, GGBR27H, GGBRA03H3 may not be taken after or concurrently with ESSC03H3.

Breadth Requirement: Quantitative Reasoning

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.

Exclusion: Any 4 credits Enrolment Limits: 150

Breadth Requirement: Social & Behavioural Sciences

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.

Exclusion: Any 4 credits Enrolment Limits: 150

Breadth Requirement: 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 identities.

Exclusion: Any 4 credits Enrolment Limits: 150

Breadth Requirement: Social & Behavioural Sciences

GGGB20H3 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.

Exclusion: Any 4 credits Enrolment Limits: 150

Breadth Requirement: Social & Behavioural Sciences

GGRB22H3 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.
Prerequisite: Any 4 credits
Enrolment Limit: 150
Breadth Requirement: 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, & 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.
Prerequisite: STAB22H3 & [GGRB02H3 or HLTB01H3]
Exclusion: GGR323H Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

GGRC04H3 Urban Residential Geography
Household production, household governance and contracting; household economic behaviour; housing demand, life course and housing career; housing policy and markets; dwelling maintenance and neighbourhood; social mix and segregation.
Prerequisite: STAB22H3 & [GGRB02H3 & GGRB09H3 or [CITB01H3 & CITB02H3]]
Exclusion: GGR337H Enrolment Limit: 60
Breadth Requirement: 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. Specific content will vary from year to year.
Prerequisite: GGRB02H3 & GGRB13H3
Enrolment Limit: 60
Breadth Requirement: 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.
Prerequisite: [GGRB02H3 & GGRB05H3] or [CITB01H3 & CITB02H3]
Enrolment Limit: 60
Breadth Requirement: 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. Specific content will vary from year to year.
Prerequisite: [GGRB02H3 & GGRB05H3] or [CITB01H3 & CITB02H3]
Enrolment Limit: 60
Breadth Requirement: 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.
Prerequisite: [GGRB02H3 & GGRB05H3] or [CITB01H3 & CITB02H3]
Enrolment Limit: 60
Breadth Requirement: 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. Specific content will vary from year to year.
Prerequisite: GGRB02H3 & GGRB20H3
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

GGRC22H3 Political Ecology Theory and Applications
Explores how politics, the economy, history and culture shape, and are shaped by interactions of people with the physical environment. Analysis moves beyond the roles government and interest groups in shaping environmental policies, to expanding our understanding of 'politics' in (i) environmental discourses and knowledge; (ii) economic systems; (iii) regimes of natural resource ownership and use; and (iv) everyday struggles within and between communities and interest groups as they shape human-nature relationships.
Prerequisite: GGRB02H3 & [GGRB05H3 or IDSB02H3]
Enrolment Limit: 60
Breadth Requirement: 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.
Prerequisite: GGRB02H3 & [GGRB13H3 & GGRB20H3] or [IDSB01H3 & IDSB02H3]
Exclusion: GGR29H3
Enrolment Limit: 60
Breadth Requirement: 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; location competition; equilibrium for an industry; trade and location.
Prerequisite: ECM01H3 & [GGRB02H3 & GGRB05H3] or [CITB01H3 & CITB02H3] or [ECMB01H3 or ECMB02H3] & [ECMB05H3 or ECOM06H3]
Exclusion: GGR27H3, GGR2201
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences
GGRCC29H3 Agriculture, Environment and Development
Changing social, economic and environmental relations of agriculture in the late twentieth century. Includes: expansion of global agribusiness, how this has affected conditions of agriculture at the farm and regional level and problems of achieving sustainable agriculture and food systems in an international development context. Prerequisite: GGRB02H3 & One of ANTC39H1, ANTC39H3, ANTC64H1, IDS01H3, IDS02H3, GGRB02H1). Enrolment Limit: 50
Breadth Requirement: Social & Behavioural Sciences

GGRCC33H3 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. Prerequisite: [GGRB02H3 & GGRB05H3] or [CTZ01H3 or GGRB06H3]. Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

GGRCC41H3 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. Specific content will vary from year to year. Seminar format with active student participation. Prerequisite: [GGRB02H3 & GGRB05H3] or [GGRB02H3 & one B-level full-credit in Human Geography]. Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

GGRCC45H3 Local Geographies of Globalization
Examines the localized consequences of global processes. Toronto will be used as a case study to understand how individuals interact with and experience the effects of globalization forces differently based on their unique conditions of life and how they respond to the challenges and opportunities of a globalized world. Prerequisite: [GGRB02H3 & [GGRB05H3 or GGRB02H3 or ANTB16H3 or IDS01H3]]. Enrolment Limit: 60
Breadth Requirement: 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: 15 full credits including completion of the following requirements for the Major Program in Human Geography: 1) Introduction, 2) Theory and Concepts, 3) Methods, & a cumulative GPA of at least 2.5.

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. Prerequisite: GGRB02H3 & [GGRB13H3 & GGRC30H3] or WSTA01H3]. Enrolment Limit: 25
Breadth Requirement: 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. Prerequisite: GGRB02H3 & GGRB13H3 or GGRB28H3 & [GGRC20H3 or GGRD19H3] or [HLET02H3 & ANTC19H3]. Enrolment Limit: 25
Breadth Requirement: 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: 15 full credits including completion of the following requirements for the Major Program in Human Geography: 1) Introduction, 2) Theory and Concepts, 3) Methods. Priority will be given to Geography Majors with the highest GPA. Enrolment Limit: 25. Restricted to Human Geography Major students.
Breadth Requirement: 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. Specific content will vary from year to year. Seminar format with active student participation. Prerequisite: 15 full credits including completion of the following requirements for the Major Program in Human Geography: 1) Introduction, 2) Theory and Concepts, 3) Methods. Priority will be given to Geography Majors with the highest GPA. Enrolment Limit: 25. Restricted to Human Geography Major students.

GGRD19H3 Spaces of Multiraciality: Critical Mixed Race Theory
From Tige Roberts to Marion Cary, 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. Prerequisite: ANTB16H3 or GGRB12H3 or IDS01H3 or SOCA01H3 or WSTA01H3 or permission of instructor. Exclusion: GGRAC19H3
Enrolment Limit: 25
Breadth Requirement: Social & Behavioural Sciences
Global Asia Studies

Faculty List
P-C. Hoang, B.A. (National Chiao-tung), M.A. (Chinese Cultural), M.A., Ph.D. (UCLA), Associate Professor
R. Bai, B.A., M.A. (Beijing Foreign Studies), Ph.D. (Illinois), Assistant Professor
L. Chen, B.A. (Beijing Foreign Studies), M.A. (SUNY Buffalo), J.D.(Illinois), M.A., Ph.D. (Columbia), Assistant Professor
J. Park, B.A., M.A. (Harvard University), B.S., Ph.D. (Illinois), Assistant Professor
J. Sharma, B.A. (Lady Shri Ram), M.A. (Hindu), M.Phil (Delhi, Ph.D. (Canah), Assistant Professor
H.C.H. Shin, B.A., M.A., Ph.D. (Toronto), Assistant Professor
C. Ving, B.A. (UC Berkeley), M.A., Ph.D. (Harvard), Assistant Professor
H.X. Wu, M.A., Ph.D. (Toronto), Senior Lecturer
E. Mills, B.Sc. (London), B.A. (Oxford), Ph.D. Candidate (Oxford), Lecturer
N. Sajid, B.A., M.A., M. Phil. (JNU), Lecturer
S.L.V. Wang, B.A., M.A., Ph.D. (Hawaii), Lecturer

Program Director: J. Sharma Email: sharma@utsc.utoronto.ca

Global Asia Studies (GAS) is an inter-disciplinary undergraduate program that places Asia within a dynamic global and diasporic context. It enhances our understanding of historical and contemporary global culture and politics by enabling students to engage with an extensive and intensive study of Asia and Asian Diaspora in the past and present. Global Asia Studies uses cutting-edge Humanities methods and theories from a range of different disciplines to explore the societies of East and South Asia and their global ramifications. It aims to locate the academic study of Asia within the fabric of the community through exciting co- and extra-curricular programming and a commitment to socially responsible and educationally rigorous experiential learning.

The curriculum combines a variety of approaches. The first year A-level courses GAS401H3 and GAS402H3 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 GASB101H3.

In C-level courses, students investigate specific areas and problems pertaining to East and South Asia in greater depth. These courses are conducted in lecture and tutorial discussion format. For example, see courses such as GAS320H3. 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 Global Asia Studies minor is designed for those students who wish to acquire a broader general knowledge of Asian societies and cultures. See requirements below.

The Global Asia Studies major and specialist programs are designed for those students who wish to acquire more in-depth knowledge of Asia that spans a number of disciplines 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 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 include Hindi, Tamil, Sanskrit, Mandarin Chinese (simplified and classical), Korean, and Japanese, if they are offered at UTSC. Currently students should get the Program Director's written approval before taking any course of such languages if offered outside UTSC, or before taking any course of other Asian languages not listed above. For new students who have studied any of the listed Asian languages offered outside UTSC before joining Global Asia Studies, the Program Director will determine how much credit should be recognized on a case by case basis. On a case by case basis, the program accepts other Asian languages. See specific requirements below.

Guidelines for 1st year course selection
Students who intend to complete a Global Asia Studies program should include GAS401H3 & GAS402H3 in their 1st year course selection. Students are also strongly encouraged to take HUMA01H3 (Exploring Key Questions in Humanities) as early as possible in their studies.

The Global Asia Studies Study Guide is available at: www.uts.c.utoronto.ca/~humdiv/prg_ga.html

SPECIAL 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 full credits including at least 4.0 B- and/or D-level credits of which at least 1.0 credit must be at the D-level as follows:

1. 1.0 credit must come from:
   GAS401H3 Introduction to Global Asia I
   &
   GAS402H3 Introduction to Global Asia II

2. 4.0 credits should be from any of the GAS core courses below:
   GASB01H3 Methodologies and Issues in Global Asia Studies
   GASB101H3 Introduction to South Asian Literatures

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   J. Sharma
An additional 2.5 credits can be from the above GAS core courses or from the electives below:

- GASB0513 Media and Globalization (formerly HUMB74H3)
- GASB6703 Religion in the Arts: Buddhist Arts and Cultures
- GASB7313 Visualizing Asia
- GASB7513 Religion in the Arts: Hinduism and Jainism
- GASC121H3 Contemporary Engaged Buddhist Movements in Asia
- GASC191H3 Gender in East Asian Science and Technology
- GASC251H3 The Silk Routes
- GASC743H3 A Tale of Three Cities: Introduction to Contemporary Art in China

An additional 2.5 full credits should be from Asian language courses taught at the university, of which at least 1.5 credits should be from such courses taken at the B, C, or D-levels. Preferably, those language courses will be taken in sequence as far as is practicable. The aim is for students to acquire linguistic competence in one or more Asian languages to aid in his or her future professional development. The GAS program director will guide GAS students in choosing from the Asian language courses offered at the university, especially if they face challenges in finding suitable upper-level courses in these languages.

MAJOR PROGRAM IN GLOBAL ASIA STUDIES (ARTS)

Undergraduate Advisor: 416-287-7184 Email: gas-undergrad-advisor@utsc.utoronto.ca

Program Requirements

Students must complete 7.5 full credits of which at least 2.0 must be at the C- and/or D-level as follows:

1. 1.0 credit must come from:
   - GASA01H3 Introduction to Global Asia I
   - GASA02H3 Introduction to Global Asia II

2. 2.5 credits should be from any of the GAS core courses below:
   - GASB101H3 Methodologies and Issues in Global Asia Studies
   - GASB108H3 Introduction to South Asian Literatures
   - GASB111H3 Introduction to Chinese Literature
   - GASB201H3 Gender and Social Institutions in Asia
   - GASB301H3 Asian Religions and Cultures
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GASB31H3 Chinese Thought and Culture in Historical Perspective
GASB33H3 Global Buddhism in Historical and Contemporary Societies
GASB35H3 Culture and Society in Classical South Asia
GASB35H3 The Japanese Empire: A Short History
GASB37H3 Sub-Continental Histories: South Asia in the World
GASB38H3 Modern Chinese History
GASC20H3 Gendering Global Asia
GASC31H3 Self and Imagination in Pre-modern China
GASC32H3 Art of Memory: China and the West
GASC33H3 Critical Perspectives in Global Buddhism
GASC34H3 Texts and Learning in Classical South Asia
GASC40H3 Chinese Media and Politics
GASC41H3 Media and Popular Culture in East and Southeast Asia
GASC42H3 Film and Popular Culture in South Asia
GASC43H3 Colonialism and Cultures in Modern East Asia
GASC50H4 Comparative Studies of East Asian Legal Cultures
GASC51H3 Politics and Culture in Modern South Asia
GASC57H3 China and the World

3. An additional 1.0 credits can be from the above GAS core courses or from the electives below:
GASB60H3 Media and Globalization (formerly HUMD74H3)
GASB67H3 Religion in the Arts: Buddhist Arts and Cultures
GASC37H3 Visualizing Asia
GASC37H3 Religion in the Arts: Hinduism and Jainism
GASC38H3 Contemporary Engaged Buddhist Movements in Asia
GASC39H3 Gender in East Asian Science and Technology
GASC39H3 The Silk Routes
GASC74H3 A Tale of Three Cities: Introduction to Contemporary Art in China

4. At least 1.0 credits from any of the D-level courses listed below:
GASD30H3 Senior Seminar: Topics in Global Asian Cultures
GASD32H3 Senior Seminar: Social Change and Gender Relations in Chinese Societies
GASD34H3 Senior Seminar: Issues in Chinese Media Studies
GASD46H3 Visual Encounter: The Meeting of Eastern and Western Art
GASD50H3 Senior Seminar: Social and Cultural Aspects of South Asian Societies
GASD51H3 "Coolies" and Others: Asian Labouring Diasporas in the British Empire
GASD53H3 Culture, Politics, and Society in Late Imperial China
GASD59H3 Law and Society in Chinese History

5. An additional 2.0 full credits should be from Asian language courses taught at the university, of which at least 1.0 credit should be from such courses taken at the H, C, or D levels. Preferably, these language courses will be taken in sequence as far as is practicable. The aim is for students to acquire linguistic competence in one or more Asian languages to aid in his or her future professional development. The GAS program director will guide GAS students in choosing from the Asian language courses offered at the university, especially if they face challenges in finding suitable upper-level courses in these languages.

MINOR PROGRAM IN GLOBAL ASIA STUDIES (ARTS)
Undergraduate Advisor: 416-287-7184 E-mail: gas-undergrad-advisor@scs.utoronto.ca

Program Requirements
Students must complete 4.0 full credits as follows:

1. 1.0 credit must come from:
GASA10H3 Introduction to Global Asia I
&
GASA20H3 Introduction to Global Asia II

2. For the remaining 3.0 credits students have two options to meet the requirements. One option is to complete 3.0 credits from the following courses (including at least 1.5 credits from C- or D-levels). The other option is to complete 2.0 credits from the following courses (including at least 1.0 credit from C- or D-levels), in addition to 1.0 credit from Asian language courses.
GASB10H3 Methodologies and Issues in Global Asia Studies
GASB10H3 Introduction to South Asian Literatures
GASB11H3 Introduction to Chinese Literature
GASB20H3 Gender and Social Institutions in Asia
GASB30H3 Asian Religions and Cultures
GASB31H3 Chinese Thought and Culture in Historical Perspective
GASB33H3 Global Buddhism in Historical and Contemporary Societies
GASB34H3 Culture and Society in Classical South Asia
GASB35H3 The Japanese Empire: A Short History
GASB37H3 Sub-Continental Histories: South Asia in the World
GASB55H3 Modern Chinese History
GASB60H3 Religion in the Arts: Buddhist Arts and Cultures
GASB73H3 Visualizing Asia
GASB75H3 Religion in the Arts: Hinduism and Jainism
GASc2H3 Contemporary Engaged Buddhist Movements in Asia
GASC19H3 Gender in East Asian Science and Technology
GASC20H3 Gendering Global Asia
GASC21H3 Self and Imagination in Pre-modern China
GASC32H3 Art of Memory: China and the West
GASC35H3 Critical Perspectives in Global Buddhism
GASC40H4 Texts and Learning in Classical South Asia
GASC46H1 Chinese Media and Politics
GASC47H3 Media and Popular Culture in East and Southeast Asia
GASC48H1 Film and Popular Culture in South Asia
GASC49H3 Colonialisms and Cultures in Modern East Asia
GASC50H1 Comparative Studies of East Asian Legal Cultures
GASC51H1 Politics and Culture in Modern South Asia
GASC53H1 The Silk Routes
GASC73H3 China and the World
GASC74H1 A Tale of Three Cities: Introduction to Contemporary Art in China
GASD01H3 Senior Seminar: Topics in Global Asian Cultures
GASD02H3 Senior Seminar: Topics in Global Asian Societies
GASD03H3 Senior Seminar: Social Change and Gender Relations in Chinese Societies
GASD06H3 Senior Seminar: Issues in Chinese Media Studies
GASD06H4 Visual Encounter: The Meeting of Eastern and Western Art
GASD05H3 Senior Seminar: Social and Cultural Aspects of South Asian Societies
GASD06H3 'Coolies' and Others: Asian Labouring Diasporas in the British Empire
GASD08H3 Culture, Politics, and Society in Late Imperial China
GASD09H3 Law and Society in Chinese History
(VPHC55H3) Religion in the Arts: Sensitivities in Buddhism and Art

GASAO1H3 Introduction to Global Asia I
This course introduces Global Asia Studies through studying historical and political perspectives on Asia. Students will learn how to critically analyze major historical events and to better understand important cultural, political, and social phenomena involving Asia and the world. They will engage in intensive reading and writing for humanities, serve as RSA10H3. Exclusion: HES060H3
Breadth Requirement: History, Philosophy & Cultural Studies

GASAO2H3 Introduction to Global Asia II
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 Requirement: Arts, Literature & Language

GASBO1H3 Methodologies and Issues in Global Asia Studies
This course introduces Global Asia Studies through studying methodologies and issues pertaining to the histories, societies, and cultures of Asia, with specific reference to East and South Asia, and their diasporas. This course is recommended for Global Asia Studies specialists and majors. They will engage in intensive reading and writing for humanities.
Prerequisite: GASAO1H3 or GASAO2H3
Breadth Requirement: History, Philosophy & Cultural Studies

GASBO5H3 Media and Globalization
This course introduces students to the variety of ways cultural and social theorists have addressed notions of "globalization" and the media, and to focus their eyes and research concerns on media systems and practices in the non-western world: Asian, Latin American, and Arabic countries. Same as MDSB15H3.
Exclusion: (HUMR71H3), MDSB15H3
Breadth Requirement: History, Philosophy & Cultural Studies

GASBR1H4 Introduction to South Asian Literatures
This course introduces students to a range of languages and literatures from South Asia and its regions and provides important cultural insights into these societies. Students also hone their skills in critical reading and writing. The primary texts for the course are translated into English from different South Asian languages.
Breadth Requirement: Arts, Literature & Language

GASBR1H5 Introduction to Chinese Literature
This course offers a historical overview of Chinese literature and concepts of literary theory. It surveys selected Chinese literature texts with a critical analysis of different genres in socio-political and intellectual contexts. It is conducted in
English, with primary texts translated from Chinese into English.

Breadth Requirement: Arts, Literature & Language

GASB203H3 Gender and Social Institutions in Asia
This course examines the role of gender in shaping social institutions in Asia. 
Breadth Requirement: History, Philosophy & Cultural Studies

GASB303H3 Asian Religions and Culture
This course examines the close relationship between religious and cultural traditions, and the role they play in shaping the worldviews, aesthetics, ethical norms, and social ideals in Asian countries and societies. 
Breadth Requirement: History, Philosophy & Cultural Studies

GASB313H3 Chinese Thought and Culture in Historical Perspective
This course surveys the history of thought and intellectual culture in China from the 7th through the 17th centuries. Topics studied include: the establishment of empires; literate culture; Neo-Confucianism; aesthetics and landscape painting; the literature of desire; and the contact with the West through Christianity. 
Exclusion: EAS213H4
Breadth Requirement: History, Philosophy & Cultural Studies

GASB323H3 Global Buddhism in Historical and Contemporary Societies
This course examines the global spread of different versions of Buddhism across historical and contemporary societies. 
Prerequisite: GASB303H3 or RLGB203H3 or (GASB301H3 or VPHR11H3) 
Breadth Requirement: History, Philosophy & Cultural Studies

GASB343H3 Culture and Society in Classical South Asia
The course will map out the South Asian Classical world, using Sanskrit texts translated into English, spanning a period from 1000 BCE to 1000 CE. The lives of the men and women of that world, and the roles they played in family and wider society will come vividly to life in their own words. 
Corequisite: HISB271H3
Breadth Requirement: History, Philosophy & Cultural Studies

GASB353H3 The Japanese Empire: A Short History
This course introduces the history and culture of the Japanese Empire. It examines the origin and development of modern Japanese colonialism and its legacies in East and Southeast Asia. 
Breadth Requirement: History, Philosophy & Cultural Studies

GASB373H3 Sub-Continental Histories: South Asia in the World
A survey of South Asian history, from ancient times to the present day. The course explores diverse and exciting elements of this long history, such as ecology and landscape, religion, trade, literature, and the arts, keeping in mind South Asia’s global and diasporic connections. Africa and Asia Area. Same as HISB573H3. 
Exclusion: HIS252Y, HIS252H3, HISB573H3
Breadth Requirement: History, Philosophy & Cultural Studies

GASB555H3 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. Asia and Asia Area. Same as HISB558H3. 
Exclusion: HIS250Y, HISB555H3
Breadth Requirement: History, Philosophy & Cultural Studies

GASB671H3 Religion in the Arts: Buddhist Arts and Cultures
This course will serve as an introduction to the field of religious art historiography, with an emphasis on the relationships between visual arts, Buddhist philosophy and religion, and the cultural manifestations of the faith and its arts across the world. The classes will take advantage of collections at the ROM. Same as VPHB671H3. 
Exclusion: VPHB671H3
Breadth Requirement: Arts, Literature & Language

GASB701H3 Images of Women: East Asian Visual Culture
Images of women in East Asia both provoked and became products of changing ideas of tradition, history and nation. Covering a wide variety of media, including painting, prints, photography, and film, this course examines the role of gender images in politics, the impact of imagery on daily experience, and the relationships among artist, image and viewer. 
Same as VPHB701H1. 
Prerequisite: VPH264H3, GAS201H3, or WST401H3 
Exclusion: VCC202H1, VCC304H1, VPHB701H3
Breadth Requirement: Arts, Literature & Language

GASB753H3 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, textiles, and prints. Special attention will be given to social contexts, belief systems, and regional exchanges. 
Same as VPHB753H3. 
Prerequisite: VPA205H3, VPH140H3, or GAS201H3 
Exclusion: VPHB753H3, VPH140H3, or GAS201H3
Breadth Requirement: Arts, Literature & Language

GASB755H3 Religion in the Arts: Hinduism and Jainism
This course explores Eastern religions and artworks, with a specific focus on Hinduism and Jainism in art from India, Pakistan and Sri Lanka. Investigation of content, use, and symbolism, paralleled with the examination of rituals, beliefs and performance. The classes will take advantage of collections at the ROM. Same as VPHB755H3. 
Exclusion: VPHB555H3, VPHB753H3, (VPHC553H3) 
Breadth Requirement: Arts, Literature & Language

GASC123H3 Contemporary Engaged Buddhist Movement in Asia
The course will introduce a comprehensive survey of Engaged Buddhism, which calls for the need to apply traditional Buddhist teachings to improve our society. Focus will be on the contemporary engaged Buddhist movements in Vietnam, Tibet, China, Taiwan, Sri Lanka, Thailand and India. Same as RLGC123H3.
GASC19H3 Gender in East Asian Science and Technology
This course examines how gender issues influence the history and contemporary development of science and technology in East Asian societies, including China, Japan, and Korea. Students will gain a critical perspective on the role of gender in shaping scientific knowledge and technological advancements in the context of East Asia. Same as IEEC32H3, WSTC19H3
Prerequisite: Any 5.0 full credits
Exclusion: IEEC25H3, WSTC19H3
Recommended Preparation: [WSTA01H3 & WSTA03H3] or [GASA01H3 & GASA02H3] or GASA01H3
Enrolment Limit: 50
Breadth Requirement: Social & Behavioural Sciences

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: GASA01H3 or GASA02H3 or permission of instructor
Enrolment Limit: 50
Breadth Requirement: History, Philosophy & Cultural Studies

GASC31H3 Self and Imagination in Pre-modern China
This course explores the evolving history of how the self was conceived in pre-modern China (from antiquity to the 12th century). Works studied include: Warring States philosophical treatises; Buddhist and Daoist texts on meditation and self-cultivation; literary theory and poetry; philosophical prose essays by literati; and painting.
Prerequisite: GASA01H3 or GASA02H3 or permission of instructor
Exclusion: EAS43H4
Enrolment Limit: 50
Breadth Requirement: History, Philosophy & Cultural Studies

GASC32H3 Art of Memory: China and the West
This course explores how thinkers in pre-modern China and Europe (from antiquity to the thirteenth century) conceived of memory. Reading through parallels as well as divergences, this course invites reflection on how thinking about memory is bound up with thinking about the self and about the sources of subjective identity.
Prerequisite: GASA01H3 or GASA02H3 or permission of instructor
Enrolment Limit: 50
Breadth Requirement: History, Philosophy & Cultural Studies

GASC33H3 Critical Perspectives in Global Buddhism
This course critically examines different aspects of Buddhism in global context. It is offered as part of the prestigious TKY Visiting Professor program.
Prerequisite: GASA01H3 or GASA02H3 or RLGA01H3 or permission of instructor

GASC34H3 Texts and Learning in Classical South Asia
The course will examine four fields of learning in the South Asian classical world: medicine; law; management and policy; and architecture. Using Sanskrit texts translated into English, the elements of these technical literatures will be set out, and discussed in comparison with parallel systems, both in Asia and the west.
Recommended Preparation: GASA34H3 Enrolment Limit: 50
Breadth Requirement: 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.
Prerequisite: GASA01H3 or GASA02H3 or permission of instructor Enrolment Limit: 50
Breadth Requirement: History, Philosophy & Cultural Studies

GASC41H3 Media and Popular Culture in East and Southeast Asia
This course introduces students to media industries and commercial popular cultural forms in East and Southeast Asia. Topics include reality TV, TV dramas, anime, and mangas as well as issues such as regional cultural flows, global impact of Asian popular culture, and the localisation of global media in Asia. Same as RUCF35H3.
Prerequisite: GASA01H3 or GASA02H3 or MDAS01H3 or MDAS05H3 or HUMC104H3 or (NMEA207H3) or permission of instructor
Exclusion: HUMC54H1
Enrolment Limit: 50
Breadth Requirement: 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 film 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: GASA01H3 or GASA02H3 or permission of instructor Enrolment Limit: 50
Breadth Requirement: Arts, Literature & Language

GASC43H3 Colonialisms and Cultures in Modern East Asia
This course explores Japanese colonialism and its cultures in East Asia. It seeks to understand the central role that culture played in 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 5 credits including GASA01H3 or GASA02H3 or GASA05H3 or GASA07H3 or HISB05H3 or HISB07H3 or permission of instructor
Recommended Preparation: GASA05H3
Enrolment Limit: 50
Breadth Requirement: History, Philosophy & Cultural Studies
Global Asia Studies 147

GASC504H3 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 HISC546H3.
Prerequisite: HIRSB33H3 or an equivalent B-level history course in East Asia or permission of instructor
Exclusion: HISC546H3
Enrollment Limit: 40
Breadth Requirement: History, Philosophy & Cultural Studies

GASC517H1 Politics and Culture in Modern South Asia
This course studies the history of modern South Asia with an emphasis on the interplay of politics and culture as the region moved towards distinctive forms of Asian modernity and post-coloniality over the nineteenth and twentieth centuries.
Prerequisite: HIRSB37H3 or an equivalent B-level history course in East or South Asia or permission of instructor
Enrollment Limit: 50
Breadth Requirement: History, Philosophy & Cultural Studies

GASC533H3 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 at T.F. Scarborough will focus on the art produced along the Silk Routes in 7th to 9th century Afghanistan, India, and the Taklamakan regions.
Same as VPAC533H3.
Prerequisite: One full credit in art history or in Asian or medieval European history or permission of instructor
Exclusion: VPAC533H3
Breadth Requirement: Arts, Literature & Language

GASC571H1 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 diasporic, scientific/technological exchanges, and cultural encounters and conflicts in the age of empire and globalization.
Africa and Asia Area.
Same as HISC571H3.
Prerequisite: At least 4.0 credits completed.
Exclusion: HISC571H3
Recommence Preparation: HIRSB36H3
Enrollment Limit: 40
Breadth Requirement: History, Philosophy & Cultural Studies

GASC740H1 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 VPAC740H3.
Prerequisite: 2 full credits at the B-level in Art History, Asian History, and/or Global Asia Studies, including at least one of VPAC539H3, VPAC571H3, HIRSB36H3, GASC517H3, GASC533H3, or GASC563H3
Exclusion: VPAC740H3
Breadth Requirement: Arts, Literature & Language

GASC813H3 Senior Seminar: Topics in Global Asian Cultures
This course offers an in-depth study of important cultural issues in historical and contemporary Asian and diasporic societies. Themes for study include music, art, cinema, media, literature, drama, and representations. It is conducted in seminar format with emphasis on discussion, critical reading, and writing of research papers.
Prerequisite: [GAS0A1H3 & GAS0A2H3] & one C-level course from the options in the specialist or major program requirement 1) or permission of instructor.
Enrollment Limit: 15

GASC813H3 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: [GAS0A1H3 & GAS0A2H3] & one C-level course from the options in the specialist or major program requirement 2) or permission of instructor.
Enrollment Limit: 15

GASC860H3 Senior 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.
Prerequisite: [GAS0A1H3 & GAS0A2H3] & one C-level course from the options in the specialist or major program requirement 2) or permission of instructor.
Enrollment Limit: 15

GASC840H3 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 has had strong political and cultural implications. This senior seminar course examines the complex and dynamic interplay of media and politics in contemporary China.
Prerequisite: [GAS0A1H3 & GAS0A2H3] & one C-level course from the options in the specialist or major program requirement 2) or permission of instructor.
Enrollment Limit: 15

GASC840H3 Visual Encounter: The Meeting of Eastern and Western Art
This course explores the cultural construction of vision with a particular focus on the encounters between two cultural systems: Euro-American and East Asian. The collision of West and East yielded dramatic results in the realm of visual culture, altering the ways of seeing. Same as VPAC840H3.
Prerequisite: 11 full credits, including at least one of VPAC539H3, VPAC571H3, HIRSB36H3, GASC517H3,
Health Studies

Faculty List
F.D. Burton, B.Sc., M.A. (NYU), Ph.D. (CUNY), Professor Emeritus
A.E. Him, B.A. (Harvard), M.A. (University of Canterbury), Sc.D. (Johns Hopkins), Associate Professor
C. Baraka, B.Sc. (Toronto), M.S.S. (York), Ph.D. (McMaster), Assistant Professor
T. Bryant, B.A., M.S.W., Ph.D. (Toronto), Assistant Professor
M. Hunter, B.A. (Saskatchewan), M.A. (Univ. of Natal), Ph.D. (Univ California, Berkeley), Assistant Professor
M. Silver, B.A., B.S., M.P.P. (Univ California, Berkeley), Ph.D. (Univ of Chicago), Assistant Professor
Undergraduate Counsellor: J. Reimers
Email: social sciences.counsellor@utecheartt.utoronto.ca

Health is an extremely important area of study, from a biological, social, and policy perspective. Social scientists consider a wide range of questions, such as: How does individual behaviour affect health? How can we design health care systems and public policy so as to promote health? How does health vary over the life course and between men and women? What can be learned from large-scale survey data about health patterns and the health of populations? The Health Studies Program combines relevant courses from a range of disciplines of interest to students who may apply to graduate programs in health and work in health and related professions. Students in Health Studies are encouraged to combine their program with another major in a relevant discipline.

Guidelines for 1st year course selection
Students intending to complete a program in Health Studies should take one of the following sets of courses in first year:

[ANTAO10H & ANTA02H] or [BOYA00H & BOYA02H] or [BOYCA30H & ECBMA15H & ECBMA05H] or [GRGAA02H & GRGAA03H] or [PSYAA01H & PSYMA02H] or [SOCAA01H & SOCA01H]

Note: It is Department policy that students must meet all relevant prerequisites, exceptions will be made only in the case of special circumstances. Students should check carefully the prerequisites required for particular B- and C-level courses. Note that some courses (e.g., BRO, ECM & SOC) are part of limited enrolment programs, with first preference in these courses going to students enrolled in those programs.
MAJOR (CO-OPERATIVE) PROGRAM IN HEALTH STUDIES (ARTS/SCIENCE)
Co-op Contact: sadcoop@uncvu.utoronto.ca

Program Admission
This is a limited enrolment program, which must be completed in conjunction with another Major as part of a 4-year degree. For information on admissions, fees, work terms, and standing in the program, please see the Co-operative Programs section of this Calendar.

Minimum qualifications for entry following first year: 4.0 credits, including 1.0 from [ANTA01H3 & ANTA02H3] or [BI0A01H3 & BI0A02H3] or [ECMA01H3 & ECMA02H3] or [EGRB03H3 & GGRA03H3] or [PSYB03H3 & PSYB02H3] or [SOC(A01H3 & SOC(A02H3), plus a cumulative GPA of at least 2.5.

Program Requirements
Work terms will be in the health and health-related sectors, and may be in public institutions, research institutions, and in the private sector. There are two work terms, each of 4 months. In order to be eligible for the first work term, students must complete at least 9 full credits, including the requirement in sections 1 and 2 plus any 1.0 credit from among requirements 3 and 4 below. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term.

Course Requirements
See requirements for Major Program in Health Studies. In addition, students are required to include HLTD02H3, Health Research Seminar.

MAJOR PROGRAM IN HEALTH STUDIES (ARTS/SCIENCE)

Program Requirements
This program requires a minimum of 7.5 full credits as follows:

Note: A single course may be applied to one requirement only even if it is listed more than once.

1. Background Courses and Methodology
1.5 credits from one of the following groups:
- [ANTA01H3 & ANTA02H3 & ANTC06H3]
- [BI0A01H3 & BI0A02H3 & BI0B01H3]
- [ECMA01H3 & ECMA02H3 & ECMB01H3]
- [EGRB03H3 & GGRA03H3 & GGRB05H3]
- [PSYB03H3 & PSYB02H3 & PSYB01H3]
- [SOC(A01H3 & SOC(A02H3 & SOC(B03H3)

2. Specialized Methods in Health Studies (1.0 credit as follows)
HLTA01H3 Introduction to Research in Health Studies
HLTB01H3 Introduction to Quantitative and Qualitative Research Methods in Health Studies
Note: HLTB01H3 will be offered in the first time in 2013/2014 and will require HLTA01H3 as a prerequisite.

3. Introduction to Health (3.0 credits)
1.5 credits as follows:
HLTA01H3 Plagues & People
HLTB03H3 Foundations in Health Studies
HLTB04H3 Health, Aging & the Life Cycle or HLTB02H3 Issues in Child Health & Development or HLTB04H3 Health & the Urban Environment
and
1.5 credits from:
ANTB11H3 Biological Anthropology: Beginnings
ANTB12H3 Contemporary Human Evolution and Variation
ANTB19H3 Ethnography and the Comparative Study of Human Societies
ANTB20H3 Culture, Politics and Globalization
ANTB84H3 The Anthropology of Food: Consuming Passions
EES(A)01H3 Human Health and the Environment
GGRB02H3 Geographies of Disease
HLTB01H3 Health, Aging and the Life Cycle
150 Health Studies

HLTH02H3 Issues in Child Health and Development
HLTH04H3 Health and the Urban Environment
IDSH40H3 International Health Policy Analysis
PHIL089H3 Biomedical Ethics
PSTY02H3 Abnormal Psychology
PSYH03H3 Human Brain and Behaviour

4. Advanced Health Courses
At least 1.5 credits from:
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
ANTC62H3 Medical Anthropology: Biological and Demographic Perspectives
ANTC63H3 The Anthropology of Food: Human Needs
ANTC67H3 Foundations of Epidemiology
ANTC68H3 Destructuring Epidemics
ANTD01H3 The Body in Culture and Society
ANTD17H3 Medical Ontology: Public Health Perspectives on Human Skeletal Health
ANTD22H3 Ethnomedicines
ANTD25H3 Primatology: Public Health Perspectives on Zoonotic Diseases
BIOL171H3 Microbiology I: The Bacterial Cell
BIOL221H3 Vertebrate Histology: Cells and Tissues
BIOG222H3 Vertebrate Histology: Organs
ECOM34H4 Economics of Health Care
GEPD10H3 Health and Sexuality
HLTC01H3 Directed Research on Health Services and Institutions
HLTC02H3 Women and Health: Past and Present
HLTC03H3 The Politics of Canadian Health Policy
HLTD01H3 Directed Readings in Health Studies
HLTD02H3 Health Research Seminar
IDSH11H3 Issues in International Health
NROG07H3 Psychobiology of Aging

5. 0.5 credit from:
HLTC01H3 Directed Research on Health Services and Institutions
HLTD02H3 Women and Health: Past and Present
HLTD03H3 The Politics of Canadian Health Policy
HLTD01H3 Directed Readings in Health Studies
HLTD02H3 Health Research Seminar
ANTC67H3 Foundations of Epidemiology
ANTC68H3 Destructuring Epidemics

6. For this program, no more than 4.0 credits can be counted from any single course prefix (e.g., ANT) other than HLTH.

7. For the Major in Health Studies alone to qualify for B.Sc. Major, at least 5.0 credits taken to complete the program must carry science credit. These include HLTH01H3, HLTH02H3, any Anthropology option listed as a science credit in the Anthropology section of the Calendar, and any option in Biology, Environmental Science, Neuroscience, Psychology, and Statistics.

Note: Students should check carefully the prerequisites required for particular B- and C-level courses. Note that some courses (e.g., BIO, ECM & SOC) are part of limited enrolment programs, with first preference in these courses going to students enrolled in those programs.

MINOR PROGRAM IN HEALTH STUDIES (ARTBS)

Program Requirements
This program requires 4 full credits as follows:

1. Introduction to Health (2.5 credits)
   1.0 full credit as follows:
   HLTD01H3 Plagues and Peoples
   HLTD03H3 Foundations in Health Studies

and
1.5 full credits from:
ANTB14H3 Biological Anthropology: Beginnings
ANTB15H3 Contemporary Human Evolution and Variation
ANTB16H3 The Anthropology of Food: Consuming Passions
GEOG283H3 Geographies of Disease
HLTH01H3 Health, Aging and the Life Cycle
HLTH02H3 Issues in Child Health and Development
HLTH04H3 Health and the Urban Environment
IDSH40H3 International Health Policy Analysis
2. Advanced Health
1.5 full credits from:
ANTC6103 Medical Anthropology: Illness and Healing in Cultural Perspective
ANTC6203 Medical Anthropology: Biological and Demographic Perspectives
(ANTC6303) The Anthropology of Food: Human Needs
ANTC6703 Foundations of Epidemiology
ANTC6803 Deconstructing Epidemics
ANTD6003 The Body in Culture and Society
ANTD7003 Medical Zoology: Public Health Perspectives on Human Skulls
(ANTD2303) Ethnomedicine
ANTD7203 Primatology: Public Health Perspectives on Zoonotic Diseases
ECMC3403 Economics of Health Care
GQGD1003 Health and Sexuality
HLCM0413 Directed Research on Health Services and Institutions
HLCM0403 Women and Health: Past and Present
HLCM0401 The Politics of Canadian Health Policy
HLDT0103 Directed Readings in Health Studies
IDSCH103 Issues in International Health

3. For this program, no more than 2.0 full credits can be counted from any single course prefix (e.g., ANT) other than HLT.

HLTB0303 Foundations in Health Studies
This course is 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: HLTB0103
Corequisite: HLTB0103 or HLTB0203
Recommended Preparation: High School Biology is advisable
Breadth Requirement: Social & Behavioural Sciences

HLTB0403 Health and the Urban Environment
Described literally as "anachronisms of humankind", urban centres prior to 1900 subjected their inhabitants to crowded living conditions, poor sanitation, increased interpersonal contact and, at times, excessive mortality through acute infections. Using a holistic approach, the course will trace the origin and development of cities with particular emphasis on the importance and development of housing infrastructure, food by-laws, water supply, sanitation system, medical facilities and their role in influencing the health of urban dwellers.
Prerequisite: Any A-level course
Exclusion: (ANTB5013)
Breadth Requirement: Social & Behavioural Sciences

HLTB1003 Introduction to Quantitative and Qualitative Research Methods in Health Studies
The objective of the course is to introduce students to the research methods and approaches used by health and social scientists to investigate health issues. Students will learn about the experimental method, survey method in health research, qualitative interviews, ethnography, among other methods. The course will expand their research skills set in health sciences and the social sciences. They will also learn quantitative and qualitative data analysis approaches.
Prerequisite: HLTB0103 & HLTB0203
Breadth Requirement: Social & Behavioural Sciences

HLCM0413 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. They will build on material learned in IDS030H3 and complement work in HLT030H3. Students must obtain consent from the Supervisor of Studies and supervising instructor before registering for this course.

Prerequisite: HLT010H3 or IDS040H3 or permission of the instructor & a cumulative GPA of at least 3.0.

HLTC02H3 Women and Health: Past and Present

This course uses historical, anthropological, philosophical approaches to further understand the relationships intersecting 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: ANT101H3 or IDS040H3 or B-level course on women's studies/gender

Breadth Requirement: Social & Behavioural Sciences

HLTC03H3 Politics of Canadian Health Studies

This course examines Canadian health care policies and potential solutions. The impact on health care policies of the interests of health care providers, federal and political parties and Canadians' attachment to Medicare are discussed.

Prerequisite: Any 5.0 credits.

Exclusion: (PCLC055H3)

Recommended Preparation: POLS101H3 & POLS102H3

Breadth Requirement: Social & Behavioural Sciences

HLTD01H3 Directed Readings in Health 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. Students must obtain consent from the supervising instructor before registering for this course.

Prerequisite: 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 topics.

Prerequisite: Students must have completed 6.0 credits from the requirements of the Major Program in Health Studies, including completing the methodology requirements from Requirements 1 and 2. Enrollment Limits: Limited to students in the Major (Cooperative) Program in Health Studies. Students who are non-coop majors in Health Studies may take this course with permission of the instructor.

History

Faculty List

M. Elkin, B.A. (Toronto), B.Phil., Ph.D. (Oxon), Professor Emeritus
J.S. Moe, M.A., Ph.D. (Toronto), D.D. (Pembroke College, Montreal), Professor Emeritus
I.R. Robertson, M.A. (McGill), Ph.D. (Toronto), Professor Emeritus
A. Sheps, M.A., Ph.D. (Toronto), Associate Professor Emeritus
E.W. Dovvett, A.M. (Harvard), Ph.D. (London School of Economics), Professor
M. Gervais, A.B. (Princeton), M.A. (Toronto), Ph.D. (Toronto), Professor
F. Iacovetta, M.A., Ph.D. (York, Canada), Professor
D.E. Bender, M.A., Ph.D. (New York), Associate Professor
R.A. Kant, M.A., Ph.D. (Pennsylvania), Associate Professor
S.J. Berk, M.A., Ph.D. (Toronto), Associate Professor
K. Blain, B.A., M.A., Ph.D. (Laval and Nice), Assistant Professor
L. Chen, B.A. (Beijing Foreign Studies), M.A. (SUNY Buffalo), J.D. (Illinois), M.A., M.P.H., Ph.D. (Columbia), Assistant Professor
E.N. Hoffman, M.A. (Tel Aviv), Ph.D. (Michigan), Assistant Professor
J. Sherman, B.A. (Lady Shri Ram), M.A. (Hindu), M.P.H. (Delhi), Ph.D. (Cantab), Assistant Professor
C. Berkowitz, B.A. (Colorado), Ph.D. (Toronto), Lecturer

Program Director: D.E. Bender (416-287-7149) Email: dbender@utm.utoronto.ca

The study of History is vital for our understanding of the present. It offers multiple ways of explaining both how the contemporary world emerged, and how past societies differed from our own. The History Program at UTSC provides 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 men and women to these transformations. Our curriculum spans the history of all parts of the world in their complexes, transnational connections, and covers a broad range of topics, including religion and everyday life, colonialism, the relations between women and men, 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 Program emphasizes 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, and Intersections in the Humanities, and can also complement and enhance courses in Politics, Philosophy, Literature, Arts, Economics, Sociology, and Anthropology.

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 periods, regions, 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 is a whole stresses training in writing, research, and historical methods; these skills are also the focal point of two specialized courses, HIS030H3-Critical Writing and Research for Historians and HIS041H3-History and Evidence.

Knowledge of other languages is essential to advanced study in history. If you plan to take history to an advanced level, we strongly encourage early study of an appropriate language for your program or area of interest. Specialists may enrol in the Language Stream, which is designed to foster such language training.

The History Study Guide is available at: www.utsc.utoronto.ca/~humdiv/prev_hu.html

Guidelines for 1st year course selection

Students intending to complete a program in History should take two of the following courses in the first year: HIS043H3, HIS045H3, HIS046H3, GAS001H3, HIS047H3,CLA048H3.

Note: The History discipline urges students who plan to specialize or major in History to take HUMA01H3 (Exploring Key Questions in Humanities) at the beginning of their studies.

Note: Students are advised to consult the prerequisites for C-level and D-level courses when planning their individual Programs.

Note: For Co-op opportunities related to the Specialist and Major Programs in History, please see the Humanities section of this Calendar.

SPECIALIST PROGRAM IN HISTORY (ARTS)

Undergraduate Advisor: 416-287-7184 Email: history-undergrad-advisor@utsc.utoronto.ca

Program Requirements

1. Number of Credits

   Students must complete at least twelve full credits in History. These twelve must include two of HIS043H3, HIS045H3, HIS046H3, GAS001H3, HIS047H3,CLA048H3 as well as HIS041H3, HIS046H3 and five (in addition to HIS041H3) full credits at the C- or D-level. At least one of the five C- or D-level credits must be at the D-level.

2. Pre-1800 Credits

   Of the twelve credits, at least two full credits must deal with the period prior to 1800.

3. Areas of Study

   Students are required to include in their program five full credits distributed over four of the following areas:

   a) Canadian
   b) United States and Latin America
   c) Medieval
   d) Europe
   e) Africa and Asia,
   f) Transnational
   g) 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.

MAJOR PROGRAM IN HISTORY (ARTS)

Undergraduate Advisor: 416-287-7184 Email: history-undergrad-advisor@utsc.utoronto.ca

Program Requirements

1. Number of Credits

   Students must complete seven full credits in History. These seven must include two of HIS043H3, HIS045H3, HIS046H3, GAS001H3, HIS047H3,CLA048H3 as well as HIS041H3 and 3.0 credits at the C- or D-level.

2. Pre-1800 Credits

   Of the seven credits, at least 1.5 credits must deal with the period prior to 1800.

3. Areas of Study

   Students must take one full credit in Canadian history and at least one half 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
Program Requirements

Students must complete four full credits in History, of which at least one full credit must be at the C- and/or D-level.

HIS440H3 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 Requirement: History, Philosophy & Cultural Studies

HIS450H3 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 Requirement: History, Philosophy & Cultural Studies

HIS480H3 Introduction to Global Asia I
This course introduces Global Asia Studies through studying historical and political perspectives on Asia. Students will learn how to critically analyze major historical trends 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 GAS480H3.
Exclusion: GAS481H3.
Breadth Requirement: History, Philosophy & Cultural Studies

HIS470H3 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 CLA470H3.
Exclusion: CLA471H3.
Breadth Requirement: History, Philosophy & Cultural Studies

HIS482H3 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.
Breadth Requirement: History, Philosophy & Cultural Studies

HIS493H3 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: HIS490H3.
Enrolment Limits: 25
Breadth Requirement: History, Philosophy & Cultural Studies

HIS495H3 History and Culture of the Greek World
A survey of the history and culture of the Greek world from the Mycenaean 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 CLA495H3.
Exclusion: CLA490H3.
Enrolment Limits: 15
Breadth Requirement: History, Philosophy & Cultural Studies

HIS497H3 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 CLA497H3.
Exclusion: CLA496H3.
Enrolment Limits: 25
Breadth Requirement: History, Philosophy & Cultural Studies

HIS498H3 History on Film
An examination of selected historical events in phenomena and their depiction in film. This course will explore the ways in which historical events, such as revolutions, or phenomena such as slavery, have been portrayed by filmmakers. The topics to be studied will change from year to year.
Transnational Area
Breadth Requirement: History, Philosophy & Cultural Studies

HIS499H3 Victorian Britain
An introduction to Victorian Britain offering a broad survey of economic, social, and political trends. Central themes include the industrial revolution and workers' movements, popular protest and state responses, women and family, social welfare, Irish nationalism, and the urban poor. European Area
Exclusion: HIS239H3, HIS349H.
Breadth Requirement: History, Philosophy & Cultural Studies

HIS321H3 Twentieth-Century Britain
An introduction to twentieth-century Britain offering a broad survey of economic, social, and political trends. Central themes include gender and war, the "modern" welfare state, Labour party, and post-1945 politics. Attention will be paid to the
influence of class, gender, and culture on social experience, ideology, and political movements. European Area
Prerequisite: HIS230H3
Breadth Requirement: History, Philosophy & Cultural Studies

HIS300H3 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 Requirement: History, Philosophy & Cultural Studies

HIS311H3 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 Requirement: History, Philosophy & Cultural Studies

HIS401H3 Canadian History to 1885
The history of Canada from the first European contacts to the late 19th century. Topics include the earliest European contacts, New France, the British Conquest, immigration and settlement, Confederation, the constitution, and the early development of Canada as a transcontinental country. Canadian Area Exclusion: HIS262Y, HIS263Y
Breadth Requirement: History, Philosophy & Cultural Studies

HIS411H3 Canadian History Since 1885
Topics include cultural conflict; the optimism of the Laurier period, the impact of the two world wars, political independence, Americanization and relations with the United States, regionalism, and relations between English-speaking and French-speaking Canada. Canadian Area
Prerequisite: None, but HIS341H3 highly recommended. Exclusion: HIS262Y, HIS263Y
Breadth Requirement: History, Philosophy & Cultural Studies

HIS500H3 Africa in the Nineteenth Century
An introduction to the history of Sub-Saharan Africa, from the era of the slave trade to the colonial compact. 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
Prerequisite: Any modern history course or AFS401H3 or permission of the instructor

Exclusion: HIS390H3, HIS293H, HIS396H1, (HIS396Y)
Breadth Requirement: History, Philosophy & Cultural Studies

HIS551H3 Twentieth Century Africa
A survey of African history from the colonial conquests to the post-colonial era of structural adjustment. The emphasis is on both structure and agency in a hostile world. Themes include conquest and resistance; colonial economies; gender and ethnicity; religious and political movements; development and underdevelopment, post-colonial conflicts, as well as cultural achievements. Africa and Asia Area
Prerequisite: None, but AFS401H3 or HIS500H3 highly recommended. Exclusion: HIS551H3, HIS396H1, (HIS396Y)
Breadth Requirement: History, Philosophy & Cultural Studies

HIS552H3 Sub-Continental Histories: South Asia in the World
A survey of South Asian history, from ancient times to the present day. The course explores diverse and exciting elements of this long history, such as ecology and landscape, religion, trade, literature, and the arts, keeping in mind South Asia’s global and Diaspora connections. Africa and Asia Area.
Same as GAS557H3. Exclusion: HIS262Y, HIS263Y, GAS557H3
Breadth Requirement: History, Philosophy & Cultural Studies

HIS588H3 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. Africa and Asia Area Same as GAS588H3. Prerequisite: HIS400H3 or HIS402H3 or GAS401H3 or GAS402H3. Exclusion: HIS267Y, GAS588H3
Breadth Requirement: History, Philosophy & Cultural Studies

HIS600H3 Europe in the Early Middle Ages (305-1050)
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: HIS260Y
Breadth Requirement: History, Philosophy & Cultural Studies

HIS601H3 Europe in the High and Late Middle Ages (1050-1450)
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
Prerequisite: HIS400H3 highly recommended. Exclusion: HIS260Y
Breadth Requirement: History, Philosophy & Cultural Studies
HSCB09H3 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 Requirement: History, Philosophy & Cultural Studies

HSCB07H3 Kievian Rus and Muscovy, 850-1689
The early history of present-day Ukraine and Russia from origins to the beginnings of empire. Topics will include Christianity, Kievian society and law, the Mongol conquest, the rise of Muscovy, the growth of the autocratic state, early European contacts and the Church schism. 0.50 pre-1800 credit European Area
Exclusion: HIS250Y
Breadth Requirement: History, Philosophy & Cultural Studies

HSCB11H3 Imperial Russia, 1682-1900
The history of the Russian Empire from Peter the Great to the dawn of the twentieth century. We will examine through lectures and tutorials the evolution of imperial institutions, war, colonisation of the north, industrialisation, emergence of social classes, reforms and revolution, the flowering of Russian art and literature. European Area
Exclusion: HIS250Y
Breadth Requirement: History, Philosophy & Cultural Studies

HSCB12H3 Revolutionary Russia, 1900 - Present
The history of the Russian Empire and the Soviet Union from the 1905 revolution to the present. Major topics include the revolutions of 1905 and 1917, the experimentations of the 1920s, collectivization and industrialization, the Stalin cult, the disintegration of Stalinism and the end of the USSR. European Area
Exclusion: HIS250Y
Breadth Requirement: History, Philosophy & Cultural Studies

HSCB08H3 Modern Europe I: The Nineteenth Century
Europe from the French Revolution to the First World War. Major topics include revolution, industrialization, nationalism, imperialism, sciences, technology, art and literature. European Area
Exclusion: HIS242H
Breadth Requirement: History, Philosophy & Cultural Studies

HSCB13H3 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
Breadth Requirement: History, Philosophy & Cultural Studies

HSC201H3 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: HSDW01H3
Breadth Requirement: History, Philosophy & Cultural Studies

HSC202H3 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, zoo, breeding, and pet 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 IEIEC03H3
Transnational Area.
Prerequisite: Any 2.5 credits in History or permission of instructor
Exclusion: (HSDW01H3, IEIEC03H3)
Breadth Requirement: History, Philosophy & Cultural Studies

HSC101H3 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 IEIEC25H3, CLACIS5H3
0.50 pre-1800 credit
Ancient World Area
Prerequisite: Any 5 full credits including 1 full credit in classical Studies or History
Exclusion: IEIEC25H3, CLACIS5H3
Recommended Preparation: CLAB05H3 & CLAB06H3
Breadth Requirement: History, Philosophy & Cultural Studies

HSC111H3 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 & CLAB06H3
Breadth Requirement: History, Philosophy & Cultural Studies

HSC14H3 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
Prerequisite: Two of (HSDW01H3, HISAD02H3, HISAD04H3, HISAD05H3)
Breadth Requirement: History, Philosophy & Cultural Studies
HISC181H3 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.
Prerequisite: 1.0 credit at B-level in European history
Enrollment Limit: 40
Breadth Requirement: History, Philosophy & Cultural Studies

HISC232H3 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: HISS10H1 & HISS11H3
Enrollment Limit: 40
Breadth Requirement: History, Philosophy & Cultural Studies

HISC330H3 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 exclusion, the Cold War, and the "culture wars". United States and Latin America Area
Prerequisite: HISS30H3 & HISS31H3 or permission of instructor
Enrollment Limit: 40
Breadth Requirement: History, Philosophy & Cultural Studies

HISC363H3 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, socioeconomics, stages towards pluralism and assimilation, and how migration experiences have varied by race, class, and gender. United States and Latin America Area
Prerequisite: HISS30H3 & HISS31H3 or permission of instructor
Breadth Requirement: History, Philosophy & Cultural Studies

HISC373H3 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: HISS30H3 and HISS31H3
Enrollment Limit: 40
Breadth Requirement: History, Philosophy & Cultural Studies

HISC454H3 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 to 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
Breadth Requirement: History, Philosophy & Cultural Studies

HISC489H4 Introduction to Canadian International Relations
A survey of Canada's place in the world from its origins to the present day, with an emphasis on the post-Confederation period. Topics covered will include Canada's evolving role in the British Empire, Canadian-American relations, the World Wars, the Cold War, peacekeeping, and the question of national identity.
Canadian Area
Prerequisite: Any four credits
Exclusion: HIS311H3, HIS311Y
Recommended Preparation: HIS340H3 & HIS341H3
Breadth Requirement: History, Philosophy & Cultural Studies

HISC479H3 Canadian Labour History
The development of a working class from the pre-industrial era to the modern period. Topics will include the impact of technology on workers, ethnicity, the development of unions, such pivotal events as the Winnipeg General Strike, and the relationship of labour to politics.
Canadian Area
Prerequisite: HISS40H3 & HIS41H3
Exclusion: HIS313H3, HIS313Y
Breadth Requirement: History, Philosophy & Cultural Studies

HISC522H3 A History of Ethiopia
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.
0.50 pre-1800 credit
Africa and Asia Area
Prerequisite: A History credit considering Europe, Africa or Asia before 1900. Highly recommended: one of (HIS201H3, HISS30H3, HISS60H3 or HISS61H3)
Breadth Requirement: History, Philosophy & Cultural Studies

HISC556H3 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.
Africa and Asia Area
Prerequisite: HIS350H3 or HIS351H3 or (HISC50H3 or (HISC51H3) or permission of the instructor
Breadth Requirement: History, Philosophy & Cultural Studies
HISC5693 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: GASC5693, Africa and Asia Area
Prerequisite: HBSB5583 or an equivalent B-level history course in East Asia or permission of instructor.
Exclusion: GASC5083
Breadth Requirement: History, Philosophy & Cultural Studies

HISC5793 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 disparities, scientific/technological exchanges, and cultural encounters and conflicts in the ages of empire and globalization.
Africa and Asia Area
Same as: GASC5793
Prerequisite: At least 4.0 credits completed. Exclusion: GASC5793
Recommended Preparation: HBSB5813
Enrollment Limits: 40
Breadth Requirement: History, Philosophy & Cultural Studies

HISC5813 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, musical and film sources.
Transnational Area
Prerequisite: Two of (HISC5113, HISC5213), HISA4913, HISA5913 or 1.0 credit in Modern History
Breadth Requirement: History, Philosophy & Cultural Studies

HISC6013 Old World? Strangers and Foreigners in the Mediterranean, 1200-1700
An exploration of how medival and early modern societies encountered foreigners and accounted for foreigners, as well as for religious, linguistic, and cultural difference more broadly. Topics include: monks, relics, pilgrimage, the rise of the university, merchant companies, mercenaries, piracy, captivity and slavery, tourism, and the birth of resident empires.
Same as: IFEC5113, 0.50 per 1.00 credit.
Transnational Area
Prerequisite: At least one of HISC6013, HISC6113 or HISC6213
Exclusion: IFEC5113
Enrollment Limits: 50
Breadth Requirement: History, Philosophy & Cultural Studies

HISC6593 Venice and its Empire, 800-1800
Social and cultural history of the Venetian Empire from a fisherman'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, gods and goddesses, households and families.
6.00 per 1.00 credit
European Area
Prerequisite: 1.0 credit in History
Breadth Requirement: History, Philosophy & Cultural Studies

HISC7393 Social History of Imperial Russia, 1700-1900
The development of Russian society from the revolutionary reforms of Peter the Great to the counter-revolutionary reforms of Alexander III. Topics include peasant society, the nobility, women, urbanization, and proletarianization.
European Area
Prerequisite: HBSB7213 or any 2.5 credits in HBS
Breadth Requirement: History, Philosophy & Cultural Studies

HISC7813 Social History of Revolutionary Russia, 1900-1932
Social change in Russia and the USSR from the 1905 revolution to the end of the Soviet Union. Topics include the social processes that produced the revolutions of 1905 and 1917, social experimentation in the 1920s, Stalinism and its disintegration and the social background to the breakup of the USSR.
European Area
Prerequisite: HBSB7213 or any 2.5 credits in HBS
Exclusion: HISC5113, HISC511Y
Breadth Requirement: History, Philosophy & Cultural Studies

HISC7913 Modern Germany I: The Nineteenth Century
German history from the end of the Holy Roman Empire to the outbreak of the First World War. The rise of Prussia, the impact of political and industrial revolution, the unification of modern Germany, the imperial age, science, technology, art and music are among the themes pursued.
European Area
Prerequisite: HBSB7913
Exclusion: (HISC3113, HISC311Y, HISC301H)
Breadth Requirement: History, Philosophy & Cultural Studies

HISC7913 Modern Germany II: The Twentieth Century
German history from the First World War to the present day. The two world wars, the Weimar Republic, the rise of Hitler, the Third Reich, the Holocaust, the division of Germany, the Cold War, European Union, and German reunification are among the topics covered.
European Area
Prerequisite: HBSB7913
Exclusion: HISC311H, HISC311Y
Breadth Requirement: History, Philosophy & Cultural Studies

HISC7013 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.
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: HISC497Y, HISC498H, HISC499H, HISC499V
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
International Area
Prerequisite: [HISB62H3 or (HISB60H3) or (HISB11H3)] or permission of instructor
Enrollment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

Between Two Worlds? Translators and Interpreters in History

A seminar exploring the social history of translators, interpreters, and the tools they produce. Through several case studies from Ireland and Istanbul to Quebec, 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: [HISB62H3 & HIS60H3] or permission of instructor
Enrollment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

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 colonization, industrialization, capitalism and liberalization affected modern criminal justice and thus the state-society relationship and modern citizenship in different cultures across time and space.

Transnational Area
Prerequisite: Two half credits in History and/or Global Asia Studies at A or above B-level or permission of the instructor.
Enrollment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

Themes in the History of Childhood and Culture

An analysis of historical changes in childhood over space, time, and cultures 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.

Transnational Area
Prerequisite: At least 2 C-level courses in History and/or Women's/Gender Studies, or permission of the instructor.
Enrollment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

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 11 credits, including [HISB30H3 & HISB31H3] or [HISB40H3 & HISB41H3] and one C-level course in Canadian or United States History.
Enrollment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

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 CLAS50H3
0.50 pre-1800 credit
Ancient World Area
Prerequisite: Any 11 full credits including 2 full credits in Classical Studies or History
Exclusion: CLAS50H3
Recommended Preparation: CLAS60H3 & CLAS61H3
Enrollment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

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: [HISB30H3 & HISB31H3] or permission of instructor.
Enrollment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

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 elsewhere, including Canada.

Transnational Area
Prerequisite: [HISB30H3 & HISB31H3] or permission of instructor.
Enrollment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

Topics in American Social and Cultural History

This four-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 & HISB31H3]
Enrollment Limit: 15
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, nativization 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: HISB30H3 & HISB31H3 Enrolment Limit: 15 Breadth Requirement: History, Philosophy & Cultural Studies

HISD38H3 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: HISB30H3 & HISB31H3 Enrolment Limit: 15 Breadth Requirement: History, Philosophy & Cultural Studies

HISD40H3 Canadian Political Leadership, 1668 to Present
A seminar course that investigates the tradition of political leadership in Canada, from New France to the present day, with an emphasis on the post-Confederation period and the governing styles of major figures such as Sir John A. Macdonald, William Lyon Mackenzie King, and Pierre Trudeau. Canadian Area Prerequisite: HISB40H3 & HISB41H3 Recommended Preparation: A C-level Canadian History course Enrolment Limit: 15 Breadth Requirement: History, Philosophy & Cultural Studies

HISD42H3 Selected Topics in Canadian Diplomatic and Military History
A seminar course that takes a case-study approach and examines important controversies in the history of Canadian warfare and diplomacy. Specific topics will vary from year to year. Canadian Area Prerequisite: HISB40H3 & HISB41H3 or ISC346H3 Exclusion: HIS405Y Enrolment Limit: 15 Breadth Requirement: History, Philosophy & Cultural Studies

HISD49H3 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 ofScarborough. 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: At least one B-level and one C-level course in history, preferably Canadian history. Enrolment Limit: 15 Breadth Requirement: History, Philosophy & Cultural Studies

HISD49H3 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. Canadian Area Prerequisite: Any credit in Canadian history Enrolment Limit: 15 Breadth Requirement: History, Philosophy & Cultural Studies

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 security state, Cold War, and civil liberties, suburbia, and sexuality. Canadian Area Prerequisite: HISB41H3 & at least one other B- or C-level credit in History Enrolment Limit: 15 Breadth Requirement: History, Philosophy & Cultural Studies

HISD50H3 Southern Africa, 1652-1910
A seminar study of the history of the peoples of southern Africa, beginning with the hunter-gatherer horizon and concentrating on farming and industrializing societies. Students will consider pre-colonial civilizations, colonialism and white settlement, slavery, the Boers, the mineral revolution and the South African War. Extensive reading and student presentations are required. African and Asia Area Prerequisite: HISB30H3 or (HISC50H3 or any 2.5 credits in History or permission of instructor) Enrolment Limit: 15 Breadth Requirement: History, Philosophy & Cultural Studies

HISD51H3 Southern Africa: Colonial Rule, Apartheid and Liberation
A seminar study of southern African history from 1910 to the present. Students will consider industrialization in South Africa, apartheid, 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. Africa and Asia Area Prerequisite: HISB51H3 or HISD50H3 Enrolment Limit: 15 Breadth Requirement: 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.
Africa and Asia Area.
Prerequisite: [One of HISS580H3, HISS581H3, HISS582H3, HISS583H3, or any 3.5 credits in History or permission of instructor]
Enrolment Limits: 15
Breadth Requirement: History, Philosophy & Cultural Studies

HIDS561H3 Travelling and Travel-Writing from the Middle Ages to the Early Modern Period
The development of travel and travel narratives before 1500 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: HISS621H3
Recommended Preparation: HISC608H3
Enrolment Limits: 15
Breadth Requirement: History, Philosophy & Cultural Studies

HIDS562H3 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: HISS606H3 & HISS611H3
Enrolment Limits: 15
Breadth Requirement: History, Philosophy & Cultural Studies

HIDS563H3 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: HISS606H3 & HISS611H3 Enrolment Limits: 15
Breadth Requirement: History, Philosophy & Cultural Studies

The following courses may be used to fulfill History Program requirements. (see the Classical Studies section of this Calendar for full description.) Pre-1800 courses and Ancient World Area:
CLAR605H3 History and Culture of the Greek World
CLAR606H3 History and Culture of the Roman World
CLAC257H3 Environment, Society and Economy in Pre-Islamic and Roman Egypt
CLAC251H3 Multiculturalism and Cultural Identities in the Greek and Roman Worlds
CLAD605H3 Water Management in the Ancient Mediterranean World

The following courses may be used to fulfill History Program requirements (see the Global Asia Studies section of this Calendar for full description.) Africa and Asia Area:
GASA401H3 Introduction to Global Asia I
GASC346H3 Comparative Studies of East Asian Legal Culture

IEEC413H3 Themes in Translation and Cultural Mediation I
This course may be used to fulfill History Program requirements. (See the Intersections, Encounters, and Encounters in the Humanities section of this Calendar for full description.)
Transnational Area
Humanities

Faculty List
E. Kho, B.Sc. Ed. (USM), M.A. (TESOL (Reading), Ph.D. (USQ), Senior Lecturer
M. Peri, M.A., Ph.D. (Columbia), Lecturer
C. Smith, M.A., Ph.D. (Toronto), Lecturer

As a broad and diverse collection of disciplines, the Humanities examine how we construct our aesthetic, intellectual, emotional, ethical, social, and political worlds, and they look comparatively at the differences in such constructions in different times and places, and for different people. The Humanities thus study human culture in all of its rich diversity while also seeking to understand the ways in which humans are interconnected.

As an approach to knowledge, the Humanities rely on analytic, critical, inductive, interpretative and evaluative methods of inquiry that are markedly distinct from the empirical methods of the natural and social sciences. By focusing on the subjective constructions of the world around us as forms of identity and human expressions, study in the Humanities helps us better understand what it means to be human.

As one of the U of T Scarborough’s academic departments, humanities houses several distinct disciplines and programs including African Studies, Classical Studies, French, Global Asia Studies, History, Humanities Co-op, Intersections, Encounters in the Humanities, Journalism, Linguistics, Media Studies, New Media Studies, Religion, Visual and Performing Arts, and Women’s and Gender Studies. Each of these is listed under its own heading in the Calendar and offers a range of courses in its own programme(s) of study. The Humanities Department also offers, HUM - courses that fall outside the purview of the individual Humanities disciplines. These courses establish an intellectual context in which students can explore different approaches to learning and also benefit from a comparative and interdisciplinary approach to knowledge.

The Humanities Study Guide is available at: www.utoronto.ca/hum/hum_gu.html

HUMA01H3 Exploring Key Questions in the Humanities
Academic study in the Humanities is distinguished by its critical and historical approaches to text, image, and sound. This course introduces students to key questions through thought-provoking lectures and readings, discussions, and intense small group discussions. Students experience the dynamics and diversity of the Humanities and humanistic inquiry while refining their critical thinking and communication skills. HUMA01H3 is writing intensive course that offers students regular constructive feedback.

Breadth Requirement: Arts, Literature & Language

HUMA21H3 Inquiry and Reasoning in the Humanities
A companion course in HUMA01H3, HUMA21H3 further students’ knowledge of humanistic inquiry through an investigation and application of various research methods, approaches and systems of meaning making. Students develop the core skills of inquiry and reasoning, including locating, collecting and learning from data, analyzing evidence and assertions, and communicating results within a Humanities context.

Prerequisite: HUMA01H3
Exclusion: (HUMB11H3)
Breadth Requirement: History, Philosophy & Cultural Studies

HUMD01H3
HUMD20H3
HUMD30Y3 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 "Y" and "V" courses and by 1 December for "F" courses. If the proposal is approved, two faculty members from relevant disciplines will supervise and evaluate the work.

Prerequisite: Three full credits at the B-level in the Department of Humanities.

CTLA19H3 Writing Practicum: A Course for Non Native Speakers of English
This course is designed to provide small groups of students with intensive writing and speaking practice on a weekly basis. Exclusion: (HUMA19H3), (LGGA19H3), (LGGIA99H3)
Breadth Requirement: Arts, Literature & Language

Humanities Co-operative

Program Supervisor: S.L. Hebwig (416-287-7160) Email: humanities-coop-program-supervisor@utoronto.ca Co-op Contact: askcoop@utoronto.ca
The Humanities Co-operative Program allows students to identify and consider relationships between academic and work environments, and combine their chosen humanities program with work experience that draws upon the knowledge and skills acquired during their studies. Students are required to complete a Specialist Program offered in the humanities or two Major Programs (at least one of which is in the humanities) and to complete the requirements of an Honours (20-credit) degree plus two work terms. For information on fees, work terms, and studying in the program, please see the Co-operative Programs section of this Calendar.

Note: For information on the Specialist Co-operative Program in Arts Management which operates separately from the Humanities Co-operative Program, please see the Visual and Performing Arts section of this Calendar.

Admissions

Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this Calendar.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website at: www.utoronto.ca/registrar. The minimum qualifications for entry are 4.0 credits from the following list of courses plus a cumulative GPA of at least 2.5:

1. Art History (Major): HUMA01H3 & 1 full credit in Art History
2. English (Specialist & Major): ENGB03H3, ENGB04H3 & ENGB05H3
3. French (Major): FREA06H3 & FREA02H3
4. History (Specialist & Major): 2.5 full credits from HISA04H3, HISB05H3, HISC06H3 or GAS01H3, HISC07H3 or CLA045H3 or 1 full credit at the B-level in HIS
5. Linguistics (Major): LINA01H3 & LINB02H3
6. Music & Culture (Major): HUMA01H3 & 1 full credit in Music
7. Psycholinguistics (Specialist): LINB01H3, LINB02H3, PSYA01H3 & PSYA02H3
8. Studio (Major): HUMA01H3 and 1 full credit in Studio
9. Theatre & Performance Studies (Major): HUMA01H3
10. Women's & Gender Studies (Major): WSTA01H3 & WSTA02H3

Program Requirements

The program requires eight four-month sessions of study and two 12-week work placements and normally requires four to five years to complete.

Course Requirements

Students in the Humanities Co-operative Program must complete the following:

1. All of the following 2.5 full credits:
   a) HUMA01H3 Exploring Key Questions in Humanities
   b) HUMA02H3 Inquiry and Reasoning in the Humanities
      Where appropriate, credits in this list may also count towards the completion of a Specialist, Major or Minor Program.
   c) 1.5 credits in English as follows:
      [ENGB03H3 Critical Thinking About Narrative and
      ENGB04H3 Critical Thinking About Poetry and
      ENGB05H3 Critical Writing about Literature]

2. In addition to the core credits, students must complete a Specialist Program offered in the humanities or two Major Programs (at least one of which is in the humanities) or one Major Program (in the humanities) and two Minor Programs (in any area).

The following programs offered in the humanities may be chosen by students:

Specialist Programs

Art and Culture
English
French
History
Linguistics
Philosophy
Psycholinguistics

Major Programs

Art History
English
French
History
Linguistics
Music and Culture
Philosophy
Studio
Theatre & Performance Studies
Women's and Gender Studies

For the requirements of these programs, please see the program descriptions elsewhere in this Calendar. Students should consult with the Program Supervisor of the Co-operative Program in the humanities as well as with their discipline Program Supervisor(s) about their course selection.

3. Elective Courses
Students are normally required to take a certain number of elective courses as a part of their Specialist or Major program. The purpose of the elective field is to allow students some flexibility in shaping a degree to their interests and future needs. Students are encouraged to use their elective credits to take courses outside their area(s) of concentration in order to broaden their understanding of contemporary issues and their historical context and to enhance their communication skills. It is strongly recommended that humanities Co-op students take either VPAAA1003 "Introduction to Arts Management" and VPAAA1203 "Audience and Resource Development" or MGTAA0313 and MGTAA0413 "Introduction to Management I and II" as elective choices to allow the student to gain an important contextual understanding of workplace issues and develop expected skills for the co-op placement environment. Students are encouraged to meet with the humanities Co-op Program Supervisor to discuss the appropriateness of each of the choices for their particular interests and needs.

For course descriptions please see the relevant program area(s) of the Calendar.

Courses in the first year of the program
The first year of study would normally consist of the full core requirements for Humanities Co-op, the required introductory courses from the Specialist, Major and/or Minor Program(s) (chosen in consultation with the Program Supervisor for that/those program(s), and electives. Students will also normally take the Arts & Science Co-op Work Term Preparation Course in the first full session (note that this is a non-credit course taken over and above the five credits in the first year).

Work Terms
Two work terms are an integral part of the co-op curriculum.
To be eligible for their first work term, students must be in good standing in the program (with a minimum 2.5 Cumulative Grade Point Average) and have completed at least 9.0 full credits, including at least 1.5 credits of the humanities Co-op core courses and at least 4.5 full credits toward the requirement of the Specialist Program or the humanities Major Program(s) to which they are enrolled. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term.

To be eligible for their second work term, students must be in good standing in the program (with a minimum 2.5 Cumulative Grade Point Average) and have completed at least 12.5 full credits, including all 2.0 core credits and at least 7.0 credits towards the requirements of their Specialist program or their Major Program(s). As well, they must have received a satisfactory evaluation of their performance and work term report for their first placement.

International Development Studies

Faculty List
A. Barry, B.A. (Western), M.A. (Yale), Ph.D. (Princeton), Professor Emeritus
M.F. Bance, B.A. (Sheffield), Ph.D. (Sheffield), Associate Professor Emeritus
A.G. Price, B.Sc. (Wales), M.Sc., Ph.D. (McGill), Associate Professor Emeritus
A.E. Birt, B.A. (Harvard), M.A. (University of Canterbury), Sc.D. (Johns Hopkins), Professor
E.C. Rolph, B.A., M.Phil. (London), Ph.D. (Toronto), Professor
J. Teichman, B.A., M.A., Ph.D. (Toronto), Professor
S. Bamford, B.A. (Toronto), M.A. (McMaster), M.A., Ph.D. (Virginia), Associate Professor
M. Hoffmann, B.S. (Michigan Technological University), Ph.D. (George Washington University), Associate Professor
P.C. Hoing, B.A. (National Chung-ling), M.A. (Chinese Cultural), M.A., Ph.D. (UCLA), Associate Professor
P. Kirgian, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor
N. Kortum, M.A., Ph.D. (Toronto), Associate Professor
C. Nortier, B.A., M.A. (Lund), Ph.D. (Geneva), Associate Professor
S.J. Rockel, M.A., Ph.D. (Toronto), Associate Professor
G. Fraser, M.A. (Toronto), Ph.D. (Yale), Assistant Professor
M. Hunter, B.A. (Ottawa), M.A. (Univ. of Natal), Ph.D. (Univ California, Berkeley), Assistant Professor
M.E. Isaac, Ph.D. (Toronto), Assistant Professor
T. Kepe, B.Agri. (Fort Hare Univ, South Africa), M.Sc. (Guelph), Ph.D. (Univ Western Cape, South Africa), Assistant Professor
K. MacDonald, B.A., M.A., Ph.D. (Waterloo), Assistant Professor
L. Chin, B.A., M.A. (Toronto), Senior Lecturer
Discipline Representative: L. Chan
Undergraduate Counsellor: J. Rooiprentshighi Ennati: social-sciences-counsellor@unsw.edu.au

Our 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, an 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. The students in the IDS program 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 is underpinned by a strong sense of social responsibility.

The specific objectives of our IDS programs are to: (1) provide a broad understanding of different development paths and of the complex set of international and domestic factors affecting their success and sustainability; (2) develop sensitivities to and an awareness of the reality in developing countries their cultures, their societies, their political systems, and their positions within the global arena; (3) provide skills and opportunities for IDS students to share their experience and insights, to enhance awareness of development issues at the university, and in the broader community, and to promote work on development within Canada; (4) in the case of specialist co-op program, provide practical work experience in a different culture under the supervision of a Canadian or Southern non-governmental organization (NGO), research institute, multilateral organization, or private partner; and (5) develop partnerships with individuals and organizations in the Global South working in international development.

There are three IDS programs offered: a specialist (non-co-op), a specialist co-op, and a major.

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 or a minor in IDS might consider a parallel major or minor in any one of environmental sciences, economics, geography, sociology, anthropology, and political science. While not required for graduates, specialist students (co-op or non-co-op) are also encouraged to consider fulfilling the requirements of a major program in a related discipline along with their specialist IDS program. For details about how these joint programs can be worked out, please contact the IDS Supervisor of Studies.

Guidelines for 1st year course selection

Students intending to complete any of the above IDS programs should include the following required courses in their first year selection: ECM401H3, ECM405H3, EESA401H3 and IDS880H3. Other useful related (but not required) first year courses include: ANTA26H3, GGRA20H3, HLA1A1H3, and POLA95H3. Students should also be careful to make sure that they take the appropriate prerequisites for all courses and programs they decide to pursue.

SPECIALIST PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS)

Program Requirements

This program requires 13.0 full credits of which at least 6.0 must be at the C- or D-level including at least 1.0 at the D-level.

1. Introduction to International Development Studies (2.0 full credits as follows)
   IDS860H3 Introduction to International Development Studies

2. Core courses in International Development (3.5 full credits as follows)
   IDS800H3 Political Economy of International Development
   IDS802H3 Development and Environment
   IDS804H3 International Health Policy Analysis
   IDS806H3 Equity, Ethics and Justice in International Development
   POLB90H3 Comparative Development in International Perspective

3. Methods for International Development Studies (1.5 full credits as follows)
   IDS804H3 Project Management I

0.5 FCE in Qualitative Methods (one of: ANTC25H3, EMB11H3, GGRA20H3, SSOB08H3, PSYB07H3 & STARB2H3)

0.5 FCE in Quantitative Methods (one of: ANTB19H3, GGRA20H3, SSOB08H3, HLA1A1H3, POLC70H3).
4. Specialized Courses: Approaches to International Development (8.0 full credits)

A minimum of 2.0 full credits must be chosen from two different clusters below for a total or 4.0 full credits. The other 2.0 full credits may be selected from any of the courses listed below, and IDSIC073H3, IDSIC108H3, IDSID148H3 and IDSID183H3 may also be counted towards the completion of this requirement.

**Media and Development**
- GASC400H3 Chinese Media and Politics
- GASC413H3 Media and Popular Culture in East and Southeast Asia
- IDSB106H3 Knowledge and Communication for Development
- IDSC060H3 Media and Development
- MDSB101H3 Media and Globalization
- MDSB103H3 Critical Approaches to Digital Media
- SOCC083H3 Gender and Information Technology
- SOCC443H3 Media and Society

**Culture and Society**
- ANTBI03H3 Ethnography and the Comparative Study of Human Societies
- ANTRB03H3 Culture, Politics and Globalization
- ANTRB64H3 The Anthropology of Food: Consuming Passions
- ANTC103H3 Anthropological Perspectives on Development
- ANTC344H3 The Anthropology of Transnationalism
- ANTC553H3 Muslim Societies
- ANTC664H3 Anthropology of Tourism
- DTSB103H3 Diaspora and Transnationalism Studies I
- DTSB203H3 Diaspora and Transnationalism Studies II
- HSSB513H3 Twentieth Century Africa
- HSSB573H3 Sub-Continental Histories: South Asia in the World
- (HSSC513H) Topics in Asian History
- HSSC553H War and Society in Modern Africa
- IDSC083H3 Media and Development
- SOCC253H3 Ethnicity, Race and Migration
- SOCC345H3 Migrations & Transnationalism

**Economics of Development**
- ANTC103H3 Producing People and Things: Economics and Social Life
- ECOM363H3 Economic Aspects of Public Policy
- ECOM683H3 Comparative Economic Systems
- ECOM693H3 Economic Development
- ECOM695H3 Development Policy
- IDSC102H3 Economics of Small Enterprise and Micro-Credit

**Environment and Land Use**
- ANTRB03H3 Political Ecology
- EEBS163H3 Feeding Humans - the Cost to the Planet
- EEBS173H3 Hydro Politics and Transboundary Water Resources Management
- FOR201H4 Conservation of Tropical and Subtropical Forests
- GGRB203H3 Environmental Conservation and Sustainable Development
- GGRC103H3 Urbanization and Development
- GGRC203H3 Issues in Rural Development
- GGRC223H3 Political Ecology Theory and Application
- GGRC255H3 Land Reform and Development

**Gender and Health**
- ANTC143H3 Feminism and Anthropology
- ANTC153H3 Genders and Sexualities
- ANTC163H3 Medical Anthropology: Illness and Healing in Cultural Perspective
- GGRB233H3 Geographies of Disease
GORD1H0 Health and Sexuality
HLTA0H0 Plagues and Peoples
HLMC0H0 Health and Health: Past and Present
HMBH0H0 Global Health and Human Right
IDSC1H0 Issues in International Health
POLC0H0 Globalization, Gender and Development
WHTC0H0 Women and Development
WSTC1H0 Applied Study in Women and Development

Politics and Policy
POLB0H0 Introduction to International Relations
POLB1H0 Global Issues and Governance
POLC0H0 International Cooperation and Institutions
POLC1H0 The New International Agenda
POLC0H0 Development Studies: Political and Historical Perspectives
POLC9H0 Latin America: Dictatorship and Democracy
POLC9H0 State Formation and Authoritarianism in the Middle East
POLC9H0 Putin Politics in the Middle East
POLC9H0 Latin America: Politics of the Dispossessed
POLD0H0 Exploring the New International Agendas
POLD0H0 Public Policy and Human Development in the Global South
POLD0H0 Selected Topics on Developing Areas

SPECIALIST PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (SCIENCE)
The science version of the Specialist Program in International Development Studies is currently under review and students interested in this option should consult with the Program Supervisor.

SPECIALIST (CO-OPERATIVE) PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS)
Co-op Contact: askcoop@utsc.utoronto.ca
The Co-operative Program in International Development Studies at University of Toronto Scarborough, is a five-year undergraduate Program which aims to provide students with a critical understanding of international development issues through exposure to a variety of academic disciplines and to another culture. The Program combines interdisciplinary academic study in the social and environmental sciences and humanities with a practical work experience in a developing country. IDS students graduate with an Honours B.A. with a Specialist certification in International Development Studies.

Note: The science version of the Specialist (Co-operative) Program in International Development Studies is currently under review and students interested in this option should consult with the Program Supervisor.

Program Admission
Enrolment in the Program is limited. Interviews are normally held from March until May for students who pass the initial screening. Admissions are granted on the basis of the applicant's academic performance, background in relevant subjects, language skills, experience or interest in international development studies and work. For information on fees and status in the Program, please see the Co-operative Programs section of this Calendar.

Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this Calendar.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website at: www.utsc.utoronto.ca/support. The minimum qualifications for entry are 4.0 credits and a cumulative GPA of at least 2.5. An interview is required.

Work Placement
This Program requires twenty courses (four years) of study and one work term of eight to twelve months in duration. The work term will normally begin between April and September of the third year. The IDS work term is an integral part of the co-op curriculum and is designed to provide students with practical hands on experience in a developing country. The majority of work terms are with Canadian NGOs, research institutes or private sector consulting firms. The location of placements will vary according to each student's disciplinary and regional preferences and abilities, the availability of positions, and the practicability and safety of the area.

Placement employers are asked to cover the living allowance of the student. These students who choose to carry out these placement with no funding will be asked to finance the living allowance themselves.

Students are required to submit progress reports every 2 months and begin work on a major research project. To be eligible for placement, students must have completed 14.5 full credits including 12.0 IDS credits. These 12 must include IDSC0H0, IDSC0H0 plus 9.5 other credits from Requirements.
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1 through 4. For information about status in the co-op program, fees, and regulations, please see the Co-operative Programs section of this Calendar.

Students who successfully complete all requirements associated with a work term are awarded credit; these credits being additional to the 20.0 normally required for the degree. Work terms are evaluated by program faculty, the co-op office, and the employer, and a grade of CR (credit)/NCR (no credit) is recorded on the transcript.

IDS Co-op Tutorial and Pre-Departure Orientation
Students participate in a non-credit co-op tutorial, commencing at the end of the year in which they complete 10 credits, and continuing through the following year (the pre-placement year). Presentations, group exercises and individual assignments prepare students for the placement experience.

There are mandatory sessions on cross-cultural understanding, health and safety issues on placement, researching for the IDS080Y3 thesis, and other key topics. A weekend retreat with the fifth years (who have returned from placement) provides the opportunity for sharing of first-hand experience.

Program Requirements
This program requires 15.0 full credits, of which at least 6.0 must be at the C- or D-level including at least 1.0 at the D-level. Students must complete requirements 1-4 of the requirements for the Specialist (Non-co-op B.A.) Program in International Development Studies above, except for IDS080H3, plus the following:

- 1.0 full credit in a second language
- IDS00H3 Research Design for Development Fieldwork (must be taken prior to co-op placement)
- IDS080Y3 Post-placement Seminar and Thesis

MAJOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS)

Program Requirements
This program requires 8.0 full credits of which at least 2.0 must be at the C- or D-level.

1. Introduction to International Development Studies (0.5 full credits)
   IDS01H3 Introduction to International Development Studies

2. Core courses in International Development (1.5 full credits)
   1.5 full credits from the following:
   - IDS01H3 Political Economy of International Development
   - IDS02H3 Development and Environment
   - IDS04H3 International Health Policy Analysis
   - IDS06H3 Equity, Ethics and Justice in International Development
   - POL10H3 Comparative Development in International Perspective

Students wishing to take IDS01H3 and IDS02H3 should be aware that there are A-level prerequisites for these courses.

3. Methods for International Development Studies (1.5 full credits)
   - IDS04H3 Project Management 1
   - 0.5 credits in qualitative methods (one of ANTC35H3, ECON21H3, GGRA30H3, PSYB07H3, SOC306H3 & STAB22H3)
   - 0.5 credits in quantitative methods (one of ANTH19H3, GGRA20H3, SOC105H3, HLSA10H3, POLC78H3)

4. Specialized Courses (4.5 full credits)
   - 4.5 credits from the courses listed in Requirement 4 of the B.A. version of the Specialist Program in IDS with at least 1.0 credit from each of TWO of the clusters.

MAJOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (SCIENCE)
The science version of the Major Program in International Development Studies is currently under review and enrolment in it has been suspended indefinitely. Students who first enrolled at UTSC prior to the 2010 Summer Session should refer to the 2009/2010 UTSC Calendar.

MINOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS)
The Minor Program in International Development Studies has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in the program are able to complete it.

INTERFASSITY COMBINATION PROGRAM IN INTERNATIONAL DEVELOPMENT AND ENVIRONMENTAL STUDIES
The Interfassity Combination Program in International Development & Environmental Studies is under review and enrolment in it has been suspended indefinitely. Students who are currently enrolled in it will be able to complete it.
IDS401H3 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 Requirement: Social & Behavioural Sciences

IDS801H3 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 credits in ECM Programs.

Prerequisite: ECMA061H3 & ECMA051H3 or [ECMA041H3 & ECMA061H3] & IDS401H3
Exclusion: EC0235Y
Enrolment Limits: 170
Breadth Requirement: Social & Behavioural Sciences

IDS802H3 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: IDS401H3 and EESA011H3
Enrolment Limits: 170
Breadth Requirement: Social & Behavioural Sciences

IDS804H3 International Health Policy Analysis

This course explores institutional, economic, social, epidemiological, ideological, and political forces in the field of international health. Key themes include political economy of health and development; distribution of diseases; social determinants of health; financing and organization of health systems; international health agencies; role of civil society, and globalization and health.

Prerequisite: 3.0 full credits including IDS401H3
Breadth Requirement: Social & Behavioural Sciences

IDS806H3 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: IDS401H3 and students registered in an IDS program before 2010/2011 will be admitted with permission of instructor.

Breadth Requirement: Social & Behavioural Sciences

IDS810H3 Knowledge and Communication for Development

Introduces the role of new communications technology and its effects internationally. Covers topics such as the digital divide, distance education, and issues of intellectual property. Students gain experience in using new technology, for example critiquing websites, creating websites, participating in an electronic conference using on-line tools.

Exclusion: (ESTB101H3)
Enrolment Limits: 90 per section; preference will be given to the first round of registration to students enrolled in EST programs.

Breadth Requirement: Social & Behavioural Sciences

IDS813H3 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: IDS401H3 & 9.0 full credits in total including at least 6.0 credits satisfying Requirements I through 4 of the Specialist Co-op program
Enrolment Limits: 20 Limited to students enrolled in the Specialist Co-op Program in IDS. Students in other IDS programs may be admitted with permission of instructor subject to the availability of spaces.

Breadth Requirement: Social & Behavioural Sciences

IDS840H3 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: IDS401H3 & IDS801H3 & IDS802H3
Enrolment Limits: Restricted to students in the IDS specialist and major programs.

Breadth Requirement: Social & Behavioural Sciences

IDC809H3 Directed Research on Canadian Institutions and International Development

Introduces students to the role of Canadian institutions (both non-government organizations and private agencies) working in international development. Students taking this course will arrange, in consultation with the instructor, to work (usually as a volunteer) in a Canadian institution. They will write a major research paper related to some aspect of their experience. The course will use and apply some of the techniques and skills
taught in IDS604H3. Students must obtain consent from
the Supervisor of Studies before registering for this course.
Prerequisite: IDS6A01H3 & IDS6B01H3 & IDS6B02H3 &
permission of the instructor
Corequisite: IDS6C04H3 recommended

IDS6C07H3 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: IDS6A01H3 & IDS6C04H3
Enrollment Limit: Limited to students in IDS Specialist
and Major programs. Other students may be admitted with
permission of instructor. Students in the Co-op program
must take this course prior to their placement year.
Breadth Requirement: Social & Behavioural Sciences

IDS6C08H3 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: IDS6A01H3 & IDS6B01H3 & IDS6B02H3
Enrollment Limit: 35
Breadth Requirement: Social & Behavioural Sciences

IDS6C10H3 Topics in International Development Studies
Contents to be determined by instructor.
Prerequisite: IDS6A01H3 & IDS6B01H3 & IDS6B02H3

IDS6C11H3 Issues in International Health
Key international health issues are explored in-depth in
three learning phases. We start with a reading and
discussion seminar on health inequities, globalization, and
health reform. Next, students develop group projects
designed to raise awareness around particular international
health problems. The third phase involves individual
research projects and class presentations.
Prerequisite: IDS6A01H3 & IDS6B04H3
Enrollment Limit: 35

International Studies

Faculty List
E.W. Dowler, A.M. (Harvard), Ph.D. (London School of Economics), Professor
A. Rubinfeld, A.B. (Allegheny), M.A., Ph.D. (Chicago), Professor
S. Solomos, B.A. (McGill), M.A., Ph.D. (Columbia), Professor

Breadth Requirement: Social & Behavioural Sciences

IDS6C12H3 Economics of Small Enterprise and Microcredit
Covers 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 ERM Program.
Prerequisite: IDS6A01H3 & [ECMA601H3 & ECMA603H3] or
[ECMA604H3 & ECMA605H3]
Exclusion: IDS6B01H3 Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

IDS6D01Y3 Post-placement Seminar and Thesis
Normal enrolment in this course will be made up of IDS
students who have completed their work placements. 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: IDS6A01H3 & students must have completed the
first three years of the IDS Specialist Co-op Program or an
equivalent and have completed their placement. Also,
permission of the instructor is required.

IDS6D02H3 Supervised Research in International Development
An independent studies course open only to students in the
Specialist Non-co-op Program in IDS. Students will carry out a
research project and write a research paper under the individual
supervision of a faculty member. Students will present the
results of their research in a conference at the end of the term.
Prerequisite: 15.0 credits including IDS6A01H3, completion of
Requirements 1-3 and at least 2.0 credits in Requirement 4 in
the Specialist Program. One of the credits from Requirement 4
must be at the C- or D-level. Students with a GPA of less than
2.5 will not be admitted.
Enrollment Limit: Restricted to students IDS Specialist BA
(non-co-op).

IDS6D14H3
IDS6D15H3 Directed Reading
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 Supervisor of
Studies before registering for this course.
Prerequisite: IDS6A01H3 & IDS6B01H3 & IDS6B02H3 &
permission of the instructor.
Intersections, Exchanges, Encounters in the Humanities

J. Triccaux, B.A., M.A., Ph.D. (Toronto), Professor
P. Kingston, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor
M. Malmqvist, B.A. (Dalhousie), Ph.D. (London), Associate Professor
S. J. Rockel, M.A., Ph.D. (Toronto), Associate Professor
K. Liddy, B.A. (Oxford), M.A. (Athens), Ph.D. (Emory), Assistant Professor
L. Chan, B.A., M.A. (Toronto), Senior Lecturer

MAJOR (CO-OPERATIVE) PROGRAM IN INTERNATIONAL STUDIES (ARTS)
The Major (Co-operative) Program in International Studies is under review and enrolment in it has been suspended indefinitely. Students who first enrolled at UTSC prior to the 2010 Summer Session will be able to complete the program provided they have completed (ISTB01H3) by the end of the 2010 Fall Session. For program requirements, please refer to the 2009-2010 UTSC Calendar.

MAJOR PROGRAM IN INTERNATIONAL STUDIES (ARTS)
The Major Program in International Studies is under review and enrolment in it has been suspended indefinitely. Students who first enrolled at UTSC prior to the 2010 Summer Session will be able to complete the program provided they have completed (ISTB01H3) by the end of the 2010 Fall Session. For program requirements, please refer to the 2009-2010 UTSC Calendar.

Note: (ISTB01H3) is no longer offered. Students may take IDS3108H3 as a substitute.

ISTB01H3 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 & POLB81H3 & (ISTB01H3) or IDS3108H3

Intersections, Exchanges, Encounters in the Humanities

Faculty List
D.E. Bender, M.A., Ph.D. (New York), Associate Professor
K.A. McLord, M.A. (McMaster), Ph.D. (McGill), Assistant Professor
A. Paz, B.A. (Queen's), M.A. (Tel Aviv), M.A. (Chicago), Ph.D. (Chicago), Assistant Professor
E.N. Rothman, M.A. (Tel Aviv), Ph.D. (Michigan), Assistant Professor

Program Director: THD
"Intersections, Exchanges, Encounters in the Humanities" (IEE) familiarizes students with current, cutting-edge research from across the humanities. IEE courses focus on where different traditions of inquiry intersect, and are taught by professors working in areas such as music, language, history, and beyond whose research steps across traditional boundaries. Students will be able to explore connections between subject areas by taking courses with faculty with diverse approaches and interests. IEE is designed as an advanced companion major meaning that students need to major in other discipline or department as well. The experiential component of IEE will help students understand how the complexity of humanities thought can be applied outside the university. IEE graduates will be superbly equipped for a wide range of future scholarly and professional endeavours. Since students will have mastered a variety of methodological and research approaches and encountered a rich breadth of subject areas, they will be uniquely qualified for graduate school, teacher's college, law school, or indeed any undertaking requiring flexibility of mind, creativity of engagement, and the ability to think through and analyze diverse information. IEE's approach emphasizes language competency, artistic and cultural expression, and experiential learning, and thus also provides an excellent foundation for careers in areas such as government, social activism, and community work. IEE students will be expected to complete both the requirements of the IEE major as well those of a major or specialist in an established program.

Guidelines for 1st year course selection
Students interested in applying to IEE at the end of their first year are strongly encouraged to take HUMA01H3 (Exploiting Key Questions in Humanities) in their first year. The IEE Study Guide is available at: www.utsc.utoronto.ca/~humdvi/ieg_in.html

MAJOR PROGRAM IN INTERSECTIONS, EXCHANGES, ENCOUNTERS IN THE HUMANITIES (ARTS)
Undergraduate Advisor: 416-287-7184 Email: iee-ugrad-advisor@utsc.utoronto.ca

Program Admission
Limited Enrollment. Typically, students will be required to apply for IEE at the end of the second term of their first year. Application procedures can be found at the Registrar's Office website: www.utsc.utoronto.ca/registrar. Minimum requirements for entry include a
commitment to completing a companion program of study and proven university-level performance.

**Companion program**
Because of the multi-disciplinary nature of this program, students are required to complete a major or specialist in a complementary program.

**Program Requirements**
Students must complete 8.0 full credits. The specific program requirements are as follows:

1. **Core Curriculum and Themes, Perspectives and Exchanges**
   - Students must complete 5.0 credits from the courses listed below of which at least 1.0 credit must be from the core curriculum courses:
     - Core curriculum
     - IEEB01H3 Human, Inhuman, and Non-Human
     - IEEB02H3 Senses, Sensibility, Sensuality
     - IEEB03H3 Time, Story, Perspective

2. **Themes, Perspectives and Exchanges**
   - Note: Some C-level IIE courses are offered as I & II. This is not meant to suggest a chronology, and students are welcome to take both to gain a breadth of perspective on key topics, which will vary with instructor.
     - IEEC01H3 Theories and Methods in the Study of Society and Culture
     - IEEC03H3 History of Animals and People
     - IEEC07H3 Perspectives on Languages and Culture I
     - IEEC12H3 Perspectives on Languages and Culture II
     - IEEC22H3 Media and Popular Culture in East and Southeast Asia
     - IEEC23H3 Perspectives on the Globalized and the Transnational II
     - IEEC31H3 Gender, Health, Science in Transnational Perspective
     - IEEC25H3 Gender in East Asian Science and Technology
     - IEEC41H3 Themes in Translation and Cultural Mediation I
     - IEEC51H3 Old Worlds, Strangers and Foreigners in the Mediterranean, 1200–1700
     - IEEC52H3 Environment, Society and Economy in Prehistoric and Roman Egypt
     - IEEC71H3 Exchanges in Performance and the Arts I
     - IEEC83H3 Issues, Approaches, and Exchanges in Popular Music

3. **Advanced Seminars in IIE**
   - All IIE students must fulfill at least 1.0 credits at the D-level. They must complete the capstone seminar, normally in the final year:
     - IEEC01H3 Capstone Seminar in Intersections, Exchanges, Encounters in the Humanities. Students must also pursue a 0.5 experiential learning credit. The experiential learning credit will be fulfilled in an IIE seminar and may include: an internship, community fieldwork, or applied arts. Some students may fulfill this requirement with a term abroad. Most students, however, will enroll in: IEEC03H3 Experiential Learning Seminar in Intersections, Exchanges, Encounters in the Humanities

4. **Language and Expressions Requirements**
   - Students must complete 2.0 credits in a single non-English language. Please see Language (LLG) or French (FRE) listings in this Catalog for UTSC offerings. Alternatively, students may fulfill a ‘expressions’ requirement take 2.0 credits in an applied studio/performance field, including: music performance, studio, or theatre performance. This requirement is designed specifically to introduce students to artistic and performance means of expressions and cannot be fulfilled with theoretical or historical classes. Students must choose between a language or an expression track.

   - **IEEB01H3 Human, Inhuman, and Non-Human**
     - How have definitions of human and non-human been expressed and changed over time? What does it mean to define someone or something as human or inhuman? Topics might include slavery, genocide, animals, monsters, artistic expression, cybernics, or disability. Assignments involve experiential learning. Required for all IIE majors.
     - Prerequisite: At least 4.0 credits
     - Breadth Requirement: History, Philosophy & Cultural Studies

   - **IEEB02H3 Senses, Sensibility, Sensuality**
     - This course focuses on how sensual responses acquire and shape meaning and considers the body, sexuality, visuality, taste, purity/pollution, and aura. Case studies may include food, music, consumption and material culture, or arts. Assignments involve experiential learning. Required for IIE majors.
     - Prerequisite: At least 4.0 credits
     - Breadth Requirement: Arts, Literature & Language
IEEC01103 Theories and Methods in the Study of Society and Culture
This course introduces students to key themes, texts, and critical methodologies in the study of society and culture, such as phenomenology, ethnography, deconstruction, Marxist theory, feminism, semiotics, queer theory, post modernism and post colonialism. The course will focus on methods employed by scholars across the humanities.
Prerequisite: At least 4.0 credits
Corequisite: [IEEB0103H or IEEB0203H or IEEB0303H]
Breadth Requirement: History, Philosophy & Cultural Studies

IEEC03033 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, zoo, breeding, and pet and the historical way the divide between humans and animals has been restructured. Through animals, people have often thought about what it means to be human. Same as
HISC0303H.
Prerequisite: At least 4.0 credits
Corequisite: 0.5 B-level credit in IEE or 1.0 credit in Humanities, English or Philosophy at the B, C or D-level or permission of instructor.
Exclusion: HIS5003H, HIS5003H
Breadth Requirement: History, Philosophy & Cultural Studies

IEEC11103 Perspectives on Languages and Culture I
How does language shape the way groups and individuals understand art, literature, music, conversation, and everyday actions? Combining readings from several fields this course explores the sociocultural practices which language helps to structure. Assignments include experiential learning. Topics will vary with instructor.
Prerequisite: At least 4.0 credits
Corequisite: For IEE students, at least one of IEEB0103H, IEEB0203H or IEEB0303H. For non-IEE students, at least 1.0 credit in the Humanities or Social Sciences at the B, C, or D-level.
Breadth Requirement: Arts, Literature & Language

IEEC12103 Perspectives on Languages and Culture II
How does language shape the way groups and individuals understand art, literature, music, conversation, and everyday actions? Combining readings from a variety of fields this course explores the sociocultural practices which language helps to structure. Topics will vary with instructor.
Prerequisite: At least 4.0 credits
Corequisite: For IEE students, at least one of IEEB0103H, IEEB0203H or IEEB0303H. For non-IEE students, at least 1.0 credit in the Humanities or Social Sciences at the B, C, or D-level.
Breadth Requirement: Arts, Literature & Language

IEEC21103 Media and Popular Culture in East and Southeast Asia
This course introduces students to media industries and commercial popular cultural forms in East and Southeast 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 Asia. Same as GASC41103.
Corequisite: 0.5 B-level credit in IEE or 1.0 credit in Humanities, English or Philosophy at the B, C or D-level or permission of instructor.
Exclusion: GASC41103, HUMC4103H
Enrollment Limit: 50
Breadth Requirement: History, Philosophy & Cultural Studies

IEEC22103 Perspectives on the Globalized and the Transnational II
What does globalization mean? And how can we study it by looking at phenomena such as consumption, mass media, transnational migration, and representations of home and abroad? This course explores this through case studies. Assignments include experiential learning. Topics vary with instructor.
Prerequisite: At least 4.0 credits
Corequisite: For IEE students, at least one of IEEB0103H, IEEB0203H or IEEB0303H. For non-IEE students, at least 1.0 credits in the Humanities at the B, C, or D-level.
Breadth Requirement: Arts, Literature & Language

IEEC31103 Gender, Health, Science in Transnational Perspective
This course provides an advanced introduction to feminism scholarship on science, health, and technology. It examines a history and culture of modern scientific research, health practice, and technologies in western and non-western societies. Same as WSTC21103.
Corequisite: 0.5 -level credit in IEE or 1.0 credit in Humanities, English or Philosophy at the B, C or D-level or permission of instructor.
Exclusion: WSTC21103
Enrollment Limit: 50
Breadth Requirement: History, Philosophy & Cultural Studies

IEEC32103 Gender in East Asian Science and Technology
This course examines how gender issues influence the history and contemporary development of science and technology in East Asian societies, including China, Japan, and Korea. Students will gain a critical perspective on the role of gender in shaping scientific knowledge and technological advancements in the context of East Asia. Same as GASC19103 and WSTC19103.
Prerequisite: At least 4.0 credits
Corequisite: 0.5 B-level credit in IEE or 1.0 credit in Humanities, English or Philosophy at the B, C or D-level or permission of instructor.
Exclusion: GASC19103 and WSTC19103
Enrollment Limit: 50
Breadth Requirement: Arts, Literature & Language

IEEC41103 Themes in Translation and Cultural Mediation
This course examines how individuals and groups engage in translation, conversion, and the representation of cultural difference. Through case studies it explores how and why boundaries between religions, cultures, languages, and societies have been drawn. Assignments include experiential learning. Topics vary with instructor.
Prerequisite: At least 4.0 credits
Corequisite: For IEE students, at least one of IEEB0103H, IEEB0203H or IEEB0303H. For non-IEE students, at least 1.0 credits in the Humanities at the B, C, or D-level.
Exclusion: HIS500H3
Breadth Requirement: History, Philosophy & Cultural Studies
IEEC5H3 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 differences more broadly. Topics include: monasteries, riches, pilgrimage, the rise of the university, merchant companies, mercantilists, piracy, captivity and slavery, tourism, and the birth of resident embassies. Same as HISC6H3.
Corequisite: 0.5 B-level credit in IEE or 1.0 credit in Humanities, English or Philosophy at the B, C or D-level or permission of instructor. Exclusion: HISC308H3 Enrolment Limits: 30 Breadth Requirement: Arts, Literature & Language

IEEC5H3 Environment, Society and Economy in Phoenician 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 CLAC059H3, HISC101H3.
Corequisite: 0.5 B-level credit in IEE or 1.0 credit in Humanities, English or Philosophy at the B, C or D-level or permission of instructor. Exclusion: CLAC059H3, HISC101H3 Breadth Requirement: History, Philosophy & Cultural Studies

IEEC7H3 Exchanges in Performance and the Arts I
This course investigates the relationship between art forms from the perspective of performance. Topics may include the social role of performance, the body in performance, performing identities, virtual performance, and the impact of technology on the performing body. Assignments include experiential learning. Topics may vary with instructor. Prerequisite: At least 4.0 credits Corequisite: For IEE students, at least one of IEEB00H3, IEEB02H3 or IEEB03H3. For non-IEE students, at least 1.0 credits in the Humanities at the B, C, or D-level. Breadth Requirement: Arts, Literature & Language

IEEC8H3 Issues, Approaches, and Exchanges in Popular Music
An examination of issues in the study of western and non-western popular music and their intersection with other fields of humanistic inquiry. It will explore models of critical analysis and questions surrounding ideology, performance, reception, technology and the relationship of popular music to other media including cyberspace, film and television. Same as VPMC54H3. Corequisite: 0.5 B-level credit in IEE or 1.0 credit in Humanities, English or Philosophy at the B, C or D-level or permission of instructor. Exclusion: VPMC54H3 Breadth Requirement: History, Philosophy & Cultural Studies

IEED01H3 Capstone Seminar in Intersections, Encounters in the Humanities
This course is the capstone course for IEE majors. Though topics will vary from year-to-year, the course will connect the themes, perspectives, and exchanges introduced throughout the program. Students will be expected to complete a lengthy research paper. This course is intended for IEE students in their final year.
Prerequisite: IEEB01H3 & IEEB02H3 & IEEB03H3 & at least 2 C-Level IEE courses & restricted to IEE major students Enrolment Limits: 25

IEED02H3 Experiential Learning Seminar in Intersections, Encounters in the Humanities
This course is the experiential learning course for IEE majors. Students will meet with the instructor to define a program of experiential learning appropriate to their interests and future goals. Projects might include research collaboration with faculty or community work. All students will complete a paper related to their program. This course is intended for IEE students in their final year.
Prerequisite: IEEB01H3 & IEEB02H3 & IEEB03H3 & at least 2 C-Level IEE courses & restricted to IEE major students Enrolment Limits: 25

Journalism
Faculty List
M. Mahani, B.A. (Dalhousie), Ph.D. (London), Associate Professor
K. McCrindle, M.A., Ph.D. (Toronto), Senior Lecturer

SPECIALIST (JOINT) PROGRAM IN JOURNALISM (ARTS)
Program Supervisor: (until June 30, 2011) K. McCrindle (416-287-7138) Email: journalism@uottawa.ca

This program may be taken in fulfillment of the requirements of a four-year (20-credit) Honours B.A. Degree and requires four to five years to complete. In addition to completing the requirements for the degree, students who intend to qualify for a diploma from Centennial College must undertake one additional semester in a field placement and complete a short non-credit course on journalism career management at Centennial.

Courses are taught at both U of T Scarbrough and at Centennial College (East York campus). Centennial courses are taken in the third and fourth years of the program. Students must be registered on a full-time basis while at Centennial College. This may include evenings and weekends.

Students must maintain a Cumulative Grade Point Average (CGPA) of 2.0 or higher to remain in the program.

Guidelines for 1st year course selection

Students intending to complete the program should include the following in their first year course selection:

MDA602H3 and JOUA01H3 & JOUA02H3 and HUMA01H3 & other courses of interest.

The Journalism Study Guide is available at: www.uottawa.ca/~bunzo/psg_jc.html
Note: Many of the new media courses codes have changed from MDS to JOU. See course descriptions.

Program Admission
Limited enrolment. Applicants must fill out a joint program application form, which is available online at www.utm.utoronto.ca/jprogs

Program Requirements
a. MDSA02H3 From Print to Digital: History of Media and Technology
   JOUA01H3 & JOUA02H3 Introduction to Journalism I & II
   HUMA01H3 Exploring Key Questions in Humanities
b. JOUB01H3 Journalism in the Age of New Media
   JOUB01H3 Covering Immigration and Transnational Issues
   JOUB02H3 Critical Journalism
   JOUB03H3 Fundamentals of Journalistic Writing
   HUMA02H3 Inquiry and Reasoning in the Humanities
c. Two full credits at the C or D-level, of which at least 1.0 credit is at the D-level.
d. Courses that satisfy the requirements of one Minor Program.
   Note: Courses used to meet this requirement may also be applied to Requirements a) through c).
e. Journalism Group I - students will be eligible to enrol in these courses after successfully completing at least 10 full credits at the University of Toronto Scarborugh (or permission of the Program Supervisor), including MDSA02H3, JOUA01H3, JOUA02H3, JOUB02H3, JOUB03H3, HUMA01H3, HUMA02H3.
   *JOUA06H3 Journalism Law and Ethics
   *JOUB11H3 News Reporting
   *JOUB14H3 Journalism Design
   *JOUB18H3 Imaging: Photography for Journalists
f. Journalism Group II - students will be eligible to enrol in these courses after successfully completing Group I above.
   *JOUB03H3 Magazine/Freelance Journalism
   *JOUB05H3 Advanced Interviewing Techniques
   *JOUB10H3 News Laboratory I
   *JOUB17H3 Radio News
   *JOUB20H3 Multiformat Journalism

JOUA01H3 Introduction to Journalism I
An introduction to the social, historical, philosophical, and practical contexts of the media. The course will examine various types of media and the role of the journalist. Students will be introduced to story forms and journalistic skills. Media coverage of current issues will be discussed. This course is open only to students in the Journalism Joint Program. Exclusion: (MDSA21H3)
Breadth Requirement: Arts, Literature & Language

JOUA02H3 Introduction to Journalism II
A continuation of JOUA01H3. The course is open only to students in the Journalism Joint Program.
Prerequisite: (MDSA21H3) or JOUA01H3
Exclusion: (MDSA22H3)
Breadth Requirement: Arts, Literature & Language

JOUA06H3 Journalism 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 Journalism Joint Program.
Prerequisite: 10 credits including [(MDSA21H3) or JOUA01H3], [(MDSA22H3) or JOUA02H3], [(MDSA26H3) or JOUB01H3], [(MDSA27H3) or JOUB03H3], (HUMB11H3).
Corequisite: JOUB11H3 & JOUB14H3 & JOUB18H3
Exclusion: (MDSA40H3)
Breadth Requirement: History, Philosophy & Cultural Studies
JOU81H3 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, disputas communities, and transnational issues which link Canada to the developing world.
This course is open only to students in the Journalism Joint Program.
Prerequisite: HUMA1H3 & (MDSA21H1 or JOU80H3 & (MDSA22H3 or JOU80H3)
Exclusion: MDSA27H3
Breadth Requirement: Arts, Literature & Language

JOU82H3 Critical Journalism
This course examines the representation of race, gender, class and power in the media, traditional journalistic practices and newscast cultures. 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. The course is open only to students in the Journalism Joint Program.
Prerequisite: 4.0 credits including HUMA1H3 & (MDSA21H3 or JOU80H3 & (MDSA22H3 or JOU80H3)
Exclusion: MDSA27H3
Breadth Requirement: Arts, Literature & Language

JOU83H3 Magazine/Free lance Journalism
An introduction to developing and selling quality magazine stories for multiple platform publication. Students learn techniques for both successful freelancing and magazine staff work. Students learn the importance of finding market niches, winning assignments, and carrying them out professionally. Assignments include producing source materials, a query letter and a feature-length story. This course is taught at Centennial College and is open only to students in the Journalism Joint Program.
Prerequisite: 12 credits, including JOU80H3 & JOU81H3 & JOU82H3 & JOU83H3
Corequisite: JOU85H3 & JOU86H3 & JOU87H3 & JOU88H3
Breadth Requirement: Arts, Literature & Language

JOU84H3 Advanced Interviewing Techniques
An advanced course that helps students to polish their interviewing techniques and correct weaknesses in their interviewing style. Students analyze recorded interviews, role-play, critique student interviews and conduct research. This is an “uplift” skills course as it is a course in learning how to ask the right questions.
This course is taught at Centennial College and is open only to students in the Journalism Joint Program.
Prerequisite: 12 credits, including JOU80H3 & JOU81H3 & JOU82H3 & JOU83H3
Corequisite: JOU80H3 & JOU81H3 & JOU82H3 & JOU83H3
Breadth Requirement: Arts, Literature & Language

JOU85H3 News Laboratory I
Practical experience on ‘The Observer’, an online and printed community newspaper serving Malvern, Highland Creek and West Hill and produced by journalism students.

The work includes research, field reporting, writing, photography, page design and audio/video websites production. This intensive course requires a large time commitment that may include evenings and weekends. This course is taught at Centennial College and is open only to students in the Journalism Joint Program.
Prerequisite: 12 credits, including JOU80H3 & JOU81H3 & JOU82H3 & JOU83H3
Corequisite: JOU80H3 & JOU81H3 & JOU82H3 & JOU83H3
Breadth Requirement: Arts, Literature & Language

JOU86H3 News Reporting
Practice is journalistic reporting and writing, starting with a simple news story and proceeding to feature and profile writing and coverage of municipal affairs. Class discussions focus on critical analysis of professional publications. Guest professional journalists discuss their experiences and current issues in journalism. This course is taught at Centennial College and is open only to students in the Journalism Joint Program.
Prerequisite: 10 credits including (MDSA21H3 or JOU80H3), (MDSA22H3 or JOU80H3), (MDSA26H3 or JOU80H3), (MDSA27H3 or JOU80H3), HUMA1H3.
Corequisite: JOU86H3 & JOU87H3 & JOU88H3
Breadth Requirement: Arts, Literature & Language

JOU87H3 Journalism Design
This course introduces the principles of design and electronic publishing. Students develop skills to produce multimedia layouts, including brochures, tabled and website formats, in preparation for experience on the print and online "Observer". Students will use InDesign to produce attractively designed journalistic layouts that reflect sound news judgment. This course is taught at Centennial College and is open only to students in the Journalism Joint Program.
Prerequisite: 10 credits including (MDSA21H3 or JOU80H3), (MDSA22H3 or JOU80H3), (MDSA26H3 or JOU80H3), (MDSA27H3 or JOU80H3), (HUMA1H3)
Corequisite: JOU86H3 & JOU87H3 & JOU88H3
Breadth Requirement: Arts, Literature & Language

JOU88H3 Radio News
The basics of radio journalism, including news, sports and entertainment reporting, interviewing, broadcast writing, performance and studio techniques. Students use digital audio recorders and handheld microphones to produce live-to-air (via Internet) newscasts and podcasts that are posted on the college’s podcast web page. Stories are edited on digital audio software.
This course is taught at Centennial College and is open only to students in the Journalism Joint Program.
Prerequisite: 12 credits, including JOU80H3 & JOU81H3 & JOU82H3 & JOU83H3
Corequisite: JOU85H3 & JOU86H3 & JOU87H3 & JOU88H3
Breadth Requirement: Arts, Literature & Language

JOU89H3 Imaging/Photography for Journalists
An introduction to the basic concepts of photography and a deeper examination of the principles of photographic composition. Students create photo stories using a range of equipment (portable, battery-operated flash equipment, digital cameras, etc.) and learn how to edit images for publication, either in print or in Web form. This course is taught at Centennial College and
is open only to students in the Journalism Joint Program. Pre-requisite: 10 credits including [Jou3a11H3] or Jou3a01H3, [Jou3a22H3] or Jou3a20H3, [Jou3b26H3] or Jou3b28H3 or Jou3b29H3, [Hum3b1H3]. Corequisites: Jou3a06H3 & Jou3b11H3 & Jou3b14H3

Breadth Requirement: Arts, Literature & Language

Jou3b20H3 Multipath Journaling

This course focuses on design and writing for multiplatform presentations of editorial content. Instruction includes gathering, editing and uploading text, audio and video for display on websites and mobile handheld devices. Students learn the mechanics of news website construction and maintenance and protocols for storytelling in a digital milieu. This course is taught at Centennial College and is open only to students in the Journalism Joint Program. Pre-requisite: 12 credits, including: Jou3a06H3, Jou3b11H3, Jou3b14H3 & Jou3b18H3
Corequisite: Jou3b20H3, Jou3b25H3, Jou3b10H3 & Jou3b17H3
Breadth Requirement: Arts, Literature & Language

Jou3b24H3 Journalism in the Age of New 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 navigate and work in New Media. This course is open only to students in the Journalism Joint Program. Exclusion: (MDSb21H3)

Jou3b30H3 Fundamentals of Journalistic Writing

As 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. This course is open only to students in the Journalism Joint Program. Pre-requisite: [Jou3a21H3] or Jou3a01H3 & [Jou3a22H3] or Jou3b26H3 & Hum3a01H3. Exclusion: (MDSb30H3)
Breadth Requirement: Arts, Literature & Language

Jou3c13H3 Boot Reporting

Student teams select a “beat,” conduct research, and prepare a proposal. Each student researches and writes five stories. Each team publishes a niche magazine and designs an accompanying website, using multi-media skills of writing, photography, audio and video. The time commitment for this advanced course may include evenings and weekends. This course is taught at Centennial College and is open only to students in the Journalism Joint Program. Pre-requisite: 14.5 credits, including: Jou3b03H3, Jou3b05H3, Jou3b10H3, Jou3b17H3 & [Jou3b09H3] or Jou3b20H3
Corequisite: Jou3c16Y3 & Jou3c17H3
Breadth Requirement: Arts, Literature & Language

Jou3c10Y3 News Laboratory II

Students play more senior roles to produce content for the online and print edition of "The Observer." Participants attend staff meetings during class time, and research and write stories outside class. This intensive course requires a large time commitment that may include evenings and weekends. This course is taught at Centennial College and is open only to students in the Journalism Joint Program. Pre-requisite: 14.5 credits, including: Jou3b03H3 & Jou3b05H3 & Jou3b10H3 & Jou3b17H3 & [Jou3b09H3] or Jou3b20H3
Corequisite: Jou3c13H3 & Jou3c17H3
Breadth Requirement: Arts, Literature & Language

Jou3c17H3 Television News

This course focuses on video journalism skills for a multi-platform environment. Whether covering stories for traditional television news or a website, students learn how to shoot, edit and produce editorial content. Students also staff a live-to-air news program where they anchor as well as work behind the scenes. This course is taught at Centennial College and is open only to students in the Journalism Joint Program. Pre-requisite: 14.5 credits, including: Jou3b03H3 & Jou3b05H3 & Jou3b10H3 & Jou3b17H3 & [Jou3b09H3] or Jou3b20H3
Corequisite: Jou3c13H3 & Jou3c16Y3
Breadth Requirement: Arts, Literature & Language

Media Studies

MDSa02H3 From Print to Digital: History of Media and Technology See the Media Studies section of this Calendar for full course descriptions.

Languages

Faculty List

P. R. Lati, M.A., Ph.D. (Cornell), Professor Emeritus
C. V. Pennefather, M.A., Ph.D. (Toronto), Professor Emeritus
R. Smythe, B.A., M.Litt. (Bristol), M.A., Ph.D. (Michigan), Professor Emeritus
H. Witteman, M.A., Ph.D. (Max.), Professor Emeritus
H. Wu, M.A., Ph.D. (Toronto), Senior Lecturer
I. Dixon, B.A., M.A., Ph.D. (Toronto), Lecturer
N. Sajid, B.A., M.A., M. Phil. (JNU), Lecturer

The courses listed under LGG include language courses in Arabic, Hindi, Latin, Mandarin Chinese, Sanskrit, Spanish and Tamil. Registration in all courses with the prefix LGG is subject to the approval of the instructor. Students 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
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inappropriate for the level of the course will not be approved for enrolment. In some courses, the status of students will be listed as "unenroll" (UNT) until they are approved (APP) by their instructors. Note that students are not permitted to take courses in a language in the wrong sequence (i.e., a lower-level course after a higher-level one).

For further information about language courses, please consult the Co-ordinator of Language Studies, at language-coordinator@utsc.utoronto.ca or, where appropriate, the instructors of these courses.

Language Citation

U of T Scarborough offers a growing range of language opportunities and, as students seek international study, work opportunities and postgraduate study, they may be assisted by a notation of language proficiency. See the Language Citation section of the Calendar for more information about this notation.

The Languages Study Guide is available at: www.utsc.utoronto.ca/~husain/prog_la.html

LGGA30H3 Introductory Spanish I

An elementary course for students with no knowledge of Spanish. The course develops listening, speaking, reading, and writing skills through culturally-based materials. Oral and written materials are enhanced by audio-visual and computer-based activities.

Exclusion: Grade 12 Spanish, 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: 30
Breadth Requirement: Arts, Literature & Language

LGGAS1H3 Introductory Spanish II

A continuation of LGGAS1H3. Prerequisite: LGGA30H3 or permission of instructor. Exclusion: Grade 12 Spanish, 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, including those students who meet the prerequisites.

Enrolment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGGAD40H3 Introductory Modern Standard Arabic I

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.

Exclusions: ARAB12Y, 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.

Note: students whose home language is a variety of spoken Arabic should enroll in LGGAD41H3.

Enrolment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGGAS1H3 Introductory Modern Standard Arabic II

A continuation of LGGAD40H3. This course will build on the skills learned in LGGA40H3 and will provide further practice in reading and writing in the Arabic script.

Prerequisite: LGGAD40H3 or permission of instructor. Exclusion: ARAB12Y, 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, including those students who meet the prerequisite.

Enrolment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGGAS1H3 Introductory Latin I

An elementary course for students with no knowledge of classical Latin. An introduction to the structure of Latin, with some attention to the place of Latin in the Indo-European language family and its cognate and derivative relationships.

Exclusion: LAT100Y or higher, LAT102H, LAT150H. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.

Enrolment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGGAS1H3 Introductory Latin II

A continuation of LGGAS1H3, with some reading of elementary texts. Prerequisite: LGGAS1H3 or permission of instructor. Exclusion: LAT100Y or higher, LAT102H, LAT150H. 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 Requirement: History, Philosophy & Cultural Studies

LGGAS41H3 Introductory Sanskrit I

An introduction to Sanskrit, the classical language of ancient India. Sanskrit is also the language of traditional Hinduism and the basis of early Buddhist texts. Students are introduced to the structural properties of Sanskrit and the Devanagari script, used in various North Indian languages such as Hindi, Marathi and Bengali.

Exclusions: EAS282Y, NEW210Y, REL260Y, SANS191Y. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.

Enrolment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGGAS42H3 Introductory Sanskrit II

This course is a continuation of Sanskrit I. Students should gain enough familiarity with the script and the structure of the language to be able to read short texts in Sanskrit. Prerequisite: LGGAS41H3 or permission of instructor. Exclusion: EAS282Y, NEW210Y, REL260Y, SANS191Y. 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 Requirement: History, Philosophy & Cultural Studies
LGGA60H3 Introductory Mandarin I
A comprehensive introduction to Mandarin as a foreign language for students with no previous knowledge of any aspect of any Chinese dialect. This course emphasizes integrated practical Chinese instruction in listening, speaking, reading, writing (from characters to compositions) and translation (from Chinese into English and from English into Chinese).
Exclusion: All EAS, CHI & LGG Chinese language courses. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGGA61H3 Introductory Mandarin II
A continuation of LGGA60H3. This course will build on the skills learned in LGGA60H3.
Prerequisite: LGGA60H3 or LGGA61H3 or permission of instructor.
Exclusion: All EAS, CHI & LGG Chinese courses except LGGA60H3 or LGGA61H3. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrollment Limits: 30
Breadth Requirement: 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: HIN21Y, NEW21Y, any knowledge of Hindi. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course. Note: Students who speak Hindi or Urdu as a home language should enrol in LGGB70H3 or LGGB71H3.
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGGA71H3 Introductory Hindi II
A continuation of LGGA70H3.
Prerequisite: LGGA70H3 or permission of instructor
Exclusion: HIN21Y, NEW21Y, any 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.
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGGA40H3 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: NEW21Y, 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.
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGGA75H3 Introductory Tamil II
A continuation of LGGA74H3.
Prerequisite: LGGA74H3 or permission of instructor
Exclusion: NEW21Y, 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.
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGGA60H3 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. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGGA81H3 Introductory Japanese II
A continuation of Introductory Japanese I.
Prerequisite: LGGA80H3 or permission of instructor
Exclusion: EAS120Y. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGGB32H3 Intermediate Spanish I
This course reviews Spanish usage and grammar and builds proficiency in listening, speaking, reading, and writing skills.
There is a strong focus on the study of culture and the development of cross-cultural analysis.
Prerequisite: LGGB31H3 or permission of instructor
Exclusion: SPA220Y, native or near-native proficiency in Spanish. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGGB33H3 Intermediate Spanish II
A continuation of LGGB32H3.
Prerequisite: LGGB32H3 or permission of instructor
Exclusion: SPA220Y, native or near-native proficiency in Spanish. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGGB42H3 Intermediate Modern Standard Arabic I
Building on LGGA41H3, this course develops reading, writing, listening, and speaking skills in standard Arabic and introduces new vocabulary and grammatical concepts in context.
The course also includes discussion of colloquial Arabic and cultural aspects of everyday life in Arabic-speaking
LGBB4H3 Intermediate Modern Standard Arabic II
A continuation of LGBB4H3. Through the use of authentic texts this course builds on language skills and cultural knowledge acquired in previous courses. The course also includes translation from Arabic to English and vice versa.
Pre-requisite: LGBB4H3
Exclusion: ARA312Y, NML310Y, Arabic courses in high school: advanced knowledge of Arabic. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrollment Limit: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGBB4H3 Modern Standard Arabic I for Students with Prior Background
A course for students exposed to informal spoken Arabic who wish to reinforce their ability to understand, speak, read and write Modern Standard Arabic. This course includes instruction in grammar, reading comprehension, and composition, through contemporary literary and non-literary texts, and builds oral proficiency with class discussions and audio-visual materials.
Exclusion: Not for students educated in Arabic-language schools
Enrollment Limit: 30
Breadth Requirement: Arts, Literature & Language

LGBB54H3 Intermediate Sanskrit I
Students will gain further experience in structure and vocabulary, through exposure to a variety of types of text such as fable, instructional and drama. Classes will meet as a workshop setting.
Pre-requisite: LGBA53H3
Exclusion: EASH31H, SAN392Y or higher.
Enrollment Limit: 30
Breadth Requirement: Arts, Literature & Language

LGBB55H3 Intermediate Sanskrit II
A continuation of Intermediate Sanskrit I. The class also works on palaeography, looking at a single text copied in different character sets by different hands.
Pre-requisite: LGBB54H3 or permission of instructor
Exclusion: EASH31H, SAN392Y or higher.
Enrollment Limit: 30
Breadth Requirement: History, Philosophy & Cultural Studies

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LGBB60H3 Intermediate Mandarin I
This course will develop listening, speaking, reading, and writing skills in Mandarin. Writing exercises will help students to progress from characters to compositions and will include translation from Mandarin to English and vice versa. The course is not open to students who have more than the rudiments of Mandarin.
Pre-requisite: LGBA61H3 or (LGBA60H3) or permission of instructor
Exclusion: All EAS & CHI 200- and higher level Chinese language courses; all B- and higher level LGO 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.
Enrollment Limit: 30
Breadth Requirement: Arts, Literature & Language

LGBB61H3 Intermediate Mandarin II
A continuation of LGBB60H3.
Pre-requisite: LGBB60H3 or (LGBB63H3) or permission of instructor
Exclusion: All EAS & CHI 200- and higher level Chinese courses; all B- and higher level LGO Chinese language courses except LGBB64H3 or LGBB65H3; 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.
Enrollment Limit: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGBB62H3 Intermediate Mandarin 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 LGBB64H3 and LGBB65H3.
Pre-requisite: LGBA61H3 or permission of instructor
Exclusion: All EAS & CHI 200- and higher level Chinese courses; all B- and higher level LGO Chinese language 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.
Enrollment Limit: 30
Breadth Requirement: Arts, Literature & Language

LGBB63H3 Intermediate Mandarin for Heritage Students II
A continuation of LGBB62H3.
Pre-requisite: LGBB62H3 or permission of instructor
Exclusion: All EAS & CHI 200- and higher level Chinese courses; all B- and higher level LGO Chinese language courses except LGBB64H3.
Enrollment Limit: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGBB64H3 Mandarin 1 for Students with Prior Background
An introduction to Mandarin 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 literacy through reading, writing and translation (English to Chinese and Chinese to English).
Exclusion: LGBA62H3. All EAS, CHI & LGO Chinese
language courses. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGBB8583H Mandariner II for Students with Prior Background
A continuation of LGBB8483H. Prerequisite: LGBB8483H or (LGBA4283H) Exclusion: (LGBA4383H), All EAS, CHI & LGB Chinese language courses except LGBB8683H or (LGBA6283H).
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 Requirement: History, Philosophy & Cultural Studies

LGBB7073H 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, films and other media. Prerequisite: Permission of instructor 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 Requirement: Arts, Literature & Language

LGBB7173H Hindi II for Students with Prior Background
Continuation of LGBB7073H. Prerequisite: LGBB7073H 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 Requirement: History, Philosophy & Cultural Studies

LGBB7473H 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: LGBA4273H or permission of instructor Exclusion: Not for students educated in Tamil Nadu or Sri Lanka. Enrolment Limits: 25
Breadth Requirement: Arts, Literature & Language

LGCSC383H Advanced Spanish: Language, Culture and Literature
Focus is on advanced language skills through study of literature and arts in Spain and the Americas within their cultural context. The course includes literary and non-literary texts and other media, with advanced grammar review, composition and conversation. Evaluation is based on compositions, participation and presentations, and examinations. Prerequisite: LGBB3383H or permission of instructor Exclusion: SPA320Y, native or near-native proficiency in Spanish
Enrolment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGCC3273H Business Spanish
The Spanish language in a business context. Designed with the Management Program in mind, the aim is to develop facility in specialized uses of the Spanish language. The course uses texts and audio-visual materials to present the business world from within and through popular culture and literature. Prerequisite: LGBB3383H or permission of instructor Exclusion: SPA3231H
Enrolment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGCC3383H Introduction to Spanish Translation and Interpretation
A workshop in translation to and from Spanish, focusing on basic theories and problems of translation. Translation of texts from a variety of sources, including law, mass media, business, and science will broaden students' vocabulary and develop proficiency in handling non-literate modes of expression. Prerequisite: LGCC3483H or LGCC4483H or LGCC3583H
Enrolment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGCC3483H Advanced Spanish: Spain
Focus is on advanced language skills through the study of history, popular culture, and the arts. Using literary and historical readings, film and other media from Spain, the course includes advanced grammar review, composition and conversation. Evaluation is based on written compositions, class participation and presentations, and examinations. Prerequisite: LGBB3383H or permission of instructor Exclusion: SPA320Y, native or near native proficiency in Spanish
Enrolment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGCC3583H Advanced Spanish: The Americas
Focus is on advanced language skills through the study of history, popular culture, and the arts. Using literary and historical readings, film and other media from Latin America, the course includes advanced grammar review, composition and conversation. Evaluation is based on written compositions, class participation and presentations, and examinations. Prerequisite: LGBB3383H or permission of instructor Exclusion: SPA320Y, native or near native proficiency in Spanish
Enrolment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGCC9983H NON-CREDIT: Spanish Across the Disciplines
Non-credit course applying Spanish language skills to a course with related content. Students co-enrolled in a relevant course in Humanities, Social Sciences, Arts, etc. A portion of the course work such as readings or written assignments will be completed in Spanish. Course may be used to complete the Language Citation. Prerequisite: LGCSC383H or LGCC3283H or LGCC4383H or LGCC3583H. Prior arrangement with course instructors required.
Advanced Mandarin I
This course develops all four language skills (speaking, listening, reading, and writing), 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.

Note: This course is not for native or near-native speakers.
Prerequisite: LGGC68H3 or LGGB84H3 or permission of instructor.
Exclusion: LGGC62H3 or higher, all Chinese language courses with the exception of CHIS10VY, CHIS200Y, EAS100VY & EAS200Y
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

Advanced Mandarin II
A continuation of LGGC68H3.

Note: This course is not designed for native or near native speakers.
Prerequisite: LGGC68H3 or permission of instructor.
Exclusion: LGGC62H3 or higher, all EAS Chinese language courses with the exception of EAS100VY and EAS200Y
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

Advanced Mandarin: Culture in the East and West
Develops skills in spoken Mandarin and written varieties of Chinese. The course focuses on contrasts between Chinese and Western cultures. This course presents a variety of cultural and literary materials, through which students will further their language skills and learn approximately 400 new characters.

Prerequisite: LGGB68H3 or permission of instructor.
Note: Students who complete LGGB61H3 may request permission of instructor to take this course.
Exclusion: LGGB68H3, (LGGB67H3), LGGC68H3, LGGC66H3, LGGC61H3, EAS200VY, EAS300VY
Enrollment Limits: 25
Breadth Requirement: Arts, Literature & Language

Advanced Mandarin: Pop Culture and the State
Develops skills in spoken Mandarin and written varieties of Chinese. The course focuses on the vision of the Chinese state presented in popular culture. This course presents a variety of text and non-text materials, through which students will further their language skills and learn approximately 400 new characters.

Prerequisite: LGGB68H3 or permission of the instructor.
Note: Students who complete LGGB61H3 may request permission of instructor to take this course.
Enrollment Limits: 25
Breadth Requirement: History, Philosophy & Cultural Studies

Reading Chinese: China from the Inside Out
Intended for students from Hong Kong, Macau, Taiwan and elsewhere, but usually excluding mainland China. Students must already know 2,500 complex Chinese characters and be able to read everyday publications, e.g., newspapers. Pinyin, compound-simplified character conversion, and fluency are emphasized through reading and discussing advanced materials, presentations, and essay writing.
Exclusion: EAS200VY (LGGB61H3), (LGGB66H3). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.

Note: The sequence of courses offered in the Heritage and Non-Heritage streams of Mandarin Chinese are not adequate preparation for this course. Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

Reading Chinese: Global Chinese Perspectives
A continuation of LGGC64H3. (LGGB66H3) or (LGGB61H3) or permission of instructor.
Note: The sequence of courses offered in the Heritage and Non-Heritage streams of Mandarin Chinese are not adequate preparation for this course.
Exclusion: EAS200VY, (LGGB62H3), (LGGB67H3). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

Classical Chinese I
This course will examine classical Chinese texts such as Zen parables, philosophical maxims, proverbial sayings, rhyming couplets, short poems, and Buddhist stories. A working knowledge of modern Chinese will be assumed.
Prerequisite: LGGC65H3 or LGGB67H3 or (LGGB62H3) or (LGGB61H3). Exclusion: EAS200VY, EAS300VY
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

Classical Chinese II
A continuation of LGGC64H3 (Classical Chinese I). Prerequisite: LGGC64H3 or permission of instructor.
Exclusion: EAS200VY, EAS300VY
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

Advanced Hindi: From Hindustans 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: (LGGB61H3) or (LGGB67H3) or permission of instructor.
Exclusion: Not for students educated in India.
Enrollment Limits: 25
Breadth Requirement: Arts, Literature & Language

Experimental Learning in a Language Community
A course for language learning in a community setting. In this course, students further their language proficiency outside the classroom with a project requiring the use of Arabic, Mandarin, Hindi, Spanish, or Tamil for 4-10 hours per week in a community environment. Requires final paper written in the community language.
Prerequisite: 8.5 credits, including a C-level language course, or permission of instructor.

LGDC96H3
Advanced Mandarin I
This course develops all four language skills (speaking, listening, reading, and writing), 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.

Note: This course is not for native or near-native speakers.
Prerequisite: LGGC68H3 or (LGGB84H3) or permission of instructor.
Exclusion: LGGC62H3 or higher, all Chinese language courses with the exception of CHIS10VY, CHIS200Y, EAS100VY & EAS200Y
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGDC68H3
Advanced Mandarin II
A continuation of LGGC68H3.

Note: This course is not designed for native or near native speakers.
Prerequisite: LGGC68H3 or permission of instructor.
Exclusion: LGGC62H3 or higher, all EAS Chinese language courses with the exception of EAS100VY and EAS200Y
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGDC58H3
Advanced Mandarin: Culture in the East and West
Develops skills in spoken Mandarin and written varieties of Chinese. The course focuses on contrasts between Chinese and Western cultures. This course presents a variety of cultural and literary materials, through which students will further their language skills and learn approximately 400 new characters.

Prerequisite: LGGB68H3 or permission of instructor.
Note: Students who complete LGGB61H3 may request permission of instructor to take this course.
Exclusion: LGGB68H3, (LGGB67H3), LGGC68H3, LGGC66H3, LGGC61H3, EAS200VY, EAS300VY
Enrollment Limits: 25
Breadth Requirement: Arts, Literature & Language

LGDC53H3
Advanced Mandarin: Pop Culture and the State
Develops skills in spoken Mandarin and written varieties of Chinese. The course focuses on the vision of the Chinese state presented in popular culture. This course presents a variety of text and non-text materials, through which students will further their language skills and learn approximately 400 new characters.

Prerequisite: LGGB68H3 or permission of the instructor.
Note: Students who complete LGGB61H3 may request permission of instructor to take this course.
Enrollment Limits: 25
Breadth Requirement: History, Philosophy & Cultural Studies

LGDC54H3
Reading Chinese: China from the Inside Out
Intended for students from Hong Kong, Macao, Taiwan and elsewhere, but usually excluding mainland China. Students must already know 2,500 complex Chinese characters and be able to read everyday publications, e.g., newspapers. Pinyin, compound-simplified character conversion, and fluency are emphasized through reading and discussing advanced materials, presentations, and essay writing.
Exclusion: EAS200VY, (LGGB61H3), (LGGB66H3). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.

Note: The sequence of courses offered in the Heritage and Non-Heritage streams of Mandarin Chinese are not adequate preparation for this course. Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGDC65H3
Reading Chinese: Global Chinese Perspectives
A continuation of LGGC64H3. (LGGB66H3) or (LGGB61H3) or permission of instructor.
Note: The sequence of courses offered in the Heritage and Non-Heritage streams of Mandarin Chinese are not adequate preparation for this course.
Exclusion: EAS200VY, (LGGB62H3), (LGGB67H3). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGDC68H3
Classical Chinese I
This course will examine classical Chinese texts such as Zen parables, philosophical maxims, proverbial sayings, rhyming couplets, short poems, and Buddhist stories. A working knowledge of modern Chinese will be assumed.
Prerequisite: LGGC65H3 or LGGB67H3 or (LGGB62H3) or (LGGB61H3). Exclusion: EAS200VY, EAS300VY
Enrollment Limits: 30
Breadth Requirement: Arts, Literature & Language

LGDC67H3
Classical Chinese II
A continuation of LGGC64H3 (Classical Chinese I). Prerequisite: LGGC64H3 or permission of instructor.
Exclusion: EAS200VY, EAS300VY
Enrollment Limits: 30
Breadth Requirement: History, Philosophy & Cultural Studies

LGDC70H3
Advanced Hindi: From Hindustans 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: (LGGB61H3) or (LGGB67H3) or permission of instructor.
Exclusion: Not for students educated in India.
Enrollment Limits: 25
Breadth Requirement: Arts, Literature & Language

LGDC91H3
Experimental Learning in a Language Community
A course for language learning in a community setting. In this course, students further their language proficiency outside the classroom with a project requiring the use of Arabic, Mandarin, Hindi, Spanish, or Tamil for 4-10 hours per week in a community environment. Requires final paper written in the community language.
Prerequisite: 8.5 credits, including a C-level language course, or permission of instructor.
Linguistics

Faculty List

R.J. Brinton, B.A. (CUNY), M.A., Ph.D. (Chicago), Professor
R. Holm-Park, M.A., Ph.D. (Toronto), Associate Professor
R. Smyth, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor
Y. Kang, B.A. (Sesnon National), Ph.D. (MIT), Assistant Professor
C. Narrum, A.B. (Berkeley), M.A. (Berkeley), Ph.D. (Michigan), Assistant Professor

Undergraduate Advisor: 416-289-3463 Email: lin-undergrad-advisor@uottawa.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). Sub-fields of linguistics include sociolinguistics (language variation according to region, gender, class, etc.), as well as the social functions of language; psycholinguistics (language acquisition and processing, and their disorders); 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 enroll 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 and for students who are interested in general and theoretical linguistics.

Guidelines for 1st year course selection

Students intending to complete the Specialist Program in Linguistics 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.

Note: For co-op opportunities related to the Specialist Program in Psycholinguistics, the Specialist Program in Linguistics and the Major Program in Linguistics, please see Humanities Co-operative Program section in this Calendar.

The Linguistics/Psycholinguistics Study Guide is available at: www.uottawa.ca/humde/pgrp_3.html

SPECIALIST PROGRAM IN PSYCHOLINGUISTICS (ARTS)

Undergraduate Advisor: 416-289-3463 Email: lin-undergrad-advisor@uottawa.ca

Program Requirements

Students must complete 12.5 full credits, including 4.0 full credits at the C- and D-levels of which 1.0 full credit must be at the D-level as follows:

1. LINA01H3 Introduction to Linguistics
2. LINA02H3 Applications of Linguistics
3. PSYA01H3 Introductory Psychology: Part I
4. PSYA02H3 Introductory Psychology: Part II
5. LINB04H3 Phonology 1
6. LINB09H3 Phonetics: The Study of Speech Sounds
7. PLIC24H3 First Language Acquisition
8. PLIC35H3 Psycholinguistics
9. PHILC5H1 Quantitative Methods in Linguistics
10. LINC02H3 Phonology II
11. LINC05H3 Morphology
12. LINC12H3 Syntactics I
13. LINC12H3 Syntactics II
14. LINC13H3 Semantics: The Study of Meaning
15. LINC14H3 Structure of American Sign Language
16. LINC09H3 Phonetic Analysis
17. LINC25H3 Second Language Acquisition
18. PLIC15H1 Speech Perception
19. PLIC34H1 Psycholinguistics of Reading
184 Linguistics

PLUD4H3 Acquisition of the Mental Lexicon
PLUD5H3 Disorders of Speech and Language
6. 1.5 full credits from the following courses:
PLIC6H3 Quantitative Methods in Linguistics (highly recommended)
PSYB2H3 Introduction to Developmental Psychology
PSYB5H3 Perception and Cognition or PSYB57H3 Memory and Cognition
PSYB6H3 Human Brain and Behaviour
PSYC7H3 Advanced Developmental Psychology
7. 2.0 further full credits in LIN and/or PLI

SPECIALIST PROGRAM IN LINGUISTICS (ARTS)
Undergraduate Advisor: 416-288-2682 Email: lin-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 12.0 full credits, including 4.0 full credits at the C- and D-level of which 1.0 full credit must be at the D-level as follows:

1. All of the following:
   LINA40H3 Introduction to Linguistics
   LINA62H3 Applications of Linguistics
   LINB40H3 Phonology I
   LINB60H3 Syntax I
   LINB69H3 Phonetics: The Study of Speech Sounds
   LINB1H3 Language Diversity and Language Universals
   LINC2H3 Phonology II
   LINC5H3 Morphology
   LINC11H3 Syntax II
   LINC12H3 Semantics

2. 3.0 full credits from the following, including at least 1.0 full credit from Group A and at least 1.0 full credit from Group B:

   Group A
   LINA16H3 Structure of American Sign Language
   LINB20H3 Sociolinguistics
   LINB33H3 Language, Power and Persuasion
   LINC9H3 Language Change
   LINC99H3 Phonetic Analysis
   LINC1H3 Writing Systems
   LINC2H3 Language and Ethnicity
   LINC5H3 Language and Gender
   LIND29H3 Seminar in Sociolinguistic Methodologies

   Group B
   PLIB2H3 Second Language Acquisition
   PLIC6H3 Speech Perception
   PLIC63H3 First Language Acquisition
   PLIC59H3 Psycholinguistics
   PLIC65H3 Quantitative Methods in Linguistics
   PLID4H3 The Psycholinguistics of Reading
   PLID4H3 Acquisition of the Mental Lexicon
   PLID5H3 Disorders of Speech and Language
   (PLID6H3 Seminar in Psycholinguistics)

3. 2.0 full credits of language study in one or more languages, which may include FFL or LGG courses or language courses at another campus.

4. A further two full credits in any LIN, PLI, JAL or ILP courses.

MAJOR PROGRAM IN LINGUISTICS (ARTS)
Undergraduate Advisor: 416-288-2682 Email: lin-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete eight full credits, as follows:

1. LINA01H3 Introduction to Linguistics
   LINA20H3 Applications of Linguistics
   LINB40H3 Phonology I
   LINB60H3 Syntax I
   LINB9H3 Phonetics: The Study of Speech Sounds

2. One of the following:
   LINB20H3 Sociolinguistics
LIN053H1 Morphology
LIN012H3 Semantics: The Study of Meaning
3. Four further full credits in LIN and/or PLL, of which at least two credits must be at the C- or D-level.
4. One full credit in a language.

MINOR PROGRAM IN LINGUISTICS (ARTS)
Program Supervisor: R. I. Binnick Email: binnick@utac.utoronto.ca

Program Requirements
Students must complete four full credits, as follows:
All of the following courses:
1. LINA01H3 Introduction to Linguistics
2. LINA02H3 Applications of Linguistics
2. Any two of the following:
   LINB04H3 Phonology I
   LINB06H3 Syntax I
   LINB09H3 Phonetics: The Study of Speech Sounds
3. Two further full credits in LIN and/or PLL of which at least one credit must be at the C- or D-level.

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
Breadth Requirement: 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 language; language disorders; the psychology of language; language and in the brain; and the sociolinguistics of language.
Prerequisite: LINA01H3
Exclusion: LIN100Y
Breadth Requirement: Arts, Literature & Language

LINA10H3 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
Enrollment Limit: 35
Breadth Requirement: Arts, Literature & Language

LINB04H3 Phonology I
Practice in analysis of sound patterns in a broad variety of languages.
Prerequisite: LINB09H3
Exclusion: LIN229H
Breadth Requirement: Arts, Literature & Language

LINB06H3 Syntax I
Practice in analysis of sentence structure in a broad variety of languages.
Prerequisite: LINA01H3
Exclusion: LIN232H
Breadth Requirement: Arts, Literature & Language

LINB09H3 Phonetics: The Study of Speech Sounds
An examination of physiological and acoustic bases of speech.
Prerequisite: LINA01H3 Exclusion: LIN228H
Breadth Requirement: Natural Sciences

LINB13H3 Language Diversity and Language Universals
An introduction to linguistic typology with special emphasis on cross-linguistic variation and uniformity in morphology and syntax.
Prerequisite: LINB06H3 or permission of the instructor
Exclusion: LIN030H
Breadth Requirement: Arts, Literature & Language

LINB17H3 The Structure of English Sentences
Description and analysis of various aspects of the structure and grammar of English sentences, with emphasis on those distinctive and characteristic features most of interest to teachers and students of the language.
Exclusion: LIN204H
Breadth Requirement: Arts, Literature & Language

LINB18H3 The Structure of English Words
Description and analysis of the structure of English words, including the sound and word structure systems, with emphasis on those distinctive and characteristic features most of interest to teachers and students of the language.
Exclusion: LIN203H. LINB18H3 may not be taken after or concurrently with LINC03H.
Breadth Requirement: Arts, Literature & Language

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), LIN258H, FREC48H
Breadth Requirement: Social & Behavioural Sciences

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 & LINB09H3
Exclusion: LIN22H
Breadth Requirement: Arts, Literature & Language
LING029H3 Morphology
Core issues in morphological theory, including properties of the lexicon, combinatorial principles governing complex word-formation, and interactions between word-formation and phonology, syntax and semantics.
Corequisite: LINC040H3 & LINC061H3
Exclusion: LINC031H, LINC033H, (LING050H3)
Breadth Requirement: Arts, Literature & Language

LING029H3 Language Change
An introduction to language change and language relationships.
Prerequisite: LINC040H3
Exclusion: LIN532H
Breadth Requirement: History, Philosophy & Cultural Studies

LING029H3 Phonetic Analysis
Practical application of phonetic theory with special emphasis on instrumental and experimental techniques.
Prerequisite: LINC091H3
Exclusion: LIN425H
Enrollment Limit: 15
Breadth Requirement: Natural Sciences

LING11H3 Syntax II
Basic issues in syntactic theory, including principles and constraints governing sentence formation and interfaces with other areas of language structure such as morphology and semantics, with emphasis on universal principles.
Prerequisite: LINC061H3
Exclusion: LINC233H, LIN311H
Breadth Requirement: Arts, Literature & Language

LING12H3 Semantics: The Study of Meaning
An introduction to the role of meaning in the structure, function, and use of language.
Prerequisite: LINC061H3
Exclusion: LINC414H, (FRC494H), FRED483
Breadth Requirement: History, Philosophy & Cultural Studies

LING18H3 Writing Systems
The sociolinguistics of written language, and its relationship to speech. The origin and relatives of the Latin alphabet. The types of writing systems, as exemplified by representative written languages (Chinese, Japanese, Koran, Arabic, Sanskrit, etc.), and the principles of their form and function.
Prerequisite: LINB091H3
Exclusion: JAL328H
Breadth Requirement: Arts, Literature & Language

LING27H3 Language and Ethnicity
How different ethnic groups become identified by their speech, and concentrating especially on bilingualism in immigrant communities. Conversational pragmatics (e.g. code-switching, language contact issues (e.g. borrowing), and how speakers’ consciousness of such phenomena affects their use.
Prerequisite: One full credit at the B-level in LIN or PLI, excluding LINC170H3 and LINC181H3
Breadth Requirement: Social & Behavioural Sciences

LING28H3 Language and Gender
An introduction to the research on differences between women and men in how they use language and how they behave in conversations, together with an examination of the role of language in reflecting and perpetuating cultural attitudes towards gender. Same as WSTC28H3.
Prerequisite: One full credit at the B-level in ANT, LIN, SOC or WST
Exclusion: JAL355H, WSTC28H3
Breadth Requirement: Social & Behavioural Sciences

LING30H3 Language Variation
Theory and methodology of variationist sociolinguistics. Topics include: Collection and analysis of natural speech data, linguistic and social factors that constrain language variation (e.g., phonological environment, word classes, style, age, social class, gender, ethnicity, social networks), stable variation vs. changes in progress, and acquisition of linguistic variation.
Prerequisite: LINC01H3 & LINC02H3
Exclusion: (LING250H3, LIN351H)
Breadth Requirement: Arts, Literature & Language

LING31H3 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 one full credit at the C-level in LIN & permission of the instructor.

LING32H3 Seminar in Sociolinguistic Methodologies
Teaches research methodologies for sociolinguists (interviews, corpus collection, surveys, ethnography, etc.) and helps students conduct individual research studies in real-life contexts.
Prerequisite: LINB202H3 & one sociolinguistics course at the C-level (e.g. LINC27W, LINC28H3 or LINC30H3) or permission of instructor.

PLIB25H3 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. Recommended for students in the Concurrent Teacher Education Program (French).
Prerequisite: LINC401H3 or (FREN444H or FREN445H) or alternative prerequisite with permission of the instructor.
Exclusion: (LING32H3)
Breadth Requirement: Natural Sciences

PLIC15H3 Speech Perception
An examination of the acoustics and perception of human speech. By looking at the acoustic properties of a variety of languages (including Tamil, Tagalog and First Nations languages), we will explore how people learn the peculiarities of their sound system and what this reveals about the nature of human speech perception.
Prerequisite: LINB041H3 & LINC091H3
Breadth Requirement: Social & Behavioural Sciences

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: LINB04H3 or LINB06H3 or LINB09H3
Exclusion: JLP315H
Breadth Requirement: Natural Sciences

PLIC354H3 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: LINB04H3 or LINB06H3 or LINB09H3
Exclusion: JLP374H
Breadth Requirement: Natural Sciences

PLIC959H3 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: At least one full credit in PLJ
Exclusion: LIN905H
Breadth Requirement: Quantitative Reasoning

PLD91H3

PLD329H3 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 Program Supervisor for psycholinguistics.
Prerequisite: At least one full credit at the C-level in PLJ & permission of the instructor.

PLIC34H3 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. Recommended for students in the Concurrent Teacher Education Program (French).
Prerequisite: LINA01H3 or [FREB144H3 & FREB145H3] & [PLIC24H3 or PLIB25H3 or alternative prerequisite with permission of the instructor]
Exclusion: LINC34H3, (PLIC34H3)
Breadth Requirement: Natural Sciences

PLIC44H3 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 or permission of the instructor
Breadth Requirement: Natural Sciences

PLIC55H3 Disorders of Speech and Language
Pathologies of language acquisition, comprehension, and production. Topics include anatomy and physiology, voice disorders, articulation disorders, cleft palate, aphasia, apraxia, dysarthria, language delay, language learning disabilities, developmental delay, and hearing and auditory processing disorders.
Prerequisite: LINB09H3 and [LINC24H3 or LINC55H3]
Exclusion: JLS474H
Breadth Requirement: Social & Behavioural Science

Management

Faculty List

J. 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
A. Saks, B.A. (Western), M.A.Sc. (Waterloo), Ph.D. (Toronto), Professor
A. Stark, B.A. (UBC), M.Sc. (London), M.A., Ph.D. (Harvard), Professor
J. Wei, B.Sc. (Harbin Inst. (China)), M.B.A. (York), Ph.D. (Toronto), Professor
P. Agarwal, B.A., M.B.A. (India), M.B.A., Ph.D. (Chicago), Associate Professor
M. Campolenti, B.Sc., M.A., Ph.D. (Toronto), Associate Professor
J. McCarthy, B.A., M.A., Ph.D. (Western), Associate Professor
D. Zweig, B.A., M.A.Sc., Ph.D. (Waterloo), Associate Professor
L. Cen, B.Sc. (Zhejiang), M.Sc. (Wichita), Ph.D. (HKUST), Assistant Professor
B. Connelly, B.A. (Ottawa), Ph.D. (Minnesota), Assistant Professor
E. Edling, M.Sc., Ph.D. (Tilburg University), Assistant Professor
K. Kim, B.A., M.B.A. (Korea), Ph.D. (Minnesota), Assistant Professor
S. D. Monteith, B.A. (Laurentian), M.A., Wilfrid Laurier, Ph.D. (Waterloo), Assistant Professor
J. Truong, B.S., M.B.A. (Oklahoma State), Ph.D. (Purdue), Assistant Professor
A. Xu, B.A. (Beijing), Ph.D. (Illinois), Assistant Professor
S.W. Ahmed, B.Com., M.A. (Stind), M.B.A. (Concordia), Senior Lecturer
C. Bovard, B.A. (Queen's), M.Sc. (Stirling), M.B.A. (Western), Senior Lecturer
L. F. Chen, M.Ed. (I. Penn), M.B.A. (U Toronto), Ph.D. (U Toronto), FCCLA, Senior Lecturer
L. S. Daga, B.A. (Waterloo), M.Ed. (Toronto), CA (CICA) CPA., Senior Lecturer
J. Healtech, B.A., M.A., Ph.D. (Western), Senior Lecturer
H. Laurence, B.A. (Amherst), M.A., Ph.D. (McGill), LLB (Osgoode), Senior Lecturer
G. Gram, Fun, B.A. (Toronto), M.B.A. (Laurentian), C.A., CMA, CGA, Senior Lecturer
P. Radhakrishnan, B.A. (Windsor), M.A., Ph.D. (Illinois), Senior Lecturer
A. Stavroula, B.A. (Toronto), M.B.A. (York, Canada), CMA, Senior Lecturer
D. Chau, B.Com. (York), M.B.A. (McMaster), Ph.D. (HKUST), CMA, Lecturer
T. Desai, B.Sc., M.B.A. (Punjabi), Ph.D. (Texas), Lecturer
J. Hepworth, B.A., M.A., Ph.D. (Western), Lecturer
H. Laurence, B.A. (Amherst), M.A., Ph.D. (McGill), LLB (Osgoode), Lecturer
V. Quan, B.A.Sc., M.A.Sc, Ph.D. (Toronto), Lecturer
R. Radhakrishnan, B.A. (Windsor), M.A., Ph.D. (Illinois), Lecturer

Chair: M. Krainsky

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 that 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 degree to students who complete one of the Specialist Programs in Management. We also offer a Co-operative version of the Management Program as well as a non-Co-op Certificate in Business.

Limited enrolment: Because of pressures of demand for places, it has been necessary to place enrolment limits on most Management courses including those given in the summer session, and on admission to Programs. Information on how to apply for admission to a Program and to limited enrolment courses will be available prior to the end of classes in April.

Prerequisites: Students are responsible for ensuring that they have the prerequisites for all Management courses. Students who knowingly or unknowingly register for courses for which they do not have the necessary prerequisites will be denied access to those courses. Students are reminded that an SFU (Standing deferred) in a course is considered as not meeting the prerequisite for the subsequent course.

Management Programs

The degree offered to management students (Co-op and Non-Co-op) is the B.B.A. Students qualify for the B.B.A. by completing one of the specialist programs in Management. All specialist programs have co-op options, and all are described below. B.B.A. students are not permitted to request either the Major Program in Economics for Management Studies or the Minor Program in Economics for Management Studies.

Admissions

Each year, 400 students will be admitted to the Specialist Programs in Management including Co-operative studies. There are three possible ways to be admitted to the Specialist Programs. Students interested in Co-op should also refer to additional application information in the following Co-op Programs section.

1. Directly from Secondary School

Some students will be admitted directly from high school, on the basis of academic performance. Applicants interested in the Specialist Programs in Management must have completed Grade 12 English and Grade 12 Calculus.

2. At the End of First Year

Most pre-program students will be considered for admission to the various B.B.A. programs at the end of the winter session of their first year. A second round of admissions takes place at the end of the following summer session. The minimum CGPA to guarantee admission to Non-Co-op B.B.A. is calculated annually. For this year, it will not be greater than 3.3. Applications to enter the Co-op B.B.A. (both from pre-program students and from B.B.A. students not in Co-op) will only be considered at the end of first year in the winter session. Subject POS among selection cycles only. Typically, the cut-off for admission to Co-op is higher than the cut-off for admission to Non-Co-op. Applicants for the Specialist Programs in Management must have completed (or be in the process of completing) MGT403H3, MGT404H3, ECON404H3, ECON406H3 & (MATA33H3 & MATA35H3) are strongly recommended, however (MATA30H3 & MATA35H3 (A361H3A371H3) may also be used to satisfy the calculus requirement) and at least 4.0 full credits. Decisions will be made only when all grades are received.

3. Late Admission

A limited number of places in the Non-Co-op B.B.A. will be available to students beyond the two application periods described in the previous section. Students may apply until they have completed up to 10.0 full credits, and admission will be on the basis of all grades received. Students who have completed more than 10.0 full credits will not be considered for admission to the Programs. Since the number of students accepted in this category is very limited, students who are denied admission after first year (in the periods at the end of the winter session and the end of the summer session in first year) are strongly advised to visit the Academic Advising & Career Centre to explore alternative program options.
Guidelines for Course Selection for First-Year Students in Management Programs leading to the B.B.A.

- **Non-Co-op Students directly admitted to the B.B.A.**
  MTGA03H3, MTGA04H3, ECM404H3, ECM406H3, MATA32H3, MATA33H3, MTGB05H3, MTGB06H3 are allowed.
- **Co-op Students directly admitted to the B.B.A.**
  All of the courses listed above for non-co-op students. Co-op students are required to take MTGB05H3 and MTGB06H3 in first year.
- **Students admitted directly into Management and Information Technology leading to the B.B.A.**
  MTGA03H3, MTGA04H3, ECM404H3, ECM406H3, CSGA06H3, CSGA08H3, and (MTA32H3 & MTA33H3) or (MATA32H3 & MATA33H3)

**Recommended Schedule of courses for Co-op Students In First Summer Session:**
ECMB02H3, ECMB06H3, ECMB11H3, MTGB03H3, MTGB27Y3 or MTGB25H3

**Grades Required to Remain in Programs**
In the first year, students will take the courses required for the Program of their choice (see the following paragraph). For information on the assessment of co-op students, see the Co-operative Programs section of this Calendar. In order to remain in the Program, students who are not in co-op must maintain a cumulative GPA of 2.0 or higher after having attempted at least 4 full credits and continue to maintain a GPA of 2.0 or higher after having attempted at least 8 full credits. Credits received at UTSC from sources external to 1 of T (transfer credits, AP, IB etc.) will be included in the count of attempted credits.

**Overall course load limit for B.B.A. students**
Students may take a maximum of 3.0 full credits in any one session. On occasion, B.B.A. students who have completed at least 10.0 full credits and who have a cumulative GPA of at least 3.5 may be permitted into an additional half-credit course. Requests to add an additional course must be made in writing to management-supervisor-studies@utsc.utoronto.ca. This must be done after the withdraw period has ended and before the last day to add courses for the session (see the Sessional Dates section of this Calendar). Students must provide an academic rationale for the request and include their name, student number, the course code and section requested.

**Please note** that 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.

**Guidelines for Course Selection for Students Admitted to Pre-Program and for Non-Program students who are interested in applying to Management**
Read the information sent with your offer of admission. Students must have at least 4.0 full credits from the University of Toronto to apply to Programs. For B.B.A. consideration, enrol in: MTGA03H3, MTGA04H3, ECM404H3, ECM406H3, MATA32H3, MATA33H3. Taking a course in the Humanities or Social Sciences in first year is recommended.

**Notice to Non-Program Students**
All B, C and D-level Management courses are restricted to students in Management Programs.

Management courses at the St. George campus are restricted and not available to U of T Scarborough students.

**Breadth & Depth Within the Degree**
Students who first completed courses as UTSC degree students in the 2010 Summer Session or in a subsequent session must fulfill breadth and depth requirements in order to graduate. (See the "Degrees" section of this Calendar for the full degree requirements.)

1. **Depth:** A minimum of 6.0 full credits must be taken at the C and/or D-Level. Of these, a minimum of 1.0 full credit must be at the D-Level. Students may use any C and D-level courses to fulfill this requirement, regardless of whether or not they are also used as a Program Requirement.

2. **Breadth:** A half-credit from each of the following categories must be taken. Both Program Requirements and Electives may be used to fulfill this requirement.
   a) Arts, Literature, and Language
   b) History, Philosophy, and Cultural Studies
   c) Social and Behavioural Sciences
   d) Natural Sciences
   e) Quantitative Reasoning

Management Students over the course of completing their program requirements will naturally fulfill categories 3 and 5. Students completing their required 1.0 credit from the Department of Humanities will often find that categories 1 and/or 2 will be naturally accounted for as well by their course selection.

**CO-OPERATIVE PROGRAMS IN MANAGEMENT**

*Program Director:* C. Arsenault (416-287-7112) E-mail: arsenault@utsc.utoronto.ca
*Supervisor of Studies:* S. Alnaimi E-mail: management-supervisor-studies@utsc.utoronto.ca

The Management Co-operative Program is an enriched program which combines academic studies with 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 admission, work placements and standing in the Program, please see the Co-operative Programs section of this Calendar.

Full Year/Trimester Programming
The Management Co-op 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 four years or until graduation requirements are met. The 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
Curriculum
Co-op students follow the course requirements of one of the specialist programs described later in this section. In addition, all co-op students must take MGT620HE prior to commencement of their second 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 Programs). Students are advised to consult regularly with the Program Supervisor 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.

Work Terms
To complete for a work term a student must be in good standing in the Program and must have completed:
- For the first work term: 7 full credits, including ECMA/AM4HE3, ECMA/AM4HE5, MGT/AT00HE3, MGT/AT00HE5, MGT/AT00HE7, MGT/AT00HE9, MGT/AT00HE11, the appropriate Mathematics courses and the Introduction to Management Co-op Work Term Preparation Course
- For the second work term: 6 full credits, including MGT/AC3HE1
- For the third work term: 11 full credits

SPECIALIST PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (BACHELOR OF BUSINESS ADMINISTRATION)
Supervisor: TBA. Email: economics-supervisor-studies@unfstore.on.ca
This program which has a co-op option is designed to provide students with a broad exposure to all the functional areas of Management as well as provide a solid grounding in Economics for B.B.A. students interested in further study in Economics.

Program Requirements
The Specialist Program in Economics for Management Studies requires the completion of the following minimum requirements as part of a twenty-credit degree (B.B.A.).

Note: A single course may only be used to fulfill one of the following requirements:

1. 8.5 full credits in Economics for Management Studies, including:
   - ECMA/AM4HE3, ECMA/AM4HE5, ECMA/AM4HE7, ECMA/AM4HE9, ECMA/AM4HE11, ECMA/AM4HE13, ECMA/AM4HE15, ECMA/AM4HE17, ECMA/AM4HE19, MGT/AT00HE3, MGT/AT00HE5, MGT/AT00HE7, MGT/AT00HE9, MGT/AT00HE11, the appropriate Mathematics courses and the Introduction to Management Co-op Work Term Preparation Course
   - For the first work term: 7 full credits, including ECMA/AM4HE3, ECMA/AM4HE5, MGT/AT00HE3, MGT/AT00HE5, MGT/AT00HE7, MGT/AT00HE9, MGT/AT00HE11, the appropriate Mathematics courses and the Introduction to Management Co-op Work Term Preparation Course
   - For the second work term: 6 full credits, including MGT/AC3HE1
   - For the third work term: 11 full credits

   2. At least 6.5 credits of courses emphasizing strategic management, chosen from:
   - ECMA/AM4HE3, ECMA/AM4HE5, MGT/AT00HE3, MGT/AT00HE5, MGT/AT00HE7, MGT/AT00HE9, MGT/AT00HE11, the appropriate Mathematics courses and the Introduction to Management Co-op Work Term Preparation Course
   - For the first work term: 7 full credits, including ECMA/AM4HE3, ECMA/AM4HE5, MGT/AT00HE3, MGT/AT00HE5, MGT/AT00HE7, MGT/AT00HE9, MGT/AT00HE11, the appropriate Mathematics courses and the Introduction to Management Co-op Work Term Preparation Course
   - For the second work term: 6 full credits, including MGT/AC3HE1
   - For the third work term: 11 full credits

   3. At least 1.5 full credits from courses within the Department of Humanities. Students admitted to UTSC prior to September 2008 may take MGT/AT00HE3 to complete their requirement in place of MGT/AT00HE5 and MGT/AT00HE7. Students admitted to UTSC as of September 2008 must take MGT/AT00HE3 to complete their program requirements.

   4. The remaining courses needed to complete the degree requirements of 20 credits can be chosen either within or outside the Department of Management in accordance with the student’s interest. In choosing courses, students should keep in mind the need to complete the general B.B.A. degree requirements referred to above.

   5. Students should be aware that the mathematics requirement implies that Grade 12 Calculus is a prerequisite for entry to this Program.

   Further, students who are considering graduate work in Economics should be aware that they should accumulate considerably more mathematics than the minimum required; they should consult the Supervisor of Studies in Economics for details.

SPECIALIST PROGRAM IN MANAGEMENT (BACHELOR OF BUSINESS ADMINISTRATION)
Supervisor: S. Ahmed. Email: management-supervisor-studies@unfstore.on.ca
This program which has a co-op option is designed to give students a broad exposure to all functional areas of Management as well as a solid grounding in Economics. Co-op students should see the section regarding work term requirements for specific details on courses required before each work term.

Program Requirements
The Program requires the completion of the following minimum requirements as part of a twenty-credit degree B.B.A.

**Note:** A single course may only be used to fulfill one of the following requirements:

1. MGA043H3, MGA045H3, MGB039H3, MGB045H3, MGB050H3, MGB059H3, [MGB089H3 or (MGT029H3)], [MGT029Y3 or (MGT029H3 & MGT029H1)], MGBT083H3, MGT099H3, MGT109H3, MGT149H3 & 1.0 full credit of D-level MGT or ECM courses.
2. [MATA03H2 & MATA05H2] strongly recommended or [MATA03H3 & MATA05H3 & MATA03H3 or MATA05H3] & 0.5
3. At least 0.5 credit of courses emphasizing strategic management, chosen from ECM403H3, MGT019H3, MGT031H3, MGT032H1, MGT033H3, MGT035H3, MGT038H1, MGT041H3, MGT042H3, MGT044H3, MGT045H3, MGT046H3, MGT048H3, MGT049H3, MGT050H3, MGT051H3, MGT053H3, MGT054H3, MGT056H3, MGT057H3 & MGT059H3.
4. ECM404H3, ECM406H3, ECM408H1, ECM409H3, ECM410H3, ECM411H3, ECM412H1, ECM413H3 & 1 full credit of C-level Economics for Management Studies courses (not including: ECM301H3, ECM302H3, ECM303H3).
5. In addition to the program-required 0.5 credit in Mathematics, all students in this program must complete at least 2.5 credits from outside MGT/ECM. The math courses will meet the breadth requirement in Quantitative Reasoning while the program-required Economics courses (ECM404H3 and ECM406H3) will meet the breadth requirement in Social and Behavioural Sciences. The remaining three breadth categories can be fulfilled by any of the 2.5 credits outside MGT/ECM.

**Note:** Students admitted to UTSC prior to September 2008 may take MGT019H3 to complete their requirements in place of MGT050H3 and MGT099H3. Student admitted to UTSC as of September 2008 must take MGBT083H3 and MGT099H3 to complete their program requirements.

The remaining courses needed to complete the degree requirement of 20 credits can be chosen either within or outside the Department of Management in accordance with the student's interest. In choosing courses, students should keep in mind the need to complete the general B.B.A. degree requirements referred to above.

**SPECIALIST PROGRAM IN MANAGEMENT AND ACCOUNTING (BACHELOR OF BUSINESS ADMINISTRATION)**

**Supervisor:** S. Ahmed  
**Email:** management-supervisor-studies@sass.mcmaster.ca

The Accounting Specialist program which has a Co-op option is designed for the individual who is interested in acquiring a concentrated core of accounting and related knowledge required to become a professional accountant. It provides a solid foundation to prepare students to become Chartered Accountants. Certified Management Accountants and Certified General Accountants after graduation. In addition, the Specialist program provides students the personal and professional attributes necessary to build a successful career in senior management.

The Accounting Specialist program encompasses topics such as introductory to advanced financial and managerial accounting, assurance, taxation, economics, and finance, along with a range of more advanced electives which covers topics and competencies that incorporate critical thinking and ethical decision making.

**Program Requirements**

The Program requires the completion of the following minimum requirements as part of a twenty-credit degree B.B.A. **Note:** A single course may only be used to fulfill one of the following requirements:

2. [MATA03H2 & MATA05H2] strongly recommended or [MATA03H3 & MATA05H3 & MATA03H3 or MATA05H3] & 0.5
3. At least 0.5 credit of courses emphasizing strategic management, chosen from ECM403H3, MGT019H3, MGT031H3, MGT032H1, MGT033H3, MGT035H3, MGT038H1, MGT041H3, MGT042H3, MGT044H3, MGT045H3, MGT046H3, MGT048H3, MGT049H3, MGT050H3, MGT051H3, MGT053H3, MGT054H3, MGT056H3, MGT057H3 & MGT059H3.
4. ECM404H3, ECM406H3, ECM408H1, ECM409H3, ECM410H3, ECM411H3, ECM412H1, ECM413H3 & 1 full credit of C-level Economics for Management Studies courses (not including: ECM301H3, ECM302H3, ECM303H3).
5. MGT036H3, MGT037H3, MGT039H3, MGT040H3, MGT041H3, MGT042H3, MGT044H3, MGT045H3, MGT058H3, MGT040H3.
7. In addition to the program-required 1.0 credit in Mathematics, all students in this program must complete at least 2.5 credits from outside MGT/ECM. The math courses will meet the breadth requirement in Quantitative Reasoning while the program-required Economics courses (ECM404H3 and ECM406H3) will meet the breadth requirement in Social and Behavioural Sciences. The remaining three breadth categories can be fulfilled by any of the 2.5 credits outside MGT/ECM.

**Note:** Students admitted to UTSC prior to September 2008 may take MGT019H3 to complete their requirements in place of MGT050H3 and MGT099H3. Student admitted to UTSC as of September 2008 must take MGBT083H3 and MGT099H3 to complete their program requirements.

The remaining courses needed to complete the degree requirement of 20 credits can be chosen either within or outside the Department of Management in accordance with the student's interest. In choosing courses, students should keep in mind the need to complete the general B.B.A. degree requirements referred to above.

**NOTES:**

- **Chartered Accountancy (CA) requirements:** For students interested in the CA designation, in addition to the specified courses in item 1 above, the following additional courses must be completed: MGT019H3, MGT020H3, MGT031H3, MGT036H3, [MGT039H3 or (MGT040H3)].
- **Certified Management Accountancy (CMA) requirements:** For students interested in the CMA designation, in addition to the specified courses in item 1 above, the following additional courses must be completed: MGT041H3, MGT075H3, MGT079H3, MGT080H3, MGT081H3 & MGT082H3.
Management

- Certified General Accountants (CGA) requirements: Students who wish to be eligible for a "block transfer" of credits into CGA PACE studies must also complete: MGT171H, MGT345H3 or [MGT160H3], MGT358H3 & MGT553H3.
- The advanced auditing courses (MGT531H5 & MGT628H3) are part of post-graduate CGA professional studies and students who take these courses as part of their degree studies should be aware that they will still be required to write CGA challenge exams.
- Other: Regardless of which professional accounting path students are interested in pursuing, they are strongly advised to refer to the web-sites of the three professional accounting organizations to be aware of their specified minimum grade requirements and any changes that may occur between updates of the description of this program in the UTSC Calendar.

SPECIALIST PROGRAM IN MANAGEMENT AND FINANCE (BACHELOR OF BUSINESS ADMINISTRATION)

Program Requirements

The Program requires the completion of the following minimum requirements as part of a twenty-credit degree B.B.A.: Note: A single course may only be used once to fulfill one of the following requirements:

2. [MATA13H2 & MATA31H3] strongly recommended or [MATA30H3 & MATA35H3 & MATH1A3H]
3. At least 0.5 credit of courses emphasizing strategic management, chosen from (ECMC43H3, MGT139H3, MGT213H3, MGT312H3, MGT331H3, MGT333H3, MGT341H3, MGT429H3, MGT545H3, MGT598H3, MGT608H3, MGMT541H3 or [MGT130H3])
4. ECM240H3, ECM260H3, ECM262H3, ECM266H3, ECM311H3, ECM312H3 & 1 full credit of C-level Economics for Management Studies courses (not including: ECM391H3, ECM392H3, ECM393H3)
5. MGT171H3 & MGT753H3
6. At least 2.0 full credits from: MGT301H3, MGT302H3, MGT303H3, MGT363H3, MGT371H3, MGT372H3, MGT373H3, ECMC480H3
7. In addition to the program-required 1.0 credit in Mathematics, all students in this program must complete at least 2.5 credits from outside MGT/ECM. The math courses will meet the breadth requirement in Quantitative Reasoning while the program-required Economics courses (ECMA40H3 and ECM210H3) will meet the breadth requirement in Social and Behavioral Sciences. The remaining three breadth categories can be fulfilled by any of the 2.5 credits outside MGT/ECM.

Note: Students admitted to UTSC prior to September 2008 may take MGT228H3 to complete their requirements in place of MGT284H3 and MGT384H3. Student admitted to UTSC as of September 2008 must take MGT890H3 and MGT392H3 to complete their program requirements.

The remaining courses needed to complete the degree requirements of 20 credits can be chosen either within or outside the Department of Management in accordance with the student's interest. In choosing courses, students should keep in mind the need to complete the general B.B.A. degree requirements referred to above.

SPECIALIST PROGRAM IN MANAGEMENT AND HUMAN RESOURCES (BACHELOR OF BUSINESS ADMINISTRATION)

Program Requirements

The Program requires the completion of the following minimum requirements as part of a twenty-credit degree B.B.A.: Note: A single course may only be used once to fulfill one of the following requirements:

2. [MATA13H2 & MATA31H3] strongly recommended or [MATA30H3 & MATA35H3 & MATH1A3H]
3. At least 0.5 credit of courses emphasizing strategic management, chosen from (ECMC43H3, MGT139H3, MGT213H3, MGT312H3, MGT331H3, MGT333H3, MGT341H3, MGT429H3, MGT545H3, MGT598H3, MGT608H3, MGMT541H3 or [MGT130H3])
4. ECM240H3, ECM260H3, ECM262H3, ECM266H3, ECM311H3, ECM312H3 & 1 full credit of C-level Economics for Management Studies courses (not including: ECM391H3, ECM392H3, ECM393H3)
5. MGT123H1, MGT153H1, MGT243H1, MGT253H1, MGT263H1, MGT273H1, MGT283H1
6. In addition to the program-required 1.0 credit in Mathematics, all students in this program must complete at least 2.5 credits from outside MGTECM. The math courses will meet the breadth requirement in Quantitative Reasoning while the program-required Economics courses (ECMA04H3 and ECMA06H3) will meet the breadth requirement in Social and Behavioural Sciences. The remaining three breadth categories can be fulfilled by any of the 2.5 credits outside MGTECM.

Note: Students admitted to UTSC prior to September 2008 may take MGT243H1 to complete their requirements in place of MGTB90H3 and MGTG90H3 to complete their program requirements.

The remaining courses needed to complete the degree requirements of 20 credits can be chosen either within or outside the Department of Management in accordance with the student's interest. In choosing courses, students should keep in mind the need to complete the general B.B.A. degree requirements referred to above.

SPECIALIST PROGRAM IN MANAGEMENT AND INFORMATION TECHNOLOGY (BACHELOR OF BUSINESS ADMINISTRATION)

Supervisor: S. Ahmed E-mail: management-supervisor-studies@utsc.utoronto.ca

This program which has a co-op option is designed to give students a broad exposure to all functional areas of Management as well as a solid grounding in Computer Science, Please see the section regarding work term requirements for specific details on courses required before each work term.

Program Requirements

The program requires the completion of the following minimum requirements as part of a twenty-credit degree B.B.A.:
1. MGT103H1, MGT216H3, ECMA04H3, ECMA06H3, CSCA08H3, CSCA09H3, CSCE10H3
2. [MATA23H1 & MATA33H1] or [MATA39H3 & MATA37H3]
4. MATH299H3 & MATH300H3
5. CSCC08H3, CSCC09H3, [CSCC06H3 or CSCC07H3], MGMT189H3, MGMT191H3
6. CSCD00H3 or MGMT291H3
7. 1.0 credits at the D-level in MGT, ECN or CSC courses.

Note: Students admitted to UTSC prior to September 2008 may take MGT243H1 to complete their requirements in place of MGTB90H3 and MGTG90H3. Student admitted to UTSC as of September 2008 must take MGTB90H3 and MGTG90H3 to complete their program requirements. The remaining courses needed to complete the degree requirements of 20 credits can be chosen either within or outside the Department of Management in accordance with the student's interest. In choosing courses, students should keep in mind the need to complete the general B.B.A. degree requirements referred to above.

SPECIALIST PROGRAM IN MANAGEMENT AND MARKETING (BACHELOR OF BUSINESS ADMINISTRATION)

Supervisor: S. Ahmed E-mail: management-supervisor-studies@utsc.utoronto.ca

The Specialist Program in Management and Marketing which has a Co-op option 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.

Program Requirements

The program requires the completion of the following minimum requirements as part of a twenty-credit degree B.B.A.: Note: A single course may only be used to fulfill one of the following requirements:
1. MGMT103H1, MGMT104H3, MGMT105H3, MGMT201H3, MGMT203H3, MGMT206H3, [MGMTB90H3 or (MGMT303H3), MGMT216H3 or (MGMT322H3 & MGMT329H3), MGMT290H3, MGMT299H3, MGMT297H3, MGMT241H3
2. [MATA23H1 & MATA33H1] strongly recommended or [MATA39H3 & MATA37H3]
3. At least 0.5 credit of courses emphasizing strategic management, chosen from: ECON316H3, MGTG191H3, MGMT211H3, MGMT220H3, MGMT230H3, MGMT231H3, MGMT310H3, MGMT386H3, MGMT390H3, MGMT410H3, MGMT420H3, MGMT430H3, MGMT491H3, MGMT506H3, MGMT516H3
4. ECMA04H3, ECMA06H3, ECON250H3, ECON251H3, ECON252H3 & 1 full credit of C-level Economics for Management Studies courses (not including ECON301H3, ECON302H3, ECON303H3)
5. MGMT216H3, MGMT217H3, MGMT218H3, MGMT219H3, MGMT220H3, MGMT221H3, MGMT222H3, MGMT223H3
6. MGMT301H3, MGMT302H3
7. In addition to the program required 1.0 credit in Mathematics, all students in this program must complete at least 2.5 credits from outside MGTECM. The math courses will meet the breadth requirement in Quantitative Reasoning while the program-required Economics courses (ECMA04H3 and ECMA06H3) will meet the breadth requirement in Social and Behavioural Sciences. The remaining three breadth categories can be fulfilled by any of the 2.5 credits outside MGTECM.

Note: Students admitted to UTSC prior to September 2008 may take MGT243H1 to complete their requirements in place of MGTB90H3 and MGTG90H3. Student admitted to UTSC as of September 2008 must take MGTB90H3 and MGTG90H3 to complete their program requirements.

The remaining courses needed to complete the degree requirements of 20 credits can be chosen either within or outside the
Department of Management in accordance with the student's interest. In choosing courses, students should keep in mind the need to complete the general B.B.A. degree requirements referred to above.

In addition to the above program requirements, we also offer equally interesting Marketing elective courses. Judgment and Decision Making [MGT200H3] & Marketing in the Information Age [MGT600H3].

SPECIALIST PROGRAM IN STRATEGIC MANAGEMENT (BACHELOR OF BUSINESS ADMINISTRATION)

Supervisor: S. Ahmed Email: management-supervisor-studies@utsc.utoronto.ca

This Program which has a co-op option is designed to give students a broad exposure to all functional areas of Management as well as a solid grounding in Strategic Management.

It covers the direction and coordination of private sector, public sector, or non-profit sector organizations. The specialist requires a grounding in strategic management while providing a variety of elective courses to appeal to students interested in any one of the three sectors as well as electives that appeal to all three.

Program Requirements

The Program requires the completion of the following minimum requirements as part of a twenty credit degree B.B.A.:

2. [MATA32H3 & MATA33H3] strongly recommended or [MATA32H3 & MATA31H3/A36H3/A37H3]
3. At least 0.5 credit of courses emphasizing strategic management, chosen from MGT221H3, MGT222H3, MGT223H3, MGT224H3, MGT225H3, MGT226H3, MGT227H3, MGT228H3, MGT229H3 & MGT230H3.
5. 1 full credit (2 courses) from MGT241H3, MGT242H3 or MGT243H3.
7. MGT239H3 & MGT240H3.
8. In addition to the program-required 1.0 credit in Mathematics, all students in this program must complete at least 2.5 credits from outside MGT/ECM. The math courses will meet the breadth requirement in Quantitative Reasoning while the program-required Economics courses (ECM246H3 and ECM247H3) will meet the breadth requirement in Social and Behavioural Sciences. The remaining three breadth categories can be fulfilled by any of the 2.5 credits outside MGT/ECM.

Note: Students admitted to UTSC prior to September 2008 may take MGT224H3 to complete their requirements in place of MGT209H3 and MGT290H3. Students admitted to UTSC as of September 2008 must take MGT209H3 and MGT290H3 to complete their program requirements. The remaining courses needed to complete the degree requirements of 20 credits can be chosen either within or outside the Department of Management in accordance with the student's interest. In choosing courses, students should keep in mind the need to complete the general B.B.A. degree requirements referred to above.

CERTIFICATE IN BUSINESS
Website: www.utsc.utoronto.ca/mgmt/business_certi.html

The Department of Management also offers a Certificate Program for non-degree students. (See the Degree section of this Calendar for details.) Non-degree students interested in this Certificate Program should visit the Department website.

MGT203H3 Introduction to Management I

This course serves as an introduction to the process of management, including planning, organizing and the role of management within the broader business community. This course should be taken before any other MGT courses.
Exclusion: [COM105H3, MGM101H3, RSM100Y]
Breadth Requirement: Social & Behavioural Sciences

MGT204H3 Introduction to Management II

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 MGT203H3.
Prerequisites: MGT203H3
Exclusion: MGM101H3, MGM102H3, RSM100Y
Breadth Requirement: Social & Behavioural Sciences

MGT208H3 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.
Prerequisites: [ECMA201H3 & ECMA202H3] or [ECMA211H3 & ECMA212H3] & MGT203H3
Exclusion: MGT223H3, MGT224H3, RSM222H3, RSM322H3, VPA133H3 Emission Limits: 60
Breadth Requirement: Social & Behavioural Sciences
MGTB4043 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. Enrollment is limited to students registered in programs requiring this course.
Prerequisite: MGTB303H & MGTB404H
Exclusion: MGTB252H, RSM252H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGTB504H Financial Accounting II
Together with MGTB604H, 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.
Prerequisite: MGTB303H & MGTB404H. Note: Students admitted into the Management Program directly from high school and students registered in programs requiring this course may take it in the same session as either MGTB303H or MGTB404H.
Exclusion: MGTB120H, MGTB201H, MGTB220H, RSM100Y, RSM220H, VPA1B3H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGTB604H Financial Accounting III
This course is a continuation of MGTB504H. Students are encouraged to take it immediately after completing MGTB504H. 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: MGTB504H
Exclusion: MGTB120H, MGTB201H, MGTB220H, RSM220H, VPA1B3H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGTB505H Principles of Finance
An introduction to basic concepts and analytical tools in financial management. Building on the fundamental concepts of time value of money, the course will examine stock and bond valuations and capital budgeting under uncertainty. Also covered are risk-return trade-off, financial planning and forecasting, and long-term financing decisions.
Prerequisite: [ECMB90Y3] or ECMB11H3 & MGTB053H
Exclusion: ACTB404H3, ACT240H, (MGTB031H3), (MGTB311Y3) or MGTB317H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGTB323H Managing People in Organizations
An introduction to micro-organizational behaviour theories from both conceptual and applied perspectives. Students will examine a variety of theories and concepts to help them develop an understanding of the behaviour of individuals in all types of organizational settings. Topics covered include: individual differences, motivation and job design, work attitudes, decision making, leadership.
Prerequisite: MGTB303H & MGTB404H
Exclusion: MGTB27Y3, MGTB262H, RSM268H, SY332H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGTB27Y3 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, organizational design, culture, and innovation, group dynamics and inter-group relations.
Prerequisite: MGTB303H & MGTB404H
Exclusion: MGTB262H, MGTB23H3, MGTB293H, SY332H, RSM268H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGTB829H Managing Groups and Organizations
An introduction to the practical and theoretical aspects of macro-organizational behaviour. Building on MGTB23H3, students will be introduced to theoretical and practical aspects of macro-organizational levels of behaviour that tackle management issues at group and organizational levels of analysis. Topics covered include: organizational design, culture, innovation, power and politics, group dynamics and organizational change.
Prerequisite: MGTB23H3
Exclusion: MGTB27Y3, MGTB262H, RSM268H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGTB804H Business Communication Skills
This course focuses on honing core skills for effective business communication. Students will attend lectures each week given by experts in the field and then practice written and oral skills in smaller laboratory groups. This course will cover topics such as persuasive communication, handling the media, and providing performance feedback.
Prerequisite: MGTB404H & MGTB404H
Exclusion: MGTB24H3
Breadth Requirement: Social & Behavioural Sciences

MGTB250H5H 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.
Prerequisite: MGTB404H
Exclusion: (MGTB250H3) Enrollment Limit: 40
Breadth Requirement: Social & Behavioural Sciences

MGTB090H 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: MGTB031H
Exclusion: MGT223H, RSM322H

Enrolment Limits: 60

Breadth Requirement: Social & Behavioural Sciences

MGT207H3 Intermediate Accounting I

Together with MGT208H3, this course examines financial reporting in Canada. Through case analysis and the technical material covered, students will build on their knowledge gained in MGT205H3, MGT206H3 and, to a lesser extent, MGT200H3.

Prerequisite: Completion of 8.0 full credits including MGT200H3 & MGT206H3

Exclusion: MGT222H, MGT232H, RSM221H, RSM320H

Enrolment Limits: 40

Breadth Requirement: Social & Behavioural Sciences

MGT208H3 Intermediate Accounting II

This course is a continuation of MGT207H3. Students will further develop their case writing and technical skills and professional judgment through the study of several complex topics. Topics include leases, bonds, pensions, future taxes and earnings per share. Students must complete MGT207H3 before attempting this course.

Prerequisite: MGT207H3

Exclusion: MGT222H, MGT232H, RSM221H, RSM320H

Enrolment Limits: 40

Breadth Requirement: Social & Behavioural Sciences

MGT209H3 Intermediate Finance

This course covers mainstream finance topics. Besides a deeper examination of certain topics already covered in MGT209H3, 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: MGT209H3 or MGT208H3

Exclusion: (MGT333Y), MGT337Y

Enrolment Limits: 60

Breadth Requirement: Social & Behavioural Sciences

MGT211H3 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: MGT200H3 & [MGT223H3 & MGT209H3] or [MGT227Y]

Exclusion: MGT231H, RSM227H

Enrolment Limits: 40

Breadth Requirement: Social & Behavioural Sciences

MGT212H3 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 approach, 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, audiovisual programs and guest speakers from the local advertising industry.

Prerequisite: MGT200H3 & MGT209H3

Exclusion: MGT222H, MGT232H, RSM320H

Enrolment Limits: 40

Breadth Requirement: Social & Behavioural Sciences

MGT213H3 Pricing Strategy

Pricing right is fundamental to a firm's profitability. This course focuses 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 products, value pricing, behavioral issues, and price segmentation.

Prerequisite: MGT304H3 & ECON223H

Enrolment Limits: 40

Breadth Requirement: Social & Behavioural Sciences

MGT214H3 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: MGT204H3

Enrolment Limits: 40

Breadth Requirement: Social & Behavioural Sciences

MGT215H3 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 ten full credits including MGT205H3 & MGT206H3 & MGT209H3.

Exclusion: MGT232H, RSM224H

Recommended Preparation: MGT209H3 is highly recommended.

Enrolment Limits: 40

Breadth Requirement: Social & Behavioural Sciences

MGT217H3 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 reorganizations, partnerships, trusts, and individual and corporate tax planning.

Prerequisite: MGT210H3

Exclusion: MGT240H, RSM244H

Enrolment Limits: 40

Breadth Requirement: Social & Behavioural Sciences

MGT219H3 New Ways of Work: Consulting, Contracting & Freelancing

With the changing nature of employment, students are increasingly likely to find careers involving a series of short-term contracts or project-related assignments. The successful manager of the future will not have "jobs", but portfolios of adaptable and transferable skills. The course examines what consultants do, and why organizations engage consultants.

Prerequisite: MGT204H3 & [MGT223H3 & MGT209H3] or [MGT227Y]

Enrolment Limits: 40

Breadth Requirement: Social & Behavioural Sciences
MGT206H3 Judgement and Decision Making
This course combines the elements of behavioral research as applied to consumers' decision making models and how this can be used to predict decisions within a marketing and consumer oriented environment. It also delves into psychology, economics, statistics, and other disciplines.
Prerequisite: MGT06H3
Enrollment Limit: 30
Breadth Requirement: Social & Behavioural Sciences

MGT215H3 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: MGT04H3
Enrollment Limit: 40
Breadth Requirement: Social & Behavioural Sciences

MGT222H3 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 workplace.
Prerequisite: [MGT233H3 & MGT829H3] or MGT2973
Exclusion: MGT469H, RSM469H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGT223H3 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: [MGT233H3 & MGT829H3] or MGT2973
Enrollment Limit: 40
Breadth Requirement: Social & Behavioural Sciences

MGT348H3 Managerial Skills
This course deals with the development of managerial skills. It provides opportunities for students to develop skills related to the conceptual knowledge addressed in earlier courses. The objective is to improve students' own personal management competencies in areas such as interpersonal relations, decision making/problem solving, motivating, leading, and teamwork.
Prerequisite: [MGT233H3 & MGT829H3] or MGT2973
Exclusion: MGT090H3, MGT90H3
Enrollment Limit: 40
Breadth Requirement: Social & Behavioural Sciences

MGT231H3 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 ten full credits including: MGT806H3 & MGT806H3
Exclusion: MGT93H3, RSM225H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGT328H3 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: MGT314H3
Exclusion: MGT94H1, RSM325H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGT332H3 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 behavior, required to produce a successful event.
Prerequisite: Completion of at least 10 full credits in the B.B.A. program
Enrollment Limit: 40
Breadth Requirement: Social & Behavioural Sciences

MGT347H3 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: MGT86H3 & MGT803H
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

MGT355H3 Narratives on Management and Organization
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: [MGT233H3 & MGT829H3] or MGT2973
Enrollment Limit: 35
Breadth Requirement: Arts, Literature & Language

MGT363H3 Management Communications
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.
Prerequisite: MGT233H3 or MGT2973
Enrollment Limit: 40
Breadth Requirement: Arts, Literature & Language
MGTC370H1 Introduction to Case Analysis Techniques
This course focuses on the theory and techniques of analyzing and setting 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: MGMTB01H3 & MGBT09H1 & MGBT23H3
Corequisite: MGBT04H3 & MGBT06H3
Enrollment Limits: 50
Breadth Requirement: Social & Behavioural Sciences

MGTC380H3 Entrepreneurship
This course focuses on the skills required and issues - personal, financial, sales, operational - entrepreneurs face as their smaller business grows from start-up to maturity. The course should interest those who wish to own, or seek careers with, an entrepreneurial business in either the "old" or "new" economies.
Prerequisite: MGBT03H3 & [MGBT23H3 & MGBT09H1] or MGBT27Y3
Exclusion: MGT49H3, RSM49H3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGTC390H3 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, financial and growth. This course provides a framework for the evaluation of the commercial potential of business ideas.
Prerequisite: MGBT04H3 & MGBT06H3 & MGBT09H3
Breadth Requirement: Social & Behavioural Sciences

MGTC410H3 Corporate Strategy
 Begins with an examination of the concept of business mission. Students are then challenged to develop the external and industry environment in which businesses compete, as well as identify sources of competitive advantage and value creation, and to understand and evaluate the strategies of active Canadian companies.
Prerequisite: [ECMB03H3 or MGBT27Y3] & (ECMB02H3 or ECM06H3)
Exclusion: MGT49H3, RSM49H3, VAPA13H3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGTC420H3 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 case studies and simulations to develop management skills in a public sector setting.
Prerequisite: [MGBT23H3 or MGBT27Y3] or [POLIS10H3 & POLB210H]
Enrollment Limits: 35
Breadth Requirement: Social & Behavioural Sciences

MGTC440H3 International Business Management
Prerequisite: [MGBT23H3 & MGBT29H3] or [MGBT27Y3]
Exclusion: MGT49H3, RSM49H3
Enrollment Limits: 60
Breadth Requirement: Social &Behavioural Sciences

MGTC450H3 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, dealer, maker 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: MGT3A03H3 & MGT3A04H3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGTC460H3 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: ECOM02H3 & ECOM06H3
Exclusion: ECOM391H3, ECOS280Y, ECO354H
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGTC520H3 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 introduces traditional and emerging procedures for resolving disputes. To gain practical experience, students will participate in exercises which simulate negotiations.
Prerequisite: [MGBT23H3 & MGBT29H3] or MGBT27Y3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGTC530H3 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, grievances, 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 ten full credits including [ECMA01H3 & ECMA03H3] or [ECMA04H3 & ECMA06H3] & [MGT3A03H3 & MGT3A04H3]
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGTC550H3 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: MGTB30H3
Enrollment Limits: 20
Breadth Requirement: Social & Behavioural Sciences

MGTC6H3 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: MGBTB3H3
Enrollment Limits: 20
Breadth Requirement: Social & Behavioural Sciences

MGTC59H3 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: MGT1A0H3 & MGA1A0H3
Exclusion: PHIL10G3, Enrolment Limits: 60
Breadth Requirement: History, Philosophy & Cultural Studies

MGTC76H3 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: MGTB30H3 & (MGT1C0H3)
Exclusion: MG(TD07G3, Enrolment Limits: 90
Breadth Requirement: Social & Behavioural Sciences

MGTC7H3 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.

Prerequisite: [ECMB1H3 or (ECMB09Y5)] & [MGTB30H3 or (MGT1C0H3)]
Corequisite: MGT1C0H3
Exclusion: MG(T34H3, Enrolment Limits: 50
Breadth Requirement: Social & Behavioural Sciences

MGTC74H3 Analysis for Decision-Making
This course develops understanding and practical skills of applying quantitative analysis for making better management decisions. Studies methodologies include linear and integer programming; multi-criteria optimization; waiting line models; decision analysis. Methodologies are practiced in a broad range of typical business problems drawn from different areas of management.

Prerequisite: [MATA2H3 & MATA33H3] or [MATA27H3] & ECMB1H3 & (ECMB11H3 & ECMB12H3) or (ECMB09Y5)
Enrolment Limits: 60
Breadth Requirement: Quantitative Reasoning

MGTC75H3 Operations Management: A Mathematical Approach
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, aggregate planning, materials requirements planning, production scheduling.

Prerequisite: MGTC74H3
Exclusion: MG(T37G4, Enrolment Limits: 60
Breadth Requirement: Quantitative Reasoning

MGTC6H3 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: MGT1C0H3
Exclusion: (RMG13H3, (MG(T43H6)
Enrolment Limits: 50
Breadth Requirement: Social & Behavioural Sciences

MGTC77H3 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: MGT1C0H3 Enrolment Limits: 40
Breadth Requirement: Social & Behavioural Sciences

MGTC96H3 Business Leadership 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 problems solving. These skills are important for leadership and will enable students to behave more effectively in their working and personal lives.

Prerequisite: MGT23H3 & MGTB90H3
Exclusion: MG(T24H3 Enrolment Limits: 40
Breadth Requirement: Social & Behavioural Sciences

MGTD04H3 Marketing in the Information Age
Management

200

Prerequisite: MGTB04H7
Enrolment Limits: 40
Breadth Requirement: Social & Behavioural Sciences

MGTDB0H3 Market Research
A decision oriented course, which introduces students to the market research process. 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. Interaction involves lectures and projects including computer analysis.
Prerequisite: [ECMB11H3 & ECMB12H3] or (ECMB09Y3) & MGTB04H3
Exclusion: MGT453H, RM0452H
Enrolment Limits: 40
Breadth Requirement: Social & Behavioural Sciences

MGTDA0H3 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: MGTAA0H3 & MGTAA0H4 & MGTB04H3
Enrolment Limits: 30
Breadth Requirement: Social & Behavioural Sciences

MGTDA4H3 Leadership and Management in the 21st Century
The information age, intense global competition and an increasingly diverse workforce have ushered in the need for a new type of leader. This seminar will draw on empirical research and lessons learned from exceptional leaders to guide students in becoming the kind of leaders that will thrive in the new millennium.
Prerequisite: [MGTB2H3 & MGTDB2H3] or MGTB27Y3 & [MGT24H3 or MGT30H3]
Enrolment Limits: 30
Breadth Requirement: Social & Behavioural Sciences

MGTDB0H3 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 full credits
Enrolment Limits: 30
Breadth Requirement: Social & Behavioural Sciences

MGTDA4H3 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: MGTDA2H3
Enrolment Limits: 30
Breadth Requirement: Social & Behavioural Sciences

MGTDB0H3 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 interview in making selection decisions.
Prerequisite: MGTDA2H3
Enrolment Limits: 40
Breadth Requirement: Social & Behavioural Sciences

MGTDB0H3 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, and off-the-job training methods, the transfer of training, and training evaluation.
Prerequisite: MGTDA2H3
Enrolment Limits: 40
Breadth Requirement: Social & Behavioural Sciences

MGTDA0H3 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: MGTDA2H3
Enrolment Limits: 40
Breadth Requirement: Social & Behavioural Sciences

MGTDB0H3 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: MGTDA2H3
Enrolment Limits: 40
Breadth Requirement: Social & Behavioural Sciences

MGTDB0H3 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, analyse and interpret marketing data.
Prerequisite: MGTB04H3, (ECMB09Y3) or ECMB11H3
(Qualitative Methods in Economics II, STAT227H1)
Exclusion: MGT455
Enrolment Limits: 30
Breadth Requirement: Quantitative Reasoning
MGT449H Knowledge Management
The course considers skills for managing knowledge assets and intellectual capital: fostering knowledge creation, representing and transferring knowledge and experience, building knowledge networks and communities of practice, managing knowledge assets for a competitive advantage and using information technology to support knowledge management.
Prerequisite: Completion of at least 10 full credits in the B.B.A. program Enrolment Limits: 30
Breadth Requirement: Social & Behavioural Sciences

MGT453H 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: MGT310H
Recommended Preparation: 9.5 full credits in addition to the prerequisite.
Breadth Requirement: Social & Behavioural Sciences

MGT474H 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 will be an opportunity to integrate previous training through analyses and presentations.
Prerequisite: Completion of at least eleven full credits with one full credit (2 courses) from MGT411H, MGT426H or MGT449H
Enrolment Limits: 20
Breadth Requirement: Social & Behavioural Sciences

MGT506H Advanced Financial Accounting
An in-depth study of advanced financial accounting topics: long-term inter-corporate investments; 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: MGT407H & MGT408H
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGT545H 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: MGT403H & [MGT431H & MGT329F] or MGT377Y
Exclusion: MGT402H, RMS522H, MGT428H
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGT555H 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: MGT407H & MGT408H
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGT569H Advanced Accounting Case Analysis
This capstone case analysis course stresses the critical thinking skills required of Management program graduates. Due to its integrative nature, with emphasis on current accounting issues, the course is primarily directed towards accounting students. Cases will strategically include the specific competency areas outlined in the CICSA CA Candidate Competency Map.
Prerequisite: MGT407H & MGT408H
Enrolment Limits: 40

MGT601H 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: MGT407H
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGT603H 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: MGT601H
Enrolment Limits: 80
Breadth Requirement: Social & Behavioural Sciences

MGT662H Auditing in a Computer Environment
An examination of the problems related to auditing computer system generated financial data, including consideration of risks and exposure, evaluation of controls and audit strategy development. Attention will also be given to computer-assisted audit techniques.
Prerequisite: MGT603H
Enrolment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

MGT727H Advanced Financial Management
This course reinforces and expands upon the topics covered in MGT609H (MGT407H and MGT408H). 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.
Mathematics

Faculty List
E.W. Ellers, Ph.D. (Hamburg), Professor Emeritus
E. Mendelsohn, B.Sc., M.Sc. (Montreal), Ph.D. (McGill), Professor Emeritus
R.W. Sharpe, M.Sc., Ph.D. (Yale), Professor Emeritus
J. Friedlander, M.A. (Waterloo), Ph.D. (Penn. State), F.R.S.C., University Professor
R.-O. Buchweitz, Ph.D. (Hannover), Professor
M. Gellert, Ph.D. (Tsukuba), Professor
L.C. Jeffrey, A.B. (Princeton), M.A. (Cambridge), D. Phil. (Oxford), Professor
D. Seli, B.Sc., M.Sc., Ph.D. (Princeton), Professor
J. Scherk, D.Phil. (Oxford), Associate Professor
B. Ving, Ph.D. (Berkeley), Associate Professor
G. Peters, Ph.D. (Berkeley), Assistant Professor
R. Zengi, Ph.D. (Budapest), Assistant Professor
R. Young, B.A. (Simon's Rock), M.Sc., Ph.D. (Chicago), Assistant Professor
N. Cherdeko, M.Sc. (Kharov), Ph.D. (Moscow), Senior Lecturer
S. Chretian, M.Sc. (Toronto), Senior Lecturer
R. Guitend, Ph.D. (Queens), Senior Lecturer
X. Jiang, B.Sc., M.Sc., Ph.D. (Shanghai), Senior Lecturer
E. Moore, M.A. (Memorial), Ph.D. (Toronto), Senior Lecturer
Z. Shahabi, B.Sc. (Sharif), M.Sc., Ph.D. (Toronto), Lecturer

Associate Chair: L.C. Jeffrey (416-383-7265)

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 was 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 for quantum mechanics. Similarly, graph theory, combinatorics and number theory play a major role in computer science.

The Specialist and Major Programs in Mathematics and the Specialist Program in Mathematics and its Applications are eligible for inclusion in the Co-operative Program in Physical Sciences and in the Concurrent Teacher Education Program (CTEP). Please consult the Physical Sciences section, the Co-operative Programs section and the Concurrent Teacher Education section of this Calendar for further information. The Supervisor of Studies for the co-operative programs is S. Chrysostomou (chrysostomou@atm.utoronto.ca).

Science Engagement Courses

For science experiential learning through community outreach, classroom in-reach and team research, please see the Science Engagement section of this Calendar.

SPECIALIST PROGRAM IN MATHEMATICS (SCIENCE)

Supervisor of Studies: E. Moore (416-287-7267) Email: emoore@atm.utoronto.ca

The Specialist Program in Mathematics is designed to give students a thorough grounding in the main areas of Mathematics, together with an understanding of the close relationship between Mathematics and other Sciences. It provides an excellent education for students who may decide to pursue a career in research, or who wish to go on to careers in non-mathematical fields.

Writing Requirement: Students are required to take a course from the following list of courses by the end of their second year.


Program Requirements

1. (3.0 full credits):
   - CSCA44H3 Introduction to Computer Science
   - MATA31H3 Linear Algebra I
   - MATA31H3 Calculus I for Mathematical Sciences
   - MATA31H3 Calculus II for Mathematical Sciences
   - PHIA10H3 Introduction to Physics IA
   - PHIA21H3 Introduction to Physics IA

2. (2.5 credits):
   - [CSCB07H3 Software Design or CSCB50H3 Introduction to the Theory of Computation]
   - MATH240H3 Linear Algebra II
   - MATH410H3 Techniques of the Calculus of Several Variables I
   - MATH420H3 Techniques of the Calculus of Several Variables II
   - MATH430H3 Introduction to Analysis

3. (1.5 credits):
   - MATH440H3 Differential Equations I
   - STAB32H3 An Introduction to Probability
   - STAB37H3 An Introduction to Statistics

4. (1.5 credits):
   - MATC01H3 Groups and Symmetry
   - MATD01H3 Fields and Groups
   - [MATC15H3 Introduction to Number Theory or MATD02H3 Classical Plane Geometry and their Transformations]

5. (1.0 credit):
   - MATC43H3 Complex Variables
   - MATC46H3 Differential Equations II

6. (1.0 credit): Two of:
   - MATH610H3 Linear Programming and Optimization
   - MATH27H3 Introduction to Topology
   - MATH35H3 Chaos, Fractals and Dynamics
   - MATH37H3 (MATC38H3) Introduction to Real Analysis
   - MATH40H3 Topics in Mathematics
   - MATD11H3 Topics in Mathematics
   - MATD12H3 Topics in Mathematics
Recommended Writing Course: Students are urged to take a course from the following list of courses by the end of their second year.


Program Requirements
This program requires eight full credits.

1. Core Courses:
   [FSCA40H3 Introduction to Computer Science or PSCB57H3 Introduction to Scientific Computing or MATA23H3 Linear Algebra I or MATA36H3 Calculus I for Biological and Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences] and MATA38H3 Calculus I for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences.) The sequence MATA37H3 and MATA38H3 is recommended. MATA31H3 is the pre-requisite for MATA37H3.
   MATB24H3 Linear Algebra II
   MATB41H3 Calculus of Several Variables I
   MATB42H3 Calculus of Several Variables II
   STAB02H3 Introduction to Probability
   MATC01H3 Groups and Symmetry or MATC15H3 Introduction to Number Theory.

2. Analysis: 1.5 credits from:
   MATB34H3, MATB44H3, MATC27H3, MATC46H3, MATC52H3, MATC37H3, MATC34H3, MATD04H3

3. Algebra and Geometry: 1.0 credit from
   MATB61H3, MATC01H3, MATC09H3, MATC15H3, MATC22H3, MATC44H3, MATC36H3, MATD01H3, MATD02H3

4. Applications: 1.0 credit from
   CSC C-level, CSC D-level, MATC16H3, MATC24H3, MATC44H3, MATC52H3, MATC62H3, MATC96H3, MATD61H3, STAB57H3, any STA C-level or D-level course, any STA-300, STA-400 level course on the E. George campus

SPECIALIST PROGRAM IN MATHEMATICS AND ITS APPLICATIONS (SCIENCE)
Supervisor of Studies: E. Moore (416-287-7267) Email: emoore@stc.utoronto.ca
The Specialist program in Mathematics and its Applications is recommended to students with strong interests in mathematics and with career goals in areas such as teaching, computer science, the physical sciences and statistics. The program is flexible; there is a core of courses in mathematics and related disciplines, but you can choose among several areas of concentration.

Writing Requirement: Students are required to take a course from the following list of courses by the end of their second year.


Program Requirements
In selecting courses, students must ensure that they include 4.0 credits at the C- or D-level of which 1.0 must be at the D-level.
Core for all program streams:

1. (2.0 full credits):
   - [CSCA448H1 Introduction to Computer Science or PSCB57H3 Introduction to Scientific Computing] (if PSCB57H3 is selected it should be taken in second year)*
   - MATATA2H1 Linear Algebra I
   - MATATA3H1 Calculus I for Biological and Physical Sciences or MATATA3H1 Calculus I for Mathematical Sciences) and MATATA3H1 Calculus I for Physical Sciences or MATATA3H1 Calculus II for Mathematical Sciences. The sequence MATATA3H1 and MATATA3H1 is recommended. MATATA3H1 is the pre-requisite for MATATA3H3.
   - MATATB2H1 Linear Algebra II
   - MATATB4H1 Techniques of the Calculus of Several Variables I
   - MATATB4H1 Techniques of the Calculus of Several Variables II
   - MATATB4H1 Introduction to Analysis
   - MATATB4H1 Differential Equations I
   - 3. (1.0 credit):
     - STABS5H3 An Introduction to Probability**
     - STABS5H3 An Introduction to Statistics**
   - 4. (0.5 credit):
     - MATAC0H1 Groups and Symmetry
   - 5. (0.5 credit):
     - MATAC4H1 Complex Variables

   * PSCB57H3 is required for the Computational Physical Sciences stream
   ** STABS5H3 and STABS5H3 must be taken in second year for the Statistics stream

AREAS OF CONCENTRATION:

Teaching Stream:
Students following this stream require a total of 13.0 credits.

1. (2.0 full credits):
   - MATATB1H1 Introduction to Number Theory
   - MATATB3H1 Fields and Groups
   - MATATB2H1 Classical Plane Geometries and their Transformations
   - MATATC2H1 Graph Theory and Algorithms for its Applications or MATATC4H1 Introduction to Combinatorics

2. (1.5 credits): Three of:
   - MATATC4H1 Linear Programming and Optimization
   - MATATC9H1 Introduction to Mathematical Logic
   - MATATC4H1 Coding Theory and Cryptography
   - MATATC3H1 Chaos, Fractals and Dynamics
   - MATATC7H1 (MATATC8H1) Introduction to Real Analysis
   - MATATC4H1 Differential Equations II
   - MATATC4H1 Differential Geometry
   - MATATC6H1 Beginnings of Mathematics
   - MATATB4H1 Complex Variables II

3. (2.0 full credits):
   - MATATC2H1 Mathematics for Teachers
   - Three C- or D-level CSC, MAT or STA half-credit courses

4. (0.5 credit):
   - [PSCD02H1 Current Questions in Mathematics and Science or CSCI03H1 Social Impact of Information Technology]

Statistics Stream:
Students following this stream require a total of 13.0 credits.

1. (2.5 credits):
   - MATATC4H1 Linear Programming and Optimization
   - MATATC4H1 Differential Equations II
   - MATATC0H1 Fields and Groups
MAT205H3 Classical Plane Geometries and their Transformations
MAT208H3 Regression Analysis

2. (1.0 credit): Two of:
MAT255H3 Chaos, Fractals and Dynamics
MAT375H3 (MAT375H3) Introduction to Real Analysis
MAT359H3 An Introduction to Mathematical Biology
MAT345H3 Complex Analysis II

3. 2.0 credits from ACTB47H3, C-level & D-level STA courses and 300- & 400-level STA courses on the St. George campus.

4. (0.5 credit):
[PSCD02H3 Current Questions in Mathematics and Science or CISC30H3 Social Impact of Information Technology]

Computational Physical Sciences Stream:
Students following this stream require a total of 14.0 credits.

1. (3.0 full credits):
ASTA01H3 Introduction to Astronomy and Astrophysics I: The Sun and Planets
ASTA02H3 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
CSC258H3 Numerical Algebra and Optimization
CSC258H3 Numerical Approximation, Integration and Ordinary Differential Equations
MAT258H3 Linear Programming and Optimization
MAT258H3 Chaos, Fractals and Dynamics
MAT246H3 Introduction to Combinatorics
MAT246H3 Differential Equations II
PHYA10H3 Introduction to Physics I
PHYA21H3 Introduction to Physics II

2. (1.5 credits): Three of:
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
ASTC22H3 Astrophysics of Planetary Systems
PHYB54H3 Mechanics: From Oscillations to Chaos
PHYB54H3 Introduction to Quantum Physics
(PHYC24H3) Quantum Physics I

3. (0.5 credit): One of:
CISC30H3 Computer Graphics
MATD34H3 Complex Variables II
MATD44H3 Readings in Mathematics
MATD55H3 Readings in Mathematics
PSCD02H3 Current Questions in Mathematics and Science
CISC30H3 Social Impact of Information Technology

Computer Science Stream:
See Joint Mathematics stream in the Computer Science Specialist Program.

Design Your Own Stream:
Students following this stream require a total of 13.0 credits.

1. (6.0 full credits): 12 half-credit courses chosen with the approval of the program supervisor for Mathematics and its Applications.

2. (0.5 credit):
[PSCD02H3 Current Questions in Mathematics and Science or CISC30H3 Social Impact of Information Technology]

SPECIALIST PROGRAM IN QUANTITATIVE ANALYSIS (SCIENCE)
See the Statistics section of this Calendar for program requirements.

SPECIALIST PROGRAM IN NATURAL SCIENCES (SCIENCE)
See the Physical Sciences section of this Calendar for program requirements.

MAT202H3 The Magic of Numbers
A selection from the following topics: the number sense (transcendence of numbers); numerical notation in different cultures; what is a number; Zeno’s paradox; divisibility, the
Mathematics

MAT2A3H Calculus for Management II
This course will introduce the students to multivariable calculus and linear algebra. Topics will include: 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: MAT2A1H
Exclusion: (MAT2A1H), (MAT2A2H), MAT2A3H, MAT2A5H, MAT2A7H, MAT2A9H, MAT3A1H, MAT3A3H, MAT3A5H, MAT3A7H, MAT3A9H, MAT4A1H, MAT4A3H, MAT4A5H, MAT4A7H, MAT4A9H, MAT5A1H, MAT5A3H, MAT5A5H, MAT5A7H, MAT5A9H, JMB1I07Y
Breadth Requirement: Quantitative Reasoning

MAT2A3H Linear Algebra I
Systems of linear equations, matrices, Gaussian elimination; basis, dimension, dot products, geometry in R^n; linear transformations; determinants, Cramer's rule; eigenvalues and eigenvectors, diagonalization.
Prerequisite: Grade 12 Calculus and Vectors or (Grade 12 Advanced Functions and Introductory Calculus & Geometry and Discrete Mathematics) Exclusion: MAT221H
Breadth Requirement: Quantitative Reasoning

MAT2A3H Calculus for Biological and 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, techniques of integration.
Prerequisite: Grade 12 Calculus and Vectors Exclusion: (MAT2A3H), (MAT2A4H), MAT2A5H, MAT2A6H, MAT2A7H, MAT2A8H, MAT2A9H, MAT3A1H, MAT3A3H, MAT3A5H, MAT3A7H, MAT3A9H, JMB1I07Y
Breadth Requirement: Quantitative Reasoning

MAT2A3H Calculus for Mathematical Sciences
A theoretical course in calculus emphasizing proofs and techniques, as well as the intuition behind them. Asks the questions: What is a derivative? What is an integral? and the basic properties of real numbers. Functions, including transcendental. Limits and continuity.
Prerequisite: Grade 12 Calculus and Vectors Exclusion: (MAT2A3H), (MAT2A4H), MAT2A5H, MAT2A6H, MAT2A7H, MAT2A8H, MAT2A9H, MAT3A1H, MAT3A3H, MAT3A5H, MAT3A7H, MAT3A9H, JMB1I07Y
Breadth Requirement: Quantitative Reasoning

MAT2A3H Calculus for Management I
This is a calculus course with most examples and applications of an economic nature. Topics to be covered: linear programming (geometric), 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: (MAT2A3H), (MAT2A4H), MAT2A5H, MAT2A6H, MAT2A7H, MAT2A8H, MAT2A9H, MAT3A1H, MAT3A3H, MAT3A5H, MAT3A7H, MAT3A9H, JMB1I07Y
Breadth Requirement: Quantitative Reasoning

MAT2A3H Calculus for Management II
This course will introduce the students to multivariable calculus and linear algebra. Topics will include: 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: MAT2A1H
Exclusion: (MAT2A1H), (MAT2A2H), MAT2A3H, MAT2A5H, MAT2A7H, MAT2A9H, MAT3A1H, MAT3A3H, MAT3A5H, MAT3A7H, MAT3A9H, MAT4A1H, MAT4A3H, MAT4A5H, MAT4A7H, MAT4A9H, MAT5A1H, MAT5A3H, MAT5A5H, MAT5A7H, MAT5A9H, JMB1I07Y
Breadth Requirement: Quantitative Reasoning

MAT2A3H Calculus 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: extreme, growth rates, diffusion rates; differential equations; population dynamics; vectors and matrices in 2 and 3 dimensions; genetics applications.
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.
Prerequisite: MAT2A1H or MAT2A3H
Breadth Requirement: Quantitative Reasoning

MAT2A3H Calculus for Physical Sciences
This course is intended to prepare students for the physical sciences. Topics to be covered include: Newton's method, approximation of functions by Taylor polynomials, numerical methods of integration, complex numbers, sequences, series, Taylor series, differential equations.
Prerequisite: MAT2A1H or MAT2A3H
Exclusion: (MAT2A1H), (MAT2A2H), MAT2A3H, MAT2A5H, MAT2A7H, MAT2A9H, MAT3A1H, MAT3A3H, MAT3A5H, MAT3A7H, MAT3A9H, MAT4A1H, MAT4A3H, MAT4A5H, MAT4A7H, MAT4A9H, MAT5A1H, MAT5A3H, MAT5A5H, MAT5A7H, MAT5A9H, JMB1I07Y
Breadth Requirement: Quantitative Reasoning

MAT2A3H Calculus for Mathematical Sciences
A continuation of MAT2A1H, emphasizing proofs and techniques, as well as the intuition behind them. Transcendental functions revisited. Techniques and applications of integration, Taylor polynomials and remainder term. Sequences and series. Uniform convergence and power series.
Prerequisite: MAT2A1H
Exclusion: (MAT2A1H), (MAT2A2H), MAT2A3H, MAT2A5H, MAT2A7H, MAT2A9H, MAT3A1H, MAT3A3H, MAT3A5H, MAT3A7H, MAT3A9H, MAT4A1H, MAT4A3H, MAT4A5H, MAT4A7H, MAT4A9H, MAT5A1H, MAT5A3H, MAT5A5H, MAT5A7H, MAT5A9H, JMB1I07Y
Breadth Requirement: Quantitative Reasoning

MAT2B1H 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: MAT223H1 or MAT223H5
Exclusion: MAT224H1
Breadth Requirement: Quantitative Reasoning

MATB4H3 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: [MAT223H3 or MAT223H5] & [MAT363H3 or MAT371H3] or MAT137Y or MAT137Y1
Exclusion: MAT223H5, MAT235Y, MAT237Y, MAT257Y
Breadth Requirement: Quantitative Reasoning

MATB41H3 Techniques of the Calculus of Several Variables II

Fourier series. Vector fields in \( \mathbb{R}^n \). Divergence and curl, curves, parametric representation of curves, path and line integrals, surfaces, parametric representations of surfaces, surface integrals. Green's, Gauss's, and Stokes theorems will also be covered. An introduction to differential forms, total derivative.

Prerequisite: MATB41H3
Exclusion: MAT235Y, MAT237Y, MAT257Y, MAT348H1
Breadth Requirement: 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: MAT373H1 or MAT371H7 & MATB41H3
Corequisite: MATB42H3 Exclusion: MAT240Y
Breadth Requirement: 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; differential equations.

Prerequisite: [MAT363H3 or MAT371H3] & MAT223H5
Corequisite: MATB41H3
Exclusion: MAT244H1, MAT267H1
Breadth Requirement: Quantitative Reasoning

MATB41H3 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: MAT231H3
Corequisite: MATB41H3
Exclusion: APM286H1
Breadth Requirement: Quantitative Reasoning

MATC01H3 Groups and Symmetry


Prerequisite: MAT373H1 & [MATB241H3 or MAT224H3]
Exclusion: MAT391H1, MAT347Y
Breadth Requirement: Quantitative Reasoning

MATC08H3 Introduction to Mathematical Logic


Prerequisite: MATB241H3 & [MATB41H3 or CSC316H3]
Exclusion: MAT391H, CSC438H
Breadth Requirement: 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: [MATA16H3 or MATA37H3] & MATB243H1
Exclusion: MAT315H1
Breadth Requirement: Quantitative Reasoning

MATC16H2 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: MATB241H3 & STATB323H
Corequisite: MATC151H recommended
Breadth Requirement: Quantitative Reasoning

MATC27H3 Introduction to Topology


Prerequisite: MATB243H3 & MATB43H3
Exclusion: MAT372H1
Breadth Requirement: Quantitative Reasoning

MATC21H3 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: [MATB243H3 or CSC316H3] & at least one other B-level course in Mathematics or Computer Science
Breadth Requirement: 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: MATB44H3
Exclusion: MAT334H
Breadth Requirement: Quantitative Reasoning

MATC35H3 Chaos, Fractals and Dynamics
Topics covered include: metric spaces, dynamics on the real line, fixed points, periodic points, attractors, repellors, Sharkovsky's theorem parametrized families of functions and bifurcations, period doubling, dynamics of the logistic map, symbolic dynamics, chaos, topological equivalence of the logistic map and the shift map, Newton's method; dynamics on the complex line, iterations of rational functions, Julia sets, Mandelbrot set.
Prerequisite: MATB44H3
Exclusion: MAT139H
Breadth Requirement: 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: MATB44H3
Exclusion: MAT337H, (MATC38H3)
Breadth Requirement: 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: MATB44H3 Exclusion: MAT344H
Breadth Requirement: Quantitative Reasoning

MATC46H3 Differential Equations II
Sturm-Liouville problems, Green's functions, special functions (Hessian, Legendre), partial differential equations of second order, separation of variables, integral equations, Fourier transform, stationary phase method.
Prerequisite: MATB44H3 & MATB24H3
Corequisite: MATB42H3 Exclusion: APM346H
Breadth Requirement: 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 disease, 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 Requirement: Quantitative Reasoning

MATC59H3 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: MATB44H3 Exclusion: MAT36H3
Breadth Requirement: Quantitative Reasoning

MATC62H3 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: [MATA23H3 & MATA37H3] or [MATA23H3 & MATA36H3] & [CSCA46H3 or MATD24H3] Exclusion: MAT36H3
Breadth Requirement: Quantitative Reasoning

MATC69H3 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: One Grade 12 Mathematics course & 5.0 full university courses Exclusion: MAT390H
Breadth Requirement: 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 cubic, insolvability of quintics by radicals.
Prerequisite: MATC01H
Exclusion: [MATD02H3, MATD47Y, (MATD02H3)]
Recommended Preparation: MATC48H3
Breadth Requirement: Quantitative Reasoning

MATD02H3 Classical Plane Geometries and their Transformations
An introduction to geometry with a selection from the following: symmetry and symmetry groups, finite geometries and applications, non-Euclidean geometry.
Prerequisite: MATA23H3 Corequisite: MATC01H
Exclusion: MAT042H, (MAT36H3), (MAT25H3)
Breadth Requirement: Quantitative Reasoning

MATD14H3

MATD15H3

MATD12H3 Topics in Mathematics
A variety of topics from geometry, analysis, combinatorics, number theory and algebra, to be chosen by the instructor.
Prerequisite: [MATC01H] & [MATC35H3 or MATC37H3] & [MATD15H3 or MATD01H3]

MATD35H3 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: MATC34H3
Exclusion: MAT154H, (MATC65H3)
Breadth Requirement: Quantitative Reasoning

MATD69H3 Introduction to Industrial Mathematics
Meets the statistical requirement for Scientific Computing and Business Analytics.
requests). Data Manipulation (e-transform, filters, Band Pass), Discrete Fourier Transform (real time processing, FFT, image processing). Regression (best fit to discrete data, Hilbert Space, Gram’s theorem), Frequency-Domain Models, Numerical Models for PDE, Galerkin’s methods, Cubic Splines. The course provides extensions of mathematics useful in industrial problems, interweaving analytic and computing methods during problem solving. Prerequisite: MATB4H3 & MATB44H3 & STAT352H3

Recommended Preparation: MATB61H3 & MATC46H3

Breadth Requirement: Quantitative Reasoning

MATD59H3

MATD59H3 Readings in Mathematics

Independent study under direction of a faculty member. Prerequisite: MATC01H3 & [MATC35H3 or MATC37H3] & [MATC15H3 or MATD20H3]

Media Studies

Faculty List
G. Leonard, M.A., Ph.D. (Florida), Professor
M. Mahani, B.A. (Dalhousie), Ph.D. (London), Associate Professor
R. Bai, B.A., M.A. (Beijing Foreign Studies), Ph.D. (Illinois), Assistant Professor
A. Mauwose, M.A., Ph.D. (Cornell), Assistant Professor
K. A. McLeod, M.A. (McMaster), Ph.D. (McGill), Assistant Professor
L. Chan, B.A., M.A. (Toronto), Senior Lecturer
S.L. Helwig, B.A. (Guelph), M.A. (Toronto), Senior Lecturer
D. Hynes, B.F.A. (Ohio State), Senior Lecturer
K. McCutcheon, M.A., Ph.D. (Toronto), Senior Lecturer
M. Petz, M.A., Ph.D. (Colorado), Lecturer
E. Weisser, B.A., M.A. (Toronto), Ph.D. (Case Western Reserve), Lecturer

MAJOR PROGRAM IN MEDIA STUDIES (ARTS)

Program Director: M. Petz Email: mpetz@atc.utoronto.ca
Undergraduate Advisor: 416-287-7164 Email: mds-undergrad-advisor@atc.utoronto.ca

The Major Program in Media Studies is an under review and new enrollment in it has been suspended indefinitely. Students who first enrolled at UTSC prior to the 2019 Summer Session should refer to the 2009-2010 UTSC Calendar. Students who had intended to enroll in the program in 2010/2011 might want to consider applying to the Joint Programs in Journalism or New Media.

The Media Studies Study Guide is available at: www.atc.utoronto.ca/~hmmdv/prg_ms.html

MINOR PROGRAM IN MEDIA STUDIES (ARTS)

Undergraduate Advisor: 416-287-7164 Email: mds-undergrad-advisor@atc.utoronto.ca

Program Requirements

Students must complete 4.0 full credits from the courses below as follows:

1.0 credit from the following:
- MDS01H3 Introduction to Media Studies
- MDS02H3 From Print to Digital: History of Media and Technology

1.0 credit from the following:
- MDSB05H3 Media and Globalization
- MDSB11H3 Critical Approaches to Digital Media

0.5 credit from the following:
- MDSB01H3 Advertising and Consumer Culture
- MDSB23H3 Visual Culture
- VPA05H1 Introduction to Contemporary Cultural Theory
- VPH06H1 Art and the Everyday: Mass Culture and the Visual Arts

0.5 credit from the following:
- MDS03H3 Theories and Methods in Media Studies
- MDS06H3 Legal and Ethical Issues in Media Studies

1.0 credit from the following:
- Any C or D-level MDS course not listed above
- IDSC20H3 Media and Development
Neuroscience

Faculty List
J.W. Gard, B.A. (Mount Allison), Ph.D. (McGill), Professor Emeritus
N.W. Milgram, B.A. (UCLA), M.A., Ph.D. (McGill), Professor Emeritus
R. Boosna, B.Sc. (Calgary), Ph.D. (British Columbia), Professor
T.R. Brown, B.Sc. (Carleton), Ph.D. (Texas), Professor
G.O. Ivy, B.A. (Drew), Ph.D. (California), Professor
T.L. Petit, B.Sc., M.A. (Louisiana), Ph.D. (Florida), Professor
S. Erh, B.Sc. (Wilfrid Laurier), M.A., Ph.D. (Concordia), Associate Professor
A.C. Mass, B.Sc. (Guelph), M.Sc., Ph.D. (Toronto), Associate Professor
M. Piezceker, M.A. (Hamburg), Ph.D. (Tubingen), Associate Professor
S.G. Reid, B.Sc., Ph.D. (Ottawa), Associate Professor
K.K. Zakrzewski, B.A., M.A., Ph.D., C.Psych. (York), Associate Professor
M.M. Aarts, B.Sc., M.Sc. (Western), Ph.D. (McGill), Assistant Professor
D.W. Haley, B.A. (Amsterdam), M.A. (San Francisco), Ph.D. (Albuquerque), Assistant Professor
R. Russ, B.A. (Oxford), Ph.D. (Cambridge), Assistant Professor
J.E. Nish, B.Sc. (Edinburgh), M.Sc., Ph.D. (Manchester), Assistant Professor
D. Nsababu, B.A., M.A. (York), Ph.D. (Waterloo), Assistant Professor
A.C. Racco, B.A. (York), M.Sc., Ph.D., C. Psych (Drew), Assistant Professor
J.G. LeBloulleiller, B.Sc., M.A., Ph.D. (Toronto), Senior Lecturer

Associate Chair & Program Supervisor: J. LeBloulleiller Email: neuroscience-program-supervisor@istc.utoronto.ca
Course Support & Program Advisor: Hannah Donagle Email: hdonagle@istc.utoronto.ca

Neuroscience encompasses aspects of a variety of disciplines that have the common goal of understanding how the nervous system works. Techniques from constituent disciplines like anatomy, biochemistry, molecular biology, pharmacology, physiology, psychology and zoology are used to unravel some of the mysteries of the brain and its mechanisms of action. Investigators in Neuroscience have also made fundamental contributions to clinical aspects of neurodysfunction and behaviour.

The Major Program is intended for students who wish to combine their studies of Neuroscience with other areas of interest. The Specialist Program is designed for students who have a particular interest in the Neuroscience and wish to focus their studies in this area. The Specialist (Co-operative) Program provides the student with a broad background in neuroscience, with intensive lab experience and practical experience in real job settings. In very few instances, courses from the other campuses may be used to satisfy program requirements. However such substitutions must be pre-approved by the Program Supervisor, in writing, on an official form obtained from the Registrar's Office.

Admission to Neuroscience Programs
The Specialist and Major programs in Neuroscience have enrolment limits. Every year students will be admitted to the Specialist Programs in Neuroscience including Co-operative studies and the major program in NS0. Entry into these programs can be gained as follows:
1. Direct entry: Students may be admitted directly from high school, on the basis of academic performance and must have completed Grade 12 advanced courses. Students who meet these criteria and who have achieved a minimum of 85% in chemistry and physics, and 70% in biology, may be admitted to the Neuroscience program. In addition, they must have completed their 4th year of high school and have a minimum of 85% in mathematics or chemistry. Students who do not meet these criteria may be admitted to the Neuroscience program by obtaining advanced standing or by completing prerequisite courses.

2. Admission after first year: Students who have not completed the required courses for admission to the Neuroscience program may apply for admission after the completion of their first year. Admission will be based on the student's academic performance and the availability of space in the program. Students who are admitted after the first year may be required to complete additional coursework to meet the program requirements.

Neuroscience courses

Priority access to Neuroscience courses will be given to students who have been admitted to the program. Students are encouraged to consult with their academic advisor to determine the courses that will be most beneficial to their career goals.

First-Year Courses

BIOA1003, BIOA1013, CHMA1013, CHMA1113, PSYA0113 and PSYA0123 are recommended for students in their first year. These courses provide a strong foundation in the basic sciences and are essential for students who are interested in pursuing a career in Neuroscience.

Science Engagement Courses

Science Engagement courses are designed to provide students with opportunities to engage with the scientific community and to develop important skills such as critical thinking and problem-solving.

SPECIALIST PROGRAM IN NEUROSCIENCE (SCIENCE)

Associate Chair & Program Supervisor: J. LeBoutillier Email: neuroscience-program-supervisor@utsc.utoronto.ca
Course Support & Program Advisor: Heman Domlog Email: bdemolog@utsc.utoronto.ca

Program Requirements

The program requires completion of 14.0 credits:

1. The following 4.0 credits:
   - BIOA1013 Life on Earth: Unifying Principles
   - BIOA1023 Life on Earth: Form, Function and Interactions
   - CHMA1013 Introductory Chemistry I: Structure and Bonding
   - CHMA1113 Introductory Chemistry II: Reactions and Mechanisms
   - [MATA30H3 Calculus I for Biological and Physical Sciences or (MATA20H3 Calculus A)]
   - [PHYA1013 Physics IA or PSYA1113 Physics IB]
   - PSYA0113 Introductory Psychology: Part I
   - PSYA0123 Introductory Psychology: Part II

2. The following 4.0 credits:
   - BIOB1013 Cell Biology
   - BIOB1113 Molecular Aspects of Cellular and Genetic Processes
   - BIOB3033 Mammalian Physiology I
   - CHMB4113 Organic Chemistry I
   - CHMB4213 Organic Chemistry II
   - NROB6013 Neuroanatomy Laboratory
   - PSYB6333 Human Brain & Behavior
   - [STAT2233 Statistics I or PSYB6713 Data Analysis in Psychology]

3. The following 5.0 credits:
   - BIOC1223 Biochemistry I: Proteins & Enzymes
   - BIOC1233 Biochemistry II: Energy & Metabolism
   - BIOC3513 Mammalian Physiology II: Lecture & Laboratory
   - NRSC3403 Neuroethology (Invertebrate Neurobiology)
   - NRSC6513 Learning & Motivation
   - NRSC3113 Neuroscience Laboratory
   - NRSC6413 Sensory & Motor Systems
   - NRSC6913 Synaptic Organization & Physiology of the Brain
   - PSYB6613 Advanced Data Analysis in Psychology
   - PSYB6813 Drugs & the Brain
4. 1.0 credit from the following:
   BIO279H Molecular Endocrinology
   BIO451H Animal Communication
   BIO655H Pathologies of the Nervous System
   NRG006H3 Current Topics in Neuroscience
   NRG006H3 Advanced Neuroscience Laboratory
   NRG066H3 Drug Addiction
   NRG067H3 Psychology of Aging
   PSYD171H Social Neuroscience
   PSYD313H Current Topics in Abnormal Psychology
   PSYD440H3 Current Topics in Human Brain & Behaviour

Note: 0.5 credit of NROD98Y3, Thesis in Neuroscience, may also be counted towards Requirement 4.

SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE (SCIENCE)
Associate Chair & Program Supervisor: J. Lebontinier Email: jlebontinier@utsc.utoronto.ca
Course Support & Program Advisor: Hanni Domolege Email: hdomolege@utsc.utoronto.ca

The Neuroscience Co-operative program is designed to provide the student with a broad education in neuroscience, including neuroanatomy, neurophysiology, behaviour, psychology, biochemistry, cell and molecular biology and data analysis through lectures, lecture/lab and intensive laboratory courses. The program combines academic studies in the field of neuroscience with practical work experience in settings in which scientific knowledge from various subfields in the discipline is applied. Students may apply for work term employment in settings such as research and development departments in industry, educational institutions, health care institutions and government agencies.

The work experience provided by the program enables students to explore career opportunities that may be pursued following the bachelor's degree. Work settings may also provide students with the opportunity to observe neuroscientists interacting with other professionals, hence providing a broader and more informed basis for the selection of a post-graduate program appropriate to the student's talents and interests. Some work settings will provide the opportunity for participation in applied research.

For information on admissions, fees, work terms and standing in the program, please see Co-operative Programs section of this Calendar.

Program Admission
Enrollment in the program is limited.

Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this Calendar.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website at: www.utsc.utoronto.ca/subject/ps.

The minimum qualifications for entry are 4.0 credits including BIOA01H3, BIOA02H3, CHMA100H3, CHMA110H3, PSYA01H3 & PSYA02H3 plus a cumulative GPA of at least 2.75.

Program Requirements

Work Terms
The program requires eight four-month terms of study and two four-month work terms over a four year period. To be eligible for their first work term, students must have completed at least 10.0 credits including: BIOB10H3, BIOB11H3, BIOB12H3, BIOB30H3, CHMB11H3, CHMB12H3, NROB60H3, NROB61H3 or NROB64H3. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term.

To be eligible for their second work term, students must have completed at least 12.5 full credits and have received satisfactory evaluation for their performance and for their report on their first work term.

Course Requirements
The program requires the completion of 15.0 credits including the 14.0 credits as specified in the Specialist Program in Neuroscience, plus the following:
1. BIOB12H3 Cell and Molecular Biology Laboratory
2. BIOC231H3 Practical Approaches to Biochemistry
3. The Arts & Science Co-op Work Term Preparation course

MAJOR PROGRAM IN NEUROSCIENCE (SCIENCE)
Associate Chair & Program Supervisor: J. Lebontinier Email: neuroscience-program-supervisor@utsc.utoronto.ca
Course Support & Program Advisor: Hanni Domolege Email: hdomolege@utsc.utoronto.ca
Program Requirements

The Program requires completion of 8.0 credits. Students who wish to combine the Major Program in Neuroscience with the Major in Biology or the Major in Mental Health Studies or the Major in Psychology are advised that they must present 12.0 distinct credits to receive certification of the completion of both programs. Consultation with the respective Program Supervisors in the selection of credits is recommended.

The following indicates the required credits for the Major

Program in Neuroscience:

1. The following 3.0 credits:
   - BIOA01H3 Life on Earth: Unifying Principles
   - BIOA02H3 Life on Earth: Form, Function and Interactions
   - CMMA10H3 Introductory Chemistry I: Structure and Bonding
   - CMMA11H3 Introductory Chemistry II: Reactions and Mechanisms
   - PSYA01H3 Introductory Psychology: Part I
   - PSYA02H3 Introductory Psychology: Part II

2. The following 3.0 credits:
   - BIOB11H3 Cell Biology
   - BIOB12H3 Molecular Aspects of Cellular and Genetic Processes
   - BIOB13H3 Mammalian Physiology I
   - NROB60H3 Neuroanatomy Laboratory
   - PSYB01H3 Human Brain and Behaviour
   - [STAT22H3 Statistics I or PSYB07H3 Data Analysis in Psychology]

3. The following 1.0 credit:
   - NROC61H3 Learning and Motivation

4. The following 1.0 credit from the following:
   - BIOC63H3 Mammalian Physiology II: Lecture & Laboratory
   - BIOG31H3 Molecular Endocrinology
   - BIOG41H3 Animal Communication
   - BIOD65H3 Pathologies of the Nervous System
   - NROC64H3 Neuroethology
   - NROC69H3 Neuroanatomy Laboratory
   - NROC61H5 Synaptic Organization & Physiology of the Brain
   - NROC80H3 Taught Study in Neuroscience
   - NROD60H3 Current Topics in Neuroscience
   - NROD63H3 Advanced Neuroscience Laboratory
   - NROD64H3 Drug Addiction
   - NROD67H3 Psychobiology of Aging
   - PSYC32H3 Drugs and the Brain
   - PSYD13H3 Social Neurosciences
   - PSYD31H3 Current Topics in Abnormal Psychology
   - PSYD65H3 Current Topics in Human Brain & Behaviour

NROB60H3 Neuroanatomy Laboratory

This course will focus on lab neuroanatomy at both the human and animal level. This will also include examination of the structure and function of neurons and glia, neurochemistry, and neurotransmitters of communication at the cellular and molecular level.

Prerequisite: BIOA01H3 & BIOA02H3 & PSYA02H3. Note: CMMA10H3 & CMMA11H3 are strongly recommended for students with no Chemistry background.

Exclusion: CSB323H, PSY290H, PSY391H, ZOO322H

Breadth Requirement: Natural Sciences

NROC61H3 Learning and Motivation

Topics covered under the category of motivation include: physiological basis of eating, drinking and sexual behaviour, sleep, and the neural correlates of reward. Topics covered under learning include: learning categories, memory systems and the cellular and molecular basis of learning and memory.

Prerequisite: BIOB11H3 & NROB60H3

Breadth Requirement: Natural Sciences

NROD63H3 Neuroscience Laboratory

In a variety of techniques used in investigations of nervous system function, behaviour, techniques, neurological manipulation, perfusions, histology, animal ethics and the preparation of scientific papers will be covered. Priority will be given to students enrolled in the Neuroscience Specialist Program (Co-op and Non-co-op).

Prerequisite: [PSYB07H3 or STAT22H3] & NROB60H3

Exclusion: PSY399H

Breadth Requirement: Natural Sciences
216 Neuroscience

Enrollment Limits: 20
Breadth Requirement: Natural Sciences

NROC6463 Sensory and Motor Systems
A focus on the mechanisms by which the nervous system processes sensory information and controls movement.

The topics include sensory transduction and the sensory physiology for each of the sensory systems (olfactory, visual, somatosensory, auditory, gustatory) and models of sensory processing. Both spinal and central mechanisms of motor control are also covered.
Prerequisite: BIOL3603 & NROB4603H
Exclusion: PSY295H
Breadth Requirement: Natural Sciences

NROC6803H Synaptic Organization and Physiology of the Brain
Neuronal morphology, synaptic connectivity, and molecular mechanisms of synaptic function are covered in detail. Similarities in circuitry among such diverse structures as the olfactory bulb, cerebellum, hippocampus and neocortex are examined in detail. The goal is to engender a deeper understanding of cellular mechanisms of information processing in the CNS.
Prerequisite: BIOL3603 & NROC6503H
Breadth Requirement: Natural Sciences

NROC6503H 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. NROC6503H & NROC6513H provide an opportunity to engage in research in an area after completing basic coursework 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 from the Department of Psychology’s website (www.uts.cc.utah.edu/psych/undergraduate) 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: 3.0 credits in Psychology, Biology or Neurosciences & permission of instructor.
Exclusion: For NROC6503H: PSYC3915H
For NROC6513H: PSYC3915H

NROC6503H Current Topics in Neuroscience
An intensive examination of selected issues and research problems in the Neurosciences.
Prerequisite: NROC6113H & NROC6463H

NROC6303H Advanced Neuroscience Laboratory
An introduction to a variety of advanced techniques used to investigate nervous system functioning. Advanced molecular and cellular biochemical techniques used in the neurosciences will be covered as well as histology, methodology and image analysis.
Prerequisite: NROC6113H & NROC6463H
Corequisite: PSY309H
Exclusion: PSY399H
Enrollment Limits: 20
Breadth Requirement: Natural Sciences

NROC6603H 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 behavior during each phase of the cycle. Recent empirical findings will be examined within the context of major theoretical models guiding the field.
Prerequisite: [NROC6113H or NROC6463H] & PSYC3213H
Corequisite: PSYC3915H
Exclusion: NROC6603H (if taken in the 2009 Fall Session)
Enrollment Limits: 20
Breadth Requirement: Natural Sciences

NROC6710 Psychological of Aging
This course will characterize various anatomical, biochemical and physiological changes that occur in the nervous system with age and will explore the association between these changes and cognitive deterioration. We will examine several age-related disease states and evaluate the validity of current theories and experimental models of aging in depth.
Prerequisite: NROB6013H & [NROC6113H or NROC6463H]
Corequisite: NROC6113H
Enrollment Limits: 20
Breadth Requirement: Natural Sciences

NROC6103 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 Seniors in Neuroscience with a cumulative GPA of 3.3 or higher. Students planning to pursue graduate studies are especially encouraged to enroll in the course. Students must obtain a permission form from the Department of Psychology's website (www.uts.cc.utah.edu/psych/undergraduate) 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 supervision with a faculty member in Neuroscience at UTSC.
Prerequisite: Satisfactory completion of 15.0 credits in any discipline, including PSYB070Z and one laboratory half-course in Psychology, Biology or Neuroscience and consent of a faculty member in Psychology or Biology to serve as a research supervisor.

New Media Studies

Faculty List
M. Mahntani, B.A. (Dalhousie), Ph.D. (London), Associate Professor
K. Liddle, B.A. (Oberlin), M.A. (Auburn), Ph.D. (Emory), Assistant Professor
L. Chan, B.A., M.A. (Toronto), Senior Lecturer

Program Supervisor: M. Petit Email: new-media@utsc.utoronto.ca

New Media Studies critically analyzes the social, cultural, economic and political dynamics of new media, how new forms of cultural representations are created, consumed, and shared through digital media, and the effects of digital technology on traditional media forms. The Joint Program in New Media studies between UTSC and Centennial College's Centre for Creative Communication (CCC) is unique and runs across academic disciplines. It allows students to combine critical study and interdisciplinary academic research at UTSC and Centennial College with the technical education and industry experience on offer at CCC. Students in the program learn the techniques necessary to create new digital representations and, more importantly, the theories and practice of using these media to achieve desired purposes, both within their academic programs and as preparation for future careers. This program may be taken in partial fulfillment of the requirements of a four year (20 credit) Honours Degree, when taken with a major (or specialist) program in another field. In addition to completing the requirements for the degree, students have the option of qualifying for a certificate from Centennial College by undertaking one additional session that includes a field placement and a professional practice course.

Program Admission:
Limited enrolment.
For students already at U of T Scarborough, admission is by competitive application after the completion of 4 full credits, typically at the end of the first year. To be competitive, students should have a minimal 2.9 overall grade point average and 3.0 or higher in Media Studies courses. Students must request the program through ROSI by the appropriate deadline and submit the Supplementary Application Form directly to the program supervisor by the same deadline. Students may be required to attend an interview before the admission decision is made. For more details on application procedures and deadlines, see the New Media Studies section of the Joint Program website: www.utsc.utoronto.ca/~jprogs/newMedia.html

Guidelines for 1st year course selection
Students who intend to apply to the Joint Program in New Media Studies must include MDSA01H3 Introduction to Media Studies and MDSB01H3 Critical Approaches to Digital Media in their 1st year course selection. Students are also strongly encouraged to take HUMA01H3 Exploring Key Questions in the Humanities during their first year. The New Media Study Guide is available at: www.utsc.utoronto.ca/~huminf/jpg_newmedia.html

MAJOR (JOINT) PROGRAM IN NEW MEDIA STUDIES (ARTS)
Undergraduate Advisor: 416-287-7184 Email: nm-undergrad-advisor@utsc.utoronto.ca

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. 2.0 full credits:
   MDSA01H3 Introduction to Media Studies
   MDSA02H3 From Print to Digital: History of Media and Technology
   MDSB01H3 Critical Approaches to Digital Media
   MDSB02H3 Visual Culture
2. 1.0 additional full credit from the MDS course list
3. 0.5 credit from the following:
   CSCA08H3 Introduction to Computer Programming
   CSCA44H3 Introduction to Computer Science
   ECMT2073 Economics of the Media
   ENGC3503 Literature and Media: From Page to Screen
   SOC3501H Sociology of Culture

Note: Preference will be given to students in a specialist program in Neuroscience whose 15.0 credits include PSYB070Z and who have a cumulative GPA of at least 3.3. Exclusion: BIOD95YS, PSYDM9Y3, (BIOYD96YS); (BIOYD99YS), (BIOYD00Y3), (BIOYD62Y3)
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SOCC44H3 Media and Society
VPA305H3 Collaborations in the Visual and Performing Arts
VPA406H3 Visual and Performing Arts in the Digital Age
VPA605H3 Introduction to Contemporary Cultural Theory
VPS629H3 Foundation Studies in Studio
VPS722H3 Introduction to Photography
VPS741H3 Introduction to Digital Studio Practice
VPSB74H3 Photo-based Work
VPSB78H3 Intermediate Video
VPSB88H3 Digital Studio Practice
WSTB13H3 Women and the Media

4. Centennial College:

New Media Group 1.
Students will be eligible to enrol in these courses after successfully completing at least 10 full credits at University of Toronto Scarborough, which must include the completion of requirements 1, 2, and 3 above.
NMEE01H3 Digital Fundamentals
NMEE02H3 Introduction to New Media Communications
NMEE03H3 The Language of Design
NMEE04H3 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 Group 1.
NMEE05H3 Interface Design, Navigation and Interaction II
NMEE06H3 Project Development and Presentation
NMEE07H3 Application Software for Interactive Media
NMEE08H3 Sound Design
NMEE10H3 Design for New Media

5. 1.0 full credit:
NMED01H3 New Media Senior Project
NMED20H3 Theory and Practice of New Media

The following NME courses are taught at UTSC: NMED01H3 and NMED20H3. All other NME courses are taught at Centennial College.
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, color 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.
Prerequisite: 10 full credits
Corequisites: NMEA02H3, NMEA03H3, NMEA04H3
Enrollment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirement: 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.
Prerequisite: 10 full credits
Corequisites: NMEA01H3, NMEA03H3, NMEA04H3
Enrollment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirement: History, Philosophy & Cultural Studies

NMEA03H3 The Language of Design
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.
Prerequisite: 10 full credits
Corequisites: NMEA01H3, NMEA02H3, NMEA03H3
Enrollment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirement: 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.
Prerequisite: 10 full credits
Corequisites: NMEA01H3, NMEA02H3, NMEA03H3
Enrollment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirement: Arts, Literature & Language

NMEA05H3 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
Enrollment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirement: Arts, Literature & Language

NMEB04H3 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
Corequisites: NMEB05H3, NMEB06H3, NMEB09H3, NMEB10H3
Enrollment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirement: Social & Behavioural Sciences

NMEB06H3 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
Enrollment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirement: Social & Behavioural Sciences

NMEB08H3 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
Corequisites: NMEB05H3, NMEB06H3, NMEB09H3, NMEB10H3
Enrollment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirement: 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
Corequisites: NMEB05H3, NMEB06H3, NMEB09H3, NMEB09H3
Enrollment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirement: Arts, Literature & Language
NMED201H3 New Media Senior Project
This course requires students to create a new media project, combining their learning in new media with another academic discipline (typically their other major). Projects can be websites, CDs or other suitable media. All projects will be evaluated both by the course convener and by a supervisor in another suitable academic discipline. Prerequisite: Completion of 15 full credits including [MDS4A1H3 or (NME2A1H3) & (NMEDA21H3)], NMEDA90H3, NMEDA91H3, NMEDA92H3, NMB109H3 & NMB208H3. Enrolment limits: 35
NMED209H3 Theory and Practice of New Media
A seminar course providing critical reflection on digital media applications and their implementation in a variety of settings, including education, publishing, performing arts, video and film production. Students will also examine the ideological, political, structural, and representational assumptions underlying much of new media production and consumption in contemporary society. Prerequisites: NMEDA60H3, NMB109H3, NMB108H3, NMB109H3 & NMB108H3. Enrollment limits: 35
Breadth Requirement: History, Philosophy & Cultural Studies
Media Studies
MDS4A1H3 Introduction to Media Studies
MDS4B3H3 Advertising and Consumer Culture
MDS4B9H3 Media and Globalization
MDS5B1H3 Critical Approaches to Digital Media
MDS5B2H3 Visual Culture
MDS5C2H3 Topics in Media, Identities and Politics
See the Media Studies section of this Calendar for full course descriptions.

Paramedicine
Faculty List
S.G. Reid, B.Sc., Ph.D. (Ottawa), Associate Professor

SPECIALIST (JOINT) PROGRAM IN PARAMEDICINE (SCIENCE)
Supervisor of Studies: Stephen Reid Email: paramedicine@utsc.utoronto.ca

This program consists of 18.0 required credits and may be taken in fulfillment of the requirements of a four-year (20-credit) Honours Degree. Students taking this program must take an additional 2 credits of electives. When choosing electives keep in mind the minimum breadth requirements that must be met to complete a degree. It is advisable that, including electives, students plan to take 2.5 credits in each semester of their four-year degree. Note that three of the PMD courses are 1.0 credit (Y courses) rather than 0.5 credit (H courses). 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.

Program Admission
Limited enrollment. Applicants must fill out a joint program supplementary application 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 are also required. Additional details regarding these requirements may be found at Centennial’s website or by contacting Walter Tavara at Centennial College (WTavara@centennialcollege.ca). Applicants may arrange to complete some of these requirements during the first year of their studies at the University of Toronto Scarborough.

For more information on admission and deadlines, see the Joint Programs with Centennial College section of this Calendar.

Program Requirements
Note: In order to remain in the program, students must typically maintain a cumulative grade point average of at least 2.0. Students whose cumulative GPA falls below 2.0 should consult the program supervisor to discuss their options. Please note that 20 credits are required to complete a degree. In the case of the Joint Paramedicine Specialist Program these 20 credits include the 18 required credits and 2 elective credits. Students should ensure that they are familiar with the UTSC Degree Requirements.

Program Requirements (Note: suggested course sequences follow below)

1.0 Credit of Introductory Biology Courses
BIAA01H3 Life on Earth: Unifying Principles
BIAA02H3 Life on Earth: Form, Function and Interactions

2.0 Credits of Core Biology Courses
BIOL01H3 Cell Biology
BIOL111H3 Molecular Aspects of Genetic Processes
BIOL330H3 Mammalian Physiology I
BI0B33H3 Human Development and Anatomy

2.0 Credits of Foundational Biology Courses
- BI0C1H3 Genetics
- BI0C1H3 Microbiology: The Bacterial Cell
- BI0C2H3 Vertebrate Histology: Cells and Tissues
- BI0C3H3 Mammalian Physiology II: Lecture and Laboratory

1.0 Credit of Advanced Biology Courses
Choose From:
- BI0D7H3 Seminars in Cellular Microbiology
- BI0D3H3 Comparative Animal Physiology
- BI0D6H3 Pathologies of the Nervous System
- BI0D2H3 Fungal Biology and Pathogenesis
- BI0D4H3 Exercise Physiology
- BI0D9H3 Pathobiology of Human Disease
- BI0D9Y3 Directed Research in Paramedicine

1.0 Credit of Introductory Chemistry Courses
- CHMA1H3 Introductory Chemistry I: Structure and Bonding
- CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

1.0 Credit of Introductory Psychology Courses
- PSY0A1H3 Introductory Psychology: Part I
- PSY0A2H3 Introductory Psychology: Part II

1.0 Credit of B-Level Psychology Courses
- PSYB0H3 Introduction to Developmental Psychology
- PSYB2H3 Abnormal Psychology

1.0 Credit of Statistics/Data Analysis Courses
- STAB2H3 Statistics I
- or
- PSYB0H3 Data Analysis in Psychology
- PSYC08H3 Advanced Data Analysis in Psychology

Note: Students who do not take PSYB0H3 must complete an upgrade module prior to taking PSYC08H3.

1.0 Credits of Paramedicine Courses
* PMDB2H3 Pre-Hospital Care I: Theory and Lab
* PMDB25H3 Therapeutic Approaches to Behaviour in Crisis
* PMDB28H3 Alterations of Human Body Function I
* PMDB28Y3 Pre-Hospital Care 2: Theory, Lab and Clinical
* 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.

1.0 Credit of C-Level Anthropology Courses
- ANTC07H3 Foundations in Epidemiology
- ANTC08H3 Deconstructing Epidemics

Suggested Program Sequence
Note: Students may also take courses in the summer, when offered. BI0B10Y3 may be taken in the summer in place of BI0B10H3 & BI0B11H3.

Year 1: Fall Session
a. BI0M1H3 Life on Earth: Unifying Principles
b. CHMA11H3 Introductory Chemistry I: Structure and Bonding
c. PSY0A1H3 Introductory Psychology: Part I
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d. PSYB07H3 Data Analysis in Psychology (fall) & 0.5 credits of elective courses

or
e. 1.0 credit of elective courses

Year 1: Winter Session
a. BIOA02H3 Life on Earth: Form, Function and Interactions
b. CHEM11H3 Introductory Chemistry II: Reactions and Mechanisms
c. PSYB02H3 Introductory Psychology: Part II
d. STAB22H3 Statistics I & 0.5 credits of elective courses

or

credits of elective courses

Year 2: Fall Session
a. BIOB14H3 Cell Biology
b. BIOB33H3 Human Development and Anatomy
c. PMDB22H3 Pre-Hospital Care I: Theory and Lab
d. PMDB25H3 Therapeutic Approaches to Behaviour in Crisis
e. PMDB41H3 Professional Issues, Research and Leadership

Year 2: Winter Session
a. BIOB11H3 Molecular Aspects of Genetic Processes
b. PMDB06H3 Alterations of Human Body Function I
c. PMDB32Y3 Pre-Hospital Care 2: Theory, Lab and Clinical
d. PMDB46H3 Pharmacology for Allied Health Pre-requisite

Year 3: Fall Session
a. BIOB36H3 Mammalian Physiology I
b. PMDC40H3 Alterations in Human Body Function II
c. PMDC47Y3 Pre-Hospital Care 3: Theory, Lab and Field
d. PMDC43H3 Medical Directed Therapeutics and Paramedic Responsibilities

Year 3: Winter Session
a. BIOC17H3 Microbiology: The Bacterial Cell
b. BIOC33H3 Mammalian Physiology II: Lecture and Laboratory
c. PMDC45Y3 Pre-Hospital Care 4: Theory, Lab and Field
d. PMDC59H3 Primary Care Practice Integration and Decision Making

Year 4: Fall Session
a. BIOC11H3 Genetics
b. BIOC21H3 Vertebrate Histology: Cells and Tissues
c. PSYB29H3 Introduction to Developmental Psychology
d. PSYB32H3 Abnormal Psychology
e. BIOD33H3 Comparative Animal Physiology or BIOD56H3 Pathologies of the Nervous System or BIOD26H3 Fungal Biology and Pathogenesis or BIOD90Y3 Directed Research in Paramedicine

Year 4: Winter Session
PSYCO9H3 Advanced Data Analysis in Psychology
ANTC57H3 Foundations in Epidemiology
ANTC58H3 Decomposing Epidemics
BIOD31H3 Seminars in Cellular Microbiology or BIOD43H3 Exercise Physiology or BIOD29H3 Pathobiology of Human Disease

0.5 credits of elective courses

Note: Students may take any 2 of these D-level courses to meet program requirements. The sequence here merely reflects current scheduling of courses in the various sessions.

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 secondary assessment, and the implementation of patient care based on interpretation of assessment findings. Discusses principles of physical and psychosocial 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 & BIOA02H3
Corequisite: PMDB25H3, PMDB41H3, BIOB33H3
Enrollment Limit: Enrollment is restricted to students in the Specialist Program in Paramedic.
Breadth Requirement: 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 & BIOA02H3
Corequisite: PMDB2H3, PMDB4H3, BIOB33H3
Enrolment Limits: Enrolment is restricted to students in The Specialist Program in Paramedicine.
Breadth Requirement: History, Philosophy & Cultural Studies

PMDB30H3 Alterations of Human Body Function I
Diseases 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: PMDB2H3, PMDB25H3, PMDB41H3,
BIOB33H3
Corequisite: PMDB32Y3, PMDB36H3
Enrolment Limits: Enrolment is limited to students in the
Specialist Program in Paramedicine
Breadth Requirement: 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 crises due to the effects of illness or trauma.
The resulting patho-physiological or psychological
manifestations is used 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: PMDB2H3, PMDB25H3, PMDB41H3,
BIOB33H3
Corequisite: PMDB38H3, PMDB39H3
Enrolment Limits: Enrolment is limited to students in the
Specialist Program in Paramedicine
Breadth Requirement: 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
doses. This course is taught at the Centennial HP Science
and Technology Centre.
Prerequisite: PMDB2H3, PMDB25H3, PMDB41H3,
BIOB33H3
Corequisite: PMDB300H3, PMDB32Y3
Enrolment Limits: Enrolment is limited to students in the
Specialist Program in Paramedicine
Breadth Requirement: 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 & BIOA02H3
Corequisite: PMDB2H3, PMDB25H3, BIOB33H3
Enrolment Limits: Enrolment is restricted to students in the
Specialist Program in Paramedicine
Breadth Requirement: Social & Behavioural Sciences

PMDC48H3 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
management. This course is taught at the Centennial HP Science
and Technology Centre.
Prerequisite: PMDB30H3, PMDB32Y3, PMDB36H3,
BIOB111H3
Corequisite: PMDC42Y3, PMDC43H3
Enrolment Limits: Enrolment is limited to students in the
Specialist Program in Paramedicine
Breadth Requirement: 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 rhythms,
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, PMDB32Y3, PMDB36H3,
BIOB111H3
Corequisite: PMDC40H3, PMDC43H3
Enrolment Limits: Enrolment is limited to students in the
Specialist Program in Paramedicine
Breadth Requirement: 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, PMDB32Y3, PMDB36H3,
BIOB111H3
Corerequisite: PMDC401H, PMDC42Y3
Enrollment Limits: Enrollment is limited to students in the Specialist Program in Paramedicine.
Breadth Requirement: History, Philosophy & Cultural Studies.

PMDC545Y3 Pre-Hospital Care 4: Theory, Lab and Field
Concludes 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: PMDC465H1, PMDC451Y3, PMDC465H3
Corerequisite: PMDC565H3
Enrollment Limits: Enrollment is limited to students in the Specialist Program in Paramedicine.
Breadth Requirement: Natural Sciences

PMDC681H3 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, pathophysiology, 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: PMDC481H3, PMDC42Y3, PMDC431H1
Corerequisite: PMDC545Y3
Enrollment Limits: Enrollment is limited to students in the Specialist Program in Paramedicine.
Breadth Requirement: Natural Sciences

BIOC965Y3 Directed Research in Paramedics
See the Biological Sciences section of this Calendar for a full course description.

Philosophy

Faculty List
W.C. Graham, M.A., Ph.D. (Toronto), Professor Emeritus
W.E. Seager, M.A. (Alberta), Ph.D. (Toronto), Professor Emeritus
B. Hellek, B.A. (Stanford), Ph.D. (Princeton), Associate Professor
P.A. Kramer, B.Sc. (Toronto), Ph.D. (Pittsburgh), Associate Professor
L.M. Lange, B.A. (Manitoba), Ph.D. (Toronto), Associate Professor
S. Sedivy, B.A. (Toronto), Ph.D. (Pittsburgh), Associate Professor
J. Wilson, B.A. (U.C. San Diego), Ph.D. (Cornell), Associate Professor
K. Hubsch, B.A. (Williams), M.A. (Warwick), Assistant Professor

Program Director: S. Sedivy Email: philosophy-program-supervisor@uwaterloo.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. So philosophy emphasizes interpretation and original thought, reasoning, discussion and assessment.

PHL261H1 and PHL211H3 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.

C-level seminars in Philosophy are advanced courses for students with typically 1.5 credits in Philosophy. (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 seminars in Philosophy are advanced courses for students with 3.5 credits in philosophy including 1.5 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.

Guidelines for 1st year course selection

Students who intend to complete a Philosophy program should include PHLA10H3 & PHLA11H3 in their 1st year course selection. Students are also strongly encouraged to take HUMA01H3 (Exploring Key Questions in Humanities) as early as possible in their studies.

SPECIALIST PROGRAM IN PHILOSOPHY (ARTS)
Program Supervisor: S. Sedivy Email: philosophy-program-supervisor@ust:e.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 4.0 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: PHLM09H3 Writing Philosophy is strongly recommended for the Philosophy Specialist and Major programs and is important preparation for advanced C- and D-level studies in Philosophy.

MAJOR PROGRAM IN PHILOSOPHY (ARTS)
Program Supervisor: S. Sedivy Email: philosophy-program-supervisor@ust:e.utoronto.ca

Program Requirements
Students must complete at least 7.0 credits in Philosophy including PHLB50H3 Symbolic Logic I or PHLB55H3 Puzzles and Paradoxes and at least 2.0 credits must be at the C- or D-level. MATC09H3 can be used as a Philosophy course for these purposes. Note: PHLM09H3 Writing Philosophy, is strongly recommended for the Philosophy Specialist and Major programs and is important preparation for advanced C- and D-level studies in Philosophy.

MINOR PROGRAM IN PHILOSOPHY (ARTS)
Program Supervisor: S. Sedivy Email: philosophy-program-supervisor@ust:e.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.

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.

Breadth Requirement: 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 to that branch of philosophy that concerns ethical issues and considers their application to contemporary moral problems.

Exclusion: PHLB27H3

Breadth Requirement: 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? Do animals have moral status? These fundamental questions underlie more specific contemporary issues such as sustainable development, alternative energy, and animal rights.

Exclusion: PHLB27H3

Recommended Preparation: PHLA11H3

Breadth Requirement: 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: PHLB28H3

Breadth Requirement: 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 Requirement: Arts, Literature & Language
PHILB90H3 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 Requirement: Social & Behavioural Sciences

PHILB90H3 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: MGTC59H3, PHIL295H1
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB71H3 Happiness and Freedom
What is well-being? What is autonomy? These two notions are central in ethical theory, law, bioethics, and in the popular imagination. In this course we will explore well-being and autonomy in more depth, and then consider how our views about well-being and autonomy shape our views about ethics.
Enrollment Limits: 100
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB80H3 Ethics and International Development
Ethics is concerned with right actions - with questions of how we should treat one another. This course will focus on ethical questions that arise in the context of international, cross-cultural interactions with a particular focus on the interactions between the developed world and the developing world. Enrollment Limits: 100
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB89H3 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: PHIL281H, PHIL281Y1
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB11H3 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 interaction of law and morality, such as punishment, freedom of expression and censorship, autonomy and paternalism, constitutional protection of human rights.
Exclusion: PHIL271H
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB12H3 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: PHIL267H1
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB15H3 Philosophy of Education
A philosophical study of the nature, practice and value of education. Major philosophical accounts of education will be examined. Topics to be considered may include: the nature, aims, and content of education, education and indoctrination, the role and justification of educational institutions, authority and freedom in the school.
Exclusion: PHIL272H1
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB16H3 Political Philosophy: Ancient Greece and the Middle Ages
This course will introduce some important thinkers in political philosophy, such as Plato, Aristotle, Augustine and Aquinas.
Exclusion: PHIL265H1 Note: PHILB16H3 may not be taken after or concurrently with POLS178H1.
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB17H3 Political Philosophy: The Modern Period
This course will introduce some important thinkers in political philosophy from the 15th Century to the 19th Century. These may include Thomas Hobbes, John Locke, Jean-Jacques Rousseau, G.W.F. Hegel, John Stuart Mill, or Karl Marx.
Exclusion: PHIL265H1 Note: PHILB17H3 may not be taken after or concurrently with POLS178H3.
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB20H3 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 skepticism, the scope and limits of human knowledge, the nature of perception, rationality, and theories of truth.
Exclusion: PHIL230H1
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB30H3 Existentialism
A study of the views and approaches pioneered by such writers as Kierkegaard, Husserl, Jacques, 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: PHIL224H
Breadth Requirement: History, Philosophy & Cultural Studies

PHILB31H3 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: PHIL200Y, PHIL203H
Breadth Requirement: History, Philosophy & Cultural Studies
PHLB3H4 Concepts of God
For many philosophers, "God" is a central concept because it signifies the fundamental cause of the universe, even Nature as a whole. Is God just this first cause, or also a benevolent agent? Can we have an idea of God? Can we prove the existence of God? Texts by Plato, Aristotle, Anselm, Hobbes, Pascal, Spinoza, Leibniz, Hume, Kant, Nietzsche, Gidd. Recommended preparation: PHLA1H03 or PHLA1H13
Breadth Requirement: History, Philosophy & Cultural Studies

PHLB3H4 Introduction to Early Modern Philosophy
This course covers the major figures and themes in seventeenth and eighteenth century philosophy. Descartes, Spinoza, Leibniz, Berkeley, and Hume will be covered. Metaphysical and epistemological themes will be emphasized.
Exclusion: PHL210Y
Breadth Requirement: History, Philosophy & Cultural Studies

PHLB3H4 Nature and Ethics in the Early Modern Era
17th century thinkers vigorously debated what constitutes the correct picture of the world (what are the basic entities, how things are caused, how minds and bodies relate) and its consequences for morality (our place in nature, possibility of free will, and of good and evil). Readings from Descartes to Kant.
Recommended preparation: PHLA1H03 or PHLA1H13
Breadth Requirement: History, Philosophy & Cultural Studies

PHLB5H4 Symbolic Logic
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 Requirement: Quantitative Reasoning

PHLB5H4 The Art of Thinking
A study of methods and techniques for developing effective reasoning and argumentation. This course aims to develop skill in identifying ambiguities, evaluating premises, constructing counter-examples, and reconstructing arguments. This course provides an important foundation for Philosophy students, while offering essential critical skills for all students, no matter what their Program.
Exclusion: PHL247H5, TRN210Y
Breadth Requirement: Arts, Literature & Language

PHLB5H4 Puzzles and Paradoxes
Philosophy often begins with a puzzle or paradox. Zeno once convincingly argued that motion was impossible, but people continue to move. The " liar paradox" seems to show that everything is both true and false, but that cannot be right. In this course, we will puzzle through these and related issues.
Breadth Requirement: History, Philosophy & Cultural Studies

PHLB6H4 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: PHL231H0
Breadth Requirement: History, Philosophy & Cultural Studies

PHLB7H4 Philosophy of Science
A study of philosophical questions raised by the natural and social sciences. Topics discussed may include: the nature of rationality and the role of values in science; the description of scientific methodology, the structure of scientific theory, and the question of how or in what sense science progresses.
Prerequisite: One full or half credit course in Philosophy or in one of the Sciences
Exclusion: HPS250H1, PHL235H1
Breadth Requirement: History, Philosophy & Cultural Studies

PHLB7H4 Metaphysics of Science: Emergence and Reduction in the Sciences
How are special science entities (trausl by chemistry, biology, psychology) related to lower-level, ultimately fundamental physical entities? Are higher-level entities ‘nothing over and above’ or rather somehow ‘emergent’ from lower-level entities? In this course we will identify and assess a variety of metaphysical options for understanding such intertheoretical relations.
Breadth Requirement: History, Philosophy & Cultural Studies

PHLB8H4 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, in language an innate biological feature of human being, how do we manage to refer to things, and what is meaning.
Breadth Requirement: History, Philosophy & Cultural Studies

PHLB8H4 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 do minds evolve and do animals have minds, what is thinking, what are feelings and emotions, and can machines have minds.
Exclusion: PHL240H1
Breadth Requirement: History, Philosophy & Cultural Studies

PHLB8H4 Foundations of Cognitive Science
A study of the hypotheses and theories that ground cognitive science. Fundamental questions include: what is a computational system and how can a physical system think and understand language? The course examines the functionalist theory of mind, the relationship between syntax and semantics, and the theory of interpretable formal systems.
Breadth Requirement: Social & Behavioral Sciences

PHLB9H4 Theories of Human Nature
An exploration of theories which provide answers to the question 'What is a human being?', questions 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.
PHILB99H3 Writing Philosophy
Philosophical writing emphasizes clear reasoning. Students will learn to analyze texts, to discern and assess argument structure, and to develop techniques for writing a clear, well-argued analysis of a subject matter. These key writing skills lie at the core of philosophical method and are also applicable across subject areas and disciplines. This course is strongly recommended for philosophy specialists and majors, open to philosophy minors, and open to all other students by permission of the instructor.
Prerequisite: PHILA10H3 or PHILA11H3
Breadth Requirement: History, Philosophy & Cultural Studies

PHILC38H3 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 5.0 full credits, including 1.5 full credits in Philosophy Breadth Requirement: Arts, Literature & Language

PHILC50H3 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 5.0 full credits, including PHILA11H3 and another 1.0 full credit in Philosophy. Any B-level PHIL Ethics course Exclusion: PHILB00H1, PHILB02H1
Recommended Preparation: Any B-level PHIL Ethics course
Breadth Requirement: History, Philosophy & Cultural Studies

PHILC60H3 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 5.0 full credits, including PHILA11H3 and another 1.0 full credit in Philosophy
Exclusion: PHILC00H3, PHILC75H1
Recommended Preparation: Any B-level PHIL Ethics course
Breadth Requirement: History, Philosophy & Cultural Studies

PHILC13H3 Topics in Philosophy and Feminism
Feminist philosophy includes both criticism of preeminent 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 5.0 full credits, including 1.5 full credits in Philosophy

PHILC26H3 Topics in the Theory of Knowledge
A follow up to PHILB26H3. This course will consider one or two epistemological topics in depth, with an emphasis on class discussion.
Prerequisite: Any 5.0 full credits, including 1.5 full credits in Philosophy
Breadth Requirement: History, Philosophy & Cultural Studies

PHILC32H3 Topics in Ancient Philosophy
This course focuses on the thought of Plato and Aristotle, with some attention to the pre-Socratics and Hellenistic thinkers, including ancient Egyptian and the Stoics.
Prerequisite: 1.5 full credits in philosophy, at least one course in the history of philosophy, or permission of the instructor.
Exclusions: PHILB00H1, PHILB02H1, PHILB04H1
Breadth Requirement: History, Philosophy & Cultural Studies

PHILC35H3 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 5.0 full credits, including 1.5 full credits in Philosophy of which at least 1.0 full credit must be at the B-level. Exclusion: PHILB00H1
Recommended Preparation: PHILB03H3
Breadth Requirement: History, Philosophy & Cultural Studies

PHILC36H3 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: PHILB03H3 or PHILB04H3 and 1.0 further credit in Philosophy. Exclusion: PHILB31H1
Breadth Requirement: History, Philosophy & Cultural Studies

PHILC37H3 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: 1.5 full credits in Philosophy, including at least one course in the history of philosophy, or permission of the instructor.
Exclusions: PHILB01H1
Recommended Preparation: PHILB03H3 or PHILB05H3 or PHILB34H3
Breadth Requirement: History, Philosophy & Cultural Studies

PHILC43H3 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 5.0 full credits, including 0.5 credit in logic, either PHILB05H3, PHILC31H3, (PHILC44H3) or MATC09H1, and 1.0 other full credit in Philosophy at the B- or C-level. Exclusion: PHILB25H1
Recommended Preparation: PHILB00H3 or PHILB05H3 or PHILC39H3
Breadth Requirement: History, Philosophy & Cultural Studies
PHL95H3 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: PHL95H3 or CSC106H3 or MAT244H3 or MAT48H3. Exclusion: MAT209H3, PHL346H3. Breadth Requirement: Quantitative Reasoning

PHL96H3 Philosophy of Mathematics
What are numbers? Are they physical? Mental? Created by humans? How do we know anything about numbers, if we never see or touch them? What is mathematical truth? Such questions should concern mathematics students interested in the foundations of mathematics, and philosophy students, as a rich source of philosophical puzzlement. Prerequisite: [Two MAT courses & one PHL course] or [One MAT course & [PHL85H3 & one other PHL course]] or permission of the instructor. Exclusion: PHL346H. Breadth Requirement: History, Philosophy & Cultural Studies

PHL96H3 Topics in Metaphysics
A follow up to PHL86H3. This course will consider one or two metaphysical topics in depth, with an emphasis on class discussion. Prerequisite: [PHL86H3 & 1.0 further credit in Philosophy] or permission of the instructor. Exclusion: PHL331H, PHL332H (UTM only). Breadth Requirement: History, Philosophy & Cultural Studies

PHL97H3 Topics in the Philosophy of Science
A follow up to PHL87H3. This course will consider one or two topics in the Philosophy of Science in depth, with an emphasis on class discussion. Prerequisite: [PHL87H3 & 1.0 further credit in Philosophy] or permission of the instructor. Breadth Requirement: History, Philosophy & Cultural Studies

PHL98H3 Seminar in Philosophy: Postcolonial Studies in Philosophy
A critical postcolonial examination of some aspects of western European philosophy. How has western philosophy been shaped by the colonization of other parts of the globe? We will examine modern western philosophy's ideals of rationality, universality, and progress in this light. Prerequisite: 2.0 full credits in Philosophy or permission of the instructor. Breadth Requirement: History, Philosophy & Cultural Studies

PHL96H3 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 theorems that there is an unbridgeable gulf between human minds and machine capabilities, Searle's Chinese Room thought experiment. Prerequisite: 2.0 full credits in PHL or permission of the instructor. Breadth Requirement: History, Philosophy & Cultural Studies

PHL98H3 Topics in Analytic Philosophy
Advanced topic(s) in Analytic Philosophy. Sample contemporary topics: realism/anti-realism, truth, interrelations among metaphysics, epistemology, philosophy of mind and of science. Prerequisite: Any 5 full credits, including 1.5 full credits in Philosophy. Breadth Requirement: History, Philosophy & Cultural Studies

PHL99H3 Topics in Contemporary Political Philosophy
An examination of some central philosophical problems of contemporary political philosophy. Prerequisite: Any 5 full credits, including 1.5 full credits in Philosophy of which at least 1.0 full credit must be at the B-level. Breadth Requirement: History, Philosophy & Cultural Studies

PHL99H3 Seminar in Philosophy: Justice
A discussion of the question "What is justice?" The question has been asked since the time of Plato, but seems to resist definitive answers. This course will examine debates about justice in recent political philosophy. Authors discussed may include: John Rawls, Robert Nozick, Bruce Ackerman, Michale Sandel, Iris Young. Prerequisite: Any 5 full credits, including 1.5 full credits in Philosophy of which at least 1.0 full credit must be at the B-level. Breadth Requirement: History, Philosophy & Cultural Studies

PHL99H3 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: 2.0 credits in PHL, including PHL81H3 or permission of the instructor. Breadth Requirement: History, Philosophy & Cultural Studies

PHL99H3 Prosseminar in Philosophy
This is an intensive seminar for students specializing and majoring in philosophy. The course will develop advanced philosophical skills by focusing on textual analysis, argumentative techniques, writing and oral presentation. The course also aims to foster a cohesive cohort among philosophy specialists and majors. 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 Philosophy Specialist and Majors. Prerequisite: 1.5 credits in Philosophy. Breadth Requirement: History, Philosophy & Cultural Studies

PHL99H3 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 full credits in Philosophy, including at least 2
Physical Sciences

The following Specialist Programs are offered by the Department of Physical and Environmental Sciences:

- Biological Chemistry
- Chemistry
- Environmental Biology
- Environmental Chemistry
- Environmental Geosciences
- Environmental Physics
- Environmental Science and Technology
- Physical and Mathematical Sciences
- Physics and Astrophysics

The following Major Programs are offered by the Department of Physical and Environmental Sciences:

- Biochemistry
- Chemistry
- Environmental Science
- Physical Sciences
- Physics and Astrophysics

The Department also offers a Minor Program in Environmental Science and the Minor Program in Astronomy and Astrophysics. For more information on these programs, see the appropriate section of this Calendar.

Students are strongly advised to take the courses in the sequence recommended by their program(s) of choice. Irreconcilable timetable differences may arise if courses are delayed to later years. Students should pay careful attention to all pre- and co-requisite courses to
ensure that they are eligible to take their courses at the proper time. Some C- and D-level courses are offered in alternate years. Students are advised to consult with their Program Supervisor(s) to find out when particular courses will be available.

Science Engagement Courses
For science experiential learning through community outreach, classroom-in-reach and team research, please see the Science Engagement section of this Calendar.

EARLY TEACHER PROJECT Coordinator: C.C. Dyer (416-287-7206). Email: dyer@utsc.utoronto.ca

The Early Teacher Project (ETP) in Physical Sciences is being phased out and replaced by the Concurrent Teacher Education Program (CTEP) in the mathematical and physical sciences. Every effort will be made to ensure that students who first enrolled at U of T Scarborough in 2006/2007 or earlier and who are admitted to the Early Teacher Project are able to complete it as described in the 2006/2007 Calendar. For more information on CTEP, see the Concurrent Teacher Education section of this Calendar.

CO-OPERATIVE PROGRAM IN PHYSICAL SCIENCES
Supervisor of Studies: S. Dalili (416-287-7215) Email: sdalili@utsc.utoronto.ca

Co-op Contact: asiuscoop@utsc.utoronto.ca

The Co-operative Program in Physical Sciences allows students to combine their chosen academic program with an integrated and complementary work experience. Students are required to complete any one of the Specialist Programs offered by the Department of Physical and Environmental Sciences or the Department of Computer and Mathematical Sciences, except those in Computer Science and the Joint Specialist Program in Environmental Science and Technology, or an approved combination of two Major Programs within their 20-credit degree program. They will also complete three work terms of four months each, as well as a specially designed series of enhancement seminars. The overall purpose of the Co-op Program is to provide for students an educational milieu that will allow them to develop as highly qualified scientists, with excellent experience in both the academic and workplace environments.

For information on fees, work terms, and studying in the program, please see the Co-operative Programs section of this Calendar.

Note: The Co-op in Computer Science is not part of the Physical Sciences Co-op. For more information on it, see the Computer Science section of this Calendar.

Eligible Programs of Study for Co-op:
Students may take any of the Specialist Programs offered in the Department of Physical and Environmental Sciences or the Department of Computer and Mathematical Sciences, except those in Computer Science and the Joint Specialist Program in Environmental Science and Technology. Currently, these Programs are:
- Biological Chemistry
- Chemistry
- Environmental Biology
- Environmental Chemistry
- Environmental Geosciences
- Environmental Physics
- Mathematics
- Mathematics and Its Applications (with streams of Statistics, Computational Physical Sciences and Mathematics Teaching)
- Physical and Mathematical Sciences
- Physics and Astrophysics
- Quantitative Analysis

Alternatively, with the approval of the Co-op Supervisor of Studies, students may select one of the Major Programs offered in the Department of Physical and Environmental Sciences or the Department of Computer and Mathematical Sciences, except for Computer Science, as their primary major, and take this in combination with a second Major Program thus fulfilling the requirements for the 20 credit degree. Currently, the eligible Major Programs are:
- Biochemistry
- Chemistry
- Environmental Science
- Mathematics
- Physics and Astrophysics
- Physical Sciences
- Statistics

The second major may be from those offered in the Department of Physical and Environmental Sciences, or from another Department. All double-major combinations must be discussed with and approved by the Supervisor of Studies. The second major may be in Computer Science. Students must meet all the requirements for admission to and continuation in this or any other limited enrolment...
Major Program.

For academic program descriptions and requirements, please refer to the sections of the Calendar related to each discipline.

All program registrations must be approved and confirmed each year by the Supervisor of the Co-op Program and the Supervisor of the particular program(s).

Students are individually responsible for ensuring that they have correctly completed all program and degree requirements for graduation.

Program Admission

Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this Calendar.

Current U of T Scarborough students: Application procedures can be found at the Registrar’s Office website at: www.utoronto.ca/subjectprog. The minimum qualifications for entry are:

1. Physics & Astrophysics (Major): 4.0 full credits including MATH136H3, MATH208H3, MATH237H3, PHY145H5 & PHY213H3 plus a cumulative GPA of at least 2.5

2. Biochemistry (Major): 4.0 full credits including BIOA01H3, BIOA02H3, CHMA11H3, CHMA11H1 plus a cumulative GPA of at least 2.5

3. Biological Chemistry (Specialist): 4.0 full credits including BIOA01H3, BIOA02H3, CHMA11H3, CHMA11H1, MATH237H3, MATH255H3 or MATH263H3, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

4. Chemistry (Major): 4.0 full credits including CHMA11H3, CHMA11H1, MATH263H3, MATH255H3 or MATH263H3, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

5. Chemistry (Specialist): 4.0 full credits including CHMA11H3, CHMA11H1, MATH263H3, MATH255H3 or MATH263H3, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

6. Environmental Biology (Specialist): 4.5 full credits as follows: BIOA01H3, BIOA02H3, CHMA11H3, CHMA11H1, EES201H3, EES201H5, MATH263H3 or MATH263H3, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

7. Environmental Chemistry (Specialist): 4.5 full credits as follows: BIOA01H3, BIOA02H3, CHMA11H3, CHMA11H1, EES201H3, EES201H5, MATH263H3, MATH255H3 or MATH263H3, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

8. Environmental Geoscience (Specialist): 4.5 full credits as follows: BIOA01H3, BIOA02H3, CHMA11H3, CHMA11H1, EES201H3, EES201H5, MATH263H3, MATH255H3 or MATH263H3, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

9. Environmental Physics (Specialist): 4.5 full credits as follows: CHMA10H3, CHMA11H3, EES201H3, EES201H5, MATH263H3, MATH255H3 or MATH263H3, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

10. Environmental Science (Major): 4.0 full credits including BIOA01H3, BIOA02H3, EES201H3 plus a cumulative GPA of at least 2.5

11. Mathematics (Major): 4.0 full credits including CSCA48H3 or PSCG57H3, MATH237H3, MATH240H3 & MATH243H3 plus a cumulative GPA of at least 2.5

12. Mathematics (Specialist): 4.0 full credits including CSCA48H3, MATH237H3, MATH240H3, MATH243H3, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

13. Mathematics & Its Applications (Specialist): 4.0 full credits including CSCA48H3, MATH237H3, MATH240H3 & MATH243H3 plus a cumulative GPA of at least 2.5 The Computational Physical Sciences stream also requires ASTA01H3, ASTA02H3, PHYA108H3 & PHYA213H3

14. Physical Sciences (Major): 4.0 full credits as follows: CHMA10H3, CHMA11H3, MATH263H3, MATH255H3 or MATH263H3, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

15. Physical & Mathematical Sciences (Specialist): 4.0 full credits including MATH237H3, MATH240H3 & MATH293H3, MATH293H3, MATH293H5, MATH293H6, MATH293H7, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

16. Physics & Astrophysics (Specialist): 4.0 full credits including MATH237H3, MATH240H3, MATH263H3 or MATH263H5, PHYA108H3 & PHYA213H3 plus a cumulative GPA of at least 2.5

17. Quantitative Analysis (Specialist): 4.0 full credits including CSCA48H3, CSCA48H5, CSCA65H3, MATH237H3, MATH240H3 & MATH243H3 plus a cumulative GPA of at least 2.5

18. Statistics (Major): 4.0 full credits including CSCA48H3, MATH237H3, MATH240H3 & MATH243H3 plus a cumulative GPA of at least 2.5

Work Terms

To be eligible for their first work term, students must have completed at least 7.0 full credits. Students must also successfully
complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term.

Students will work in areas closely related as possible to their academic Programs. If a student is taking a double-major Program, and if the second major is in Computer Science or in another Department, the work term will be primarily associated with the primary Physical Sciences major. Students are not permitted to complete more than one summer work term.

Programs and Courses

The Programs offered by the Department of Physical and Environmental Sciences emphasize co-ordination among traditional subject areas. The aim is to provide students with an integrated view of science. The Concurrent Teacher Education Program (CTEP) and the Co-operative Programs offered in the Department build on this interdisciplinary theme. Note: Corequisites and prerequisites must be carefully checked; for example, MATB41H3 is a corequisite for PHYB21H3.

The Department of Physical and Environmental Sciences offers interdisciplinary courses under the PSC designation. They are designed for students with a broad interest in Physical Science. Many of the Specialist and the Major Programs offered by the disciplines of the Department of Physical and Environmental Sciences require one or more PSC courses.

The Department offers an interdisciplinary Specialist Program in the Physical and Mathematical Sciences. This Program provides an excellent opportunity to combine studies from a number of disciplines.

**SPECIALIST PROGRAM IN NATURAL SCIENCES**

*Supervisor of Studies: N. Cheredeleva (416-287-7256) Email: n.cheredeleva@utoronto.ca*

This program has been withdrawn from the curriculum. Every effort will be made to ensure that degree students who first enrolled at UTSC prior to the 2010 Summer Session will be able to complete it. Students should refer to the 2009/2010 UTSC Calendar.

**MAJOR PROGRAM IN PHYSICAL SCIENCES**

*Supervisor: G. Lorincz (416-287-7248) Email: lorincz@utsc.utoronto.ca*

See Physics and Astrophysics section of this Calendar.

**SPECIALIST PROGRAM IN PHYSICAL AND MATHEMATICAL SCIENCES**

*Supervisor: J. Lowman (416-284-4580) Email: lowman@utsc.utoronto.ca*.

See Physics and Astrophysics section of this Calendar.

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**PSCB87H3 Introduction to Scientific Computing**

This course is an introduction to the use of computers in the physical and biological sciences emphasizing the choice and design of algorithms and their implementation in a high-level computer language for the solution of problems arising in the physical and biological sciences. Topics will include elementary numerical analysis, such as numerical integration, mathematical modeling of physical systems, data fitting and interpolation, intended primarily for physical and biological science students who do not plan to pursue any of the Programs in computer science or cognitive science.

**Corequisites:** [MATA36H3 or MATA37H3] or [MATA35H3 with permission of the instructor] & one A-level science course

**Breadth Requirement:** Quantitative Reasoning

**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, methodological and pseudo-sciences; 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.

**Prerequisites:** 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 Requirement:** Social & Behavioural Sciences

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**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.

**Note:** Where PSCD02H3 is a Program requirement, it may be replaced by PHY342H with the approval of the Program supervisor.

**Prerequisites:** Completion of at least 3.5 credits of a Physical Sciences program

**Corequisite:** Continued participation in one of the Physical Sciences programs.

**Exclusion:** PHY342H

**Breadth Requirement:** Natural Sciences
Physics and Astrophysics

Faculty List
A. Griffin, M.Sc. (British Columbia), Ph.D. (Cornell), Professor Emeritus
A. Jacobs, B.A.Sc., B.Sc. (Waterloo), Ph.D. (Illinois), Professor Emeritus
J.D. King, B.A. (Toronto), Ph.D. (Saskatchewan), Professor Emeritus
P.J. O’Donnell, B.Sc., Ph.D. (Glasgow), Professor Emeritus
J.M. Perz, B.A.Sc., M.A.Sc. (Toronto), Ph.D. (Cantab), Professor Emeritus
P. Artymowicz, M.Sc. (Warsaw University), Ph.D. (N. Copernicus Astron. Center, Polish Academy of Sciences), Professor
C.C. Dyne, B.Sc. (Bishop’s), M.Sc., Ph.D. (Toronto), Professor
J.P. Lowman, B.Sc. (Toronto), M.Sc., Ph.D. (York, Canada), Associate Professor
G. Lortie, B.Sc., M.Sc. (Toronto), Senior Lecturer
S. Taweji, B.Sc., M.Sc. (Al-Mumaniyah), Ph.D. (Trieste, Italy), Senior Lecturer
J. Boyer Carpenter, B.Sc. (L’Asile, Bogota), M.Sc., Ph.D. (Toronto), Lecturer

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, and 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 Major Program in Physics and Astrophysics, the Major Program in Physical Sciences, the Specialist Program in Environmental Physics, or the Specialist Program in Computer Science and Physical Sciences (Computer Science and Physics streams).

Notes: PHYS1H3 and PHYS11H3 both require MAT137H3 as a prerequisite. Any one of MAT35H3, MAT22H3, or MAT37H3 is a suitable prerequisite for PHYS21H3 and PHYS22H3. However, some higher level MAT courses have MAT37H3 as a prerequisite. No Physics and Astrophysics programs require MAT37H3 explicitly, so students should check to see if there is a prerequisite of MAT37H3 for MAT courses required outside the Physics and Astrophysics program requirements. Please note that prerequisites and corequisites for PHY, PSC, and AST courses will be enforced.

Science Engagement Courses
For science experiential learning through community outreach, classroom in-reach and team research, please see the Science Engagement section of this Calendar.
SPECIALIST PROGRAM IN ENVIRONMENTAL PHYSICS (SCIENCE)
See the Environmental Science section of this Calendar for program requirements.

SPECIALIST PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE) - formerly Physics and Its Applications (with streams)
Supervisor: J. Lowman (416-284-4500) Email: lowman@ualberta.ca

Program Requirements: The Program requires 13.0 full credits as follows:

**First Year**
- PHYA1903 Introduction to Physics I
- PHYA21H3 Introduction to Physics II
- MATA20H3 Calculus I for Biological and Physical Sciences
- MATA22H3 Linear Algebra I
- [MATA36H3 Calculus II for Physical Sciences or]
- MATA37H3 Calculus II for Mathematical Sciences]

**Second and Later Years**
- ASTRB2H3 Astrophysics of Stars, Galaxies and the Universe
- PHYB14H3 Intermediate Physics Laboratory I
- PHYB30H3 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
- PHYC51H3 Quantum Mechanics I
- PHYC11H3 Intermediate Physics Laboratory II
- PHYC52H3 Classical Mechanics
- PSICB5H3 Introduction to Scientific Computing
- MATC35H3 Complex Variables
- MATC46H3 Differential Equations II

**Fourth Year**
Three of:
- ASTC25H3 Astrophysics of Planetary Systems
- PHYD37H3 Introduction to Fluid Mechanics
- PHYD35H3 Introduction to Nonlinear Systems and Chaos
- PHY42H3 Basic Statistical Mechanics
- PHY45H3 Quantum Mechanics II
- PHY46H3 Relativity Theory I
- PHY46H4 Relativity Theory II
- PHY48H7 Condensed Matter Physics
- PHY49H1 Introduction to High Energy Physics
- PHY49H1 Current Interpretations of Quantum Mechanics
- PHY49H1 Advanced Atmospheric Physics
- PHY49H1 Geophysical Imaging I
- PHY49H1 Geophysical Imaging II
- PHY49H1 Experimental Global Geophysics
- PHY49H1 Experimental Applied Geophysics

Out of:
- PHYD20H3 Physics Research Project
- PHYD11H3 Computational Physics Project
- PHYD22H3 Supervised Reading in Physics
- ASTD20H3 Astrophysics Research Project
- ASTD20H3 Supervised Reading in Astrophysics
- PSID10H3 Physical Sciences Project
One additional 0.5 credit from a course in AST or PHY at the C-, D-, 300-, or 400-level, or
PSCD002H3 Current Questions in Mathematics and Science

SPECIALIST PROGRAM IN PHYSICAL AND MATHEMATICAL SCIENCES (SCIENCE)
Supervisor: J. Lowman (416-283-4894) Email: lowman@rice.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.

Total Credits: 15.5

Program Requirements:

First Year:
- PHYA1B0H3 Introduction to Physics I A
- PHYA2B0H3 Introduction to Physics IIA
- CHMA10H3 Introductory Chemistry I: Structure and Bonding
- CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
- MATA30H3 Calculus I for Biological and Physical Sciences
- MATA23H3 Linear Algebra I
- [MATA36H3 Calculus II for Physical Sciences or MATA27H3 Calculus II for Mathematical Sciences]

Second Year
- PHYB10H3 Intermediate Physics Laboratory I
- PHYS15H3 Introduction to Quantum Physics
- PHYS21H3 Electricity and Magnetism
- PHYS22H3 Thermal 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

Second or Third Year
- PHYB50H3 Mechanics: From Oscillations to Chaos
- ASTRB20H3 Astrophysics of Stars, Galaxies and the Universe
- CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
- CHMB21H3 Chemical Structure and Spectroscopy
- MATB61H3 Linear Programming
- PSCB57H3 Introduction to Scientific Computing
- CSCB58H3 Computer Organization
- STAT57H3 An Introduction to Statistics

Third or Fourth Year
A total of 4.0 credits from:
- ASTC25H3 Astrophysics of Planetary Systems
- MATC34H3 Complex Variables
- PHYC46H3 Differential Equations II
- PHYC50H3 Electromagnetic Theory
- PHYC56H3 Quantum Mechanics I
- PHYC11H3 Intermediate Physics Laboratory II
- PHYC54H3 Classical Mechanics
- PHYD37H3 Introduction to Fluid Mechanics
- PHYD30H3 Introduction to Nonlinear Systems and Chaos
- CSCC39H3 Numerical Methods or CSCC59H3 Numerical Algebra and Optimization and CSCC51H3 Numerical Approximation, Integration and Ordinary Differential Equations]
- PSCD02H3 Current Questions in Mathematics and Science
- PHYD61H3 Physics Research Project or
PHYY11H3 Computational Physics Project or
PHYY22H3 Supervised Reading in Physics or
ASTD81H3 Astrophysics Research Project or
ASTD92H3 Supervised Reading in Astrophysics or
PSCD10H3 Physical Sciences Project

MAJOR PROGRAM IN PHYSICAL SCIENCES (SCIENCE)
Supervisor: G. Lorincz (416-287-7248) Email: lorincz@utsc.utoronto.ca
The Major Program in Physical Sciences is intended for students desiring a general background in the physical sciences (with
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: The Program requires 8 full credits as follows:
First Year:
PHYA10H3 Introduction to Physics IA
PHYA21H3 Introduction to Physics IIA
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
MAT3A0H3 Calculus I for Biological and Physical Sciences
MAT2A2H3 Linear Algebra I
MAT3A4H3 Calculus II for Physical Sciences or
MAT3A7H3 Calculus II for Mathematical Sciences
Second or Third Year
Five of:
PHYB10H3 Intermediate Physics Laboratory I
PHYB21H3 Electricity and Magnetism
PHYB22H3 Thermal Physics
PHYB34H3 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
ASTB22H3 Astrophysics of Stars, Galaxies and the Universe
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
CHMB21H3 Chemical Structure and Spectroscopy
STAR22H3 Statistics I
Third or Fourth Year
Four of:
ASTC25H3 Astrophysics of Planetary Systems
MATC34H3 Complex Variables
MATC36H3 Differential Equations II
PHYC30H3 Electromagnetic Theory
PHYC36H3 Quantum Mechanics I
PHYC31H3 Intermediate Physics Laboratory II
PHYC34H3 Classical Mechanics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos
PSCD30H3 Introduction to Scientific Computing
[PHYY01H3 Physics Research Project or PHYY11H3 Computational Physics Project or PHYY22H3 Supervised Reading in
Physics or ASTD81H3 Astrophysics Research Project or ASTD92H3 Supervised Reading in Astrophysics or PSCHED3H3 Physical
Sciences Project]
MAJOR PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE) - formerly Astrophysics & Physics
Supervisor: C. Dyer (416-287-7206) Email: dyer@astrophysics.ca

Program Requirements:
The Program requires 8.5 credits as follows:
First Year
PHYA10H3 Introduction to Physics IA
PHYS21H3 Introduction to Physics IA
MATH30H3 Calculus I for Biological and Physical Sciences
MATH23H3 Linear Algebra I
[MATH25H3 Calculus II for Physical Sciences or
MATH27H3 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
Three of:
PHYB50H3 Introduction to Quantum Physics
PHYB51H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
A total of 2.0 credits from:
ASTC23H3 Astrophysics of Planetary Systems
MATH34H3 Complex Variables
MATH46H3 Differential Equations II
PHYC50H3 Electromagnetic Theory
PHYC51H3 Quantum Mechanics I
PHYC52H3 Intermediate Physics Laboratory II
PHYC54H3 Classical Mechanics
PHYD37H3 Introduction to Fluid Mechanics
PHYD39H3 Nonlinear Systems and Chaos
PSCD03H3 Introduction to Scientific Computing
PSCD06H3 Current Questions in Mathematics and Science
[PHYD01H3 Physics Research Project or PHYD11H3 Computational Physics Project or PHYD20H3 Supervised Reading in Physics or ASTD00H3 Astrophysics Research Project or ASTD02H3 Supervised Reading in Astrophysics or PSCH10H3 Physical Sciences Project]

MINOR PROGRAM IN ASTRONOMY AND ASTROPHYSICS (SCIENCE)
Supervisor: J. Beyer Carpenteurs (416-287-7327) Email: jbeyer@astrophysics.ca
See the Astronomy section of this Calendar.

PHYA10H3 Introduction to Physics IA
The course is intended for students in physical, environmental and mathematical sciences. The core theme in this course is energy and energy conservation as a main concept of classical physics and its applications to macroscopic systems in one and three dimensions. This includes mechanical systems, fluid mechanics and energy in classical waves and oscillatory motion. Geometrical optics and some applications of modern optics, such as x-ray, will also be studied.
Prerequisite: [Physics 12U, SPH4U (Grade 12 Physics) & Calculus and Vectors (MCV4U) & Advanced Functions (MHF4U)] or (PHYA01H3)
Corequisite: MATH30H3
Exclusion: PHYA11H3, PHYA13H3, PHYA35Y, PHY35H1, PHYH10Y, PHY31R3
Breadth Requirement: Natural Sciences

PHYA11H3 Introduction to Physics IB
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 science.

Prerequisite: Grade 12 Advanced Functions (MHF4U)
Corequisite: MAT20H3 or MAT23H3 Grade 12 Physics (SPH4U)
Exclusion: PHY1003H, PHY113H, PHY135Y, PHY151H, (PHY110Y), (PHY138Y)
Recommended Preparation: Grade 12 Physics (SPH4U)
Breadth Requirement: Natural Sciences

**PHY2A1H3 Introduction to Physics II A**

This second physics course is intended for students in physical and mathematical sciences programs. Topics include electromagnetism and special relativity.

Prerequisite: PHY1A1H3, [MAT20H3 or MAT21H3]
Corequisite: MAT23H3 or MAT26H3 or MAT27H3. Note: MAT23H3 does not allow for any future programs in science.
Exclusion: PHY2A2H3, (PHY110Y), PHY132H, PHY135Y, (PHY138Y), PHY152H
Breadth Requirement: Natural Sciences

**PHY2A2H3 Introduction to Physics II B**

The course covers the main concepts of Thermodynamics, Electricity and Magnetism and nuclear radiation. It provides basic knowledge of these topics with particular emphasis on their applications in life and environmental sciences. It also covers some of the applications of modern physics such as Atomic physics and nuclear radiation.

Prerequisite: [PHY1A10H3 or PHY1H11H3 or (PHY1A0H3) and [MAT20H3 or MAT21H3]
Corequisite: (MAT2A1H3) or MAT29H3 or MAT46H3 or MAT37H3. Note: MAT21H3 & MAT37H3 do not allow for any future programs in science.
Exclusion: PHY2A2H3, (PHY110Y), PHY132H, PHY135Y, (PHY138Y), PHY152H
Breadth Requirement: Natural Sciences

**PHY2B1H3 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
Enrollment Limits: 50
Breadth Requirement: Natural Sciences

**PHY2B1H3 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: PHY1B2H3, [MAT16H3 or MAT37H3]
Corequisite: MAT24H3
Exclusion: (PHY1B2H3)
Enrollment Limits: 25
Breadth Requirement: Natural Sciences

**PHYB2H3 Electricity and Magnetism**

A first course at the intermediate level in electricity and magnetism. The course provides an in-depth study of electromagnetism and magnetostrictive effects. Topics examined include Coulomb's Law, Gauss's Law, electrostatic energy, conductors, Ampere's Law, magnetic and electric energy, Lorentz Force, Faraday's Law and Maxwell's equations.

Prerequisite: PHY2A1H3 & MAT24H3
Corequisite: MAT3B42H3
Exclusion: PHY24H3, PHY25H
Breadth Requirement: Natural Sciences

**PHYB52H3 Thermal Physics**

The course covers the main topics of thermodynamics, with a focus on the statistical nature of matter, and applications to the study of phase transitions. Topics include entropy, absolute temperature, the canonical distribution, and the laws of thermodynamics. Specific emphasis is placed on the statistical interpretation of the laws of thermodynamics, particularly in the context of the Boltzmann distribution and its application to the study of phase transitions.

Prerequisite: [PHY2A1H3 or PHY132H or (PHY138Y)] or PHY152H and MATB42H3
Corequisite: MATB42H3
Exclusion: PHY22H
Breadth Requirement: Natural Sciences

**PHYB54H3 Mechanics: From Oscillations to Chaos**

The course introduces the basic concepts of mechanics and the mathematical tools necessary to solve problems in mechanics. The course includes analytical and numerical methods for solving differential equations and the study of chaotic systems. Specific topics include linear, nonlinear, and chaotic behavior of classical systems such as oscillators, rotating bodies, and central force systems. The course also covers analytical and numerical methods for solving differential equations and the study of chaotic systems. Specific topics include linear, nonlinear, and chaotic behavior of classical systems such as oscillators, rotating bodies, and central force systems. The course also covers analytical and numerical methods for solving differential equations and the study of chaotic systems. Specific topics include linear, nonlinear, and chaotic behavior of classical systems such as oscillators, rotating bodies, and central force systems.

Prerequisite: PHYA2H1, MATB42H3, MATB44H3
Corequisite: MATB42H3, Exclusion: PHY254
Breadth Requirement: Natural Sciences

**PHYB56H3 Introduction to Quantum Physics**

The course introduces the basic concepts of quantum physics and the quantum mechanics of the wave function. The Schrödinger's equation will be introduced with some applications in one dimension. Topics include the Born rule, wave packet theory, and the scattering of particles in one dimension.

Prerequisite: PHYA2H1, MATA38H3
Corequisite: MATB42H3, Exclusion: PHY256
Breadth Requirement: 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
Students must obtain consent of the course supervisor to enrol in this course.

Prerequisite: 14.0 credits, cumulative GPA of at least 2.5, and permission from the coordinator.
Exclusion: PHY479H
Breadth Requirement: Natural Sciences

PHYD11H3 Computational Physics Project
Introduces students to current research topics in computational physics under supervision of a professional faculty member. Students undertake independent project involving computational Physics. Evaluation by the supervising faculty member in consultation with the course supervisor. Students must obtain the consent of the course supervisor to enrol in this course.
Corequisite: 14.0 credits, cumulative GPA of at least 2.5, and permission from the coordinator.
Exclusion: PHY479H
Breadth Requirement: Natural Sciences

PHYD37H3 Introduction to Fluid Mechanics
Description and understanding of the dynamics of fluid systems. Topics covered include the idea of continuum, total derivative, equations for mass and energy conservation, Navier-Stokes equations; introduces tensor notation; stream function; streamlines, trajectory, rate of strain, vorticity; viscous fluids, non-Newtonian rheology; Bernoulli’s equation, channel flow, turbulence, Reynolds number.
Prerequisite: PHYC34H3
Exclusion: PHY454H
Breadth Requirement: Natural Sciences

PHYD52H3 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 Requirement: Natural Sciences

PHYD72H3 Supervised Reading in Physics
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 credit 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: PHY372H, PHY472H
Breadth Requirement: Natural Sciences
Political Science

Faculty List

E.G. Andrew, B.A. (British Columbia), Ph.D. (London), Professor Emeritus
S.J. Colman, M.A. (Oxon.), Professor Emeritus
R. Maczynski, B.A. (E.D. New Brunswick), M.A. (Oxon.), Ph.D. (Harvard), Professor Emeritus
A. Rubinfeld, B.A. (McGill), M.A., Ph.D. (Chicago), Professor Emeritus
G.S. Skagstad, B.A., M.A. (Alberta), Ph.D. (British Columbia), Professor Emeritus
S. Solomon, B.A. (McGill), M.A., Ph.D. (Columbia), Professor Emeritus
J. Tuchman, B.A., M.A., Ph.D. (Toronto), Professor
M. Hoffmann, R.S. (Michigan Technological University), Ph.D. (George Washington University), Associate Professor
P. Kingston, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor
M.L. Koh, B.A. (Williams College), M.A., Ph.D. (Cornell University), Associate Professor
C. Nordfeld, B.A., M.A. (London), Ph.D. (Geneva), Associate Professor
L. Way, B.A. (Harvard), M.A., Ph.D. (UC Berkeley), Associate Professor
C. Cochrane, B.A. (St. Thomas), M.A. (McGill), Assistant Professor
H.M. Gibbs, B.A. (University of Huron College, UWO), M.A., Ph.D. (McMaster), Assistant Professor
R. Reina, Ph.D. (New Mexico), Assistant Professor
W. Skrobalski, M.A. (British Columbia), Ph.D. (Toronto), Assistant Professor
P. Triandafyllopoulos, B.A. (Toronto), M.A., Ph.D. (New School NY), Assistant Professor
R. Hur, B.A. (Toronto), M.A., Ph.D. (Cornell), Lecturer
R. Levine, B.A. (Rochester), Ph.D. (Duke), Lecturer

Discipline Representative: C. Nordfeld

Undergraduate Counsellor: J. Roozetwisseng Email: social-sciences-counsellor@utsc.utoronto.ca

Contemporary states and societies are bent by political crisis and change. Since the end of the Cold War and in the post-WWII period, international relations are unstable and unpredictable and a new world order has yet to be constructed. The sovereignty of nation-states and their capacity to implement national policies of economic and social welfare are being transformed by transnational forces in the new global economy. Religious and ethnic nationalism divides many countries, and even in historically stable liberal democracies, political mobilization by race, ethnicity, language, and gender challenge the legitimacy of established cultural and political relationships. Potentially catastrophic problems, such as exploiting populations, proliferation of nuclear weapons, and environmental degradation, threaten the ability of national governments and international organizations to secure human survival. Dealing with these problems is a fundamental necessity for citizens and their governments. In its teaching, research, and community service, the discipline of Political Science seeks to help in meeting this need.

Political Science is the study of enduring issues of power and authority, citizenship and governance, justice and legitimacy, and patterns of conflict and cooperation that arise around these issues: from ancient to modern times. The field of Political Science is divided into the following sub-fields: Canadian Politics, Comparative Politics (Developing and Developed Countries), International Relations and Political Theory. In the area of Canadian Politics, students learn about the political-institutional foundations, political processes and public policies of Canada. Courses in comparative politics deal with the 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 is devoted to studying the foreign policies of particular nation-states and the patterns of conflict and co-operation among states. Political theory explores 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.

Guidelines for 1st year course selection

Students who intend to complete the Political Science or Public Policy programs should include the following in their 1st year course selection: Political Science: One full credit at the A-level in Political Science. Public Policy: SOCA201H, SOCA202H & one of the Computer Science courses listed in Requirement 1 of the program.

SPECIALIST PROGRAM IN POLITICAL SCIENCE (ARTS)

Program Requirements

Students must complete at least 12.0 full credits in Political Science including:

1. 1.0 full credit from among the A-level political science courses (no more than 1.0 full credit at the A-level may be counted towards the program requirements).
MAJOR PROGRAM IN POLITICAL SCIENCE (ARTS)

Program Requirements
Students must complete at least seven full credits in Political Science as follows:

1. One full credit from among the A-level political science offerings (no more than one full credit at the A-level may be counted towards the program requirements).

2. POLB786H3 Classic Texts in Political Theory I
and
POLB711H3 Classic Texts in Political Theory II

3. POLB508H3 Canada's Political Institutions
and
POLB526H3 Canadian Politics: Connecting Citizens and Governments

4. At least four of the following (two full credits):
   POLB801H3 Introduction to International Relations
   POLB811H3 Global Issues and Governance
   POLB911H3 Comparative Development in Political Perspective
   POLB912H3 Comparative Politics: Revolution, Democracy and Authoritarianism in Modern Europe
   POLB921H3 Comparative Politics: Ethnic Conflict and Democratization in Europe After the Cold War

5. POLC761H3 Political Analysis I

6. 6.5 full credits in political science at the C- and/or D-level, of which at least 1.0 must be at the D-level

MINOR PROGRAM IN POLITICAL SCIENCE (ARTS)

Program Requirements
The Program requires the completion of at least four full credits above the A-level in Political Science. At least two of these must be at the C- or D-level. There are two options: either the four full credits must be taken from any one of the fields listed below (e.g. Canadian Government), or two credits must be taken from each of any two of these fields (e.g. two credits in International Relations, two credits in Comparative Politics).


MAJOR PROGRAM IN PUBLIC POLICY (ARTS)
The Major Program in Public Policy equips students with the analytical and methodological skills 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 pay careful attention to the prerequisites for higher level courses.

Course requirements:

Students must complete 7.0 full credits from the following list:

1. SOC401H3 Introduction to Sociology I
SOC402H3 Introduction to Sociology II

2. 1.5 credits in Research Methods. At least 0.5 credit must be Quantitative Methods and at least 0.5 must be at the C- or D-level:
ANRC4F0H3 Quantitative Methods in Anthropology
ECMB110H3 Quantitative Methods in Economics I
ECMB210H3 Quantitative Methods in Economics II
ECMB209Y3 Quantitative Methods in Economics
ECMC119H3 Introduction to Regression Analysis
GGRA309H3 Geographic Information Systems (GIS) and Empirical Reasoning
(GGRG470H3) Introduction to Research in Human Geography
POLB113H3 Statistics for Politics and Public Policy
PSYB270H3 Data Analysis in Psychology
SOCB305H3 Logic of Social Inquiry
SOCB604H3 Social Statistics
SOCD231H3 Practicum in Qualitative Research Methods
SOCD231H3 Practicum in Quantitative Research Methods
STAB223H1 Statistics I

3. 0.5 credit in Social Theory
POLC780H3 Political Analysis I

4. POLS120H3 Canada's Political Institutions
POLB120H3 Canadian Politics: Connecting Citizens and Governments

5. 0.5 credit from among the following:
CTIB201H3 Canadian Cities and Planning
ECMB350H3 Public Decision Making
ECMB360H3 Economic Aspects of Public Policy

6. POLC660H3 Public Policy-Making
PLOC760H3 Public Policy in Canada

7. 1.0 credit at the C- or D-level from among the following list:
ANRC230H3 Political Anthropology
ANRC213H3 Medical Anthropology: Illness and Healing in Cultural Perspective
ANRC621H3 Medical Anthropology II: Biological and Demographic Perspectives
ECMB310H3 Economics of the Public Sector: Taxation
ECMB320H3 Economics of the Public Sector: Expenditures
ECMB380H3 The Economics of Canadian Public Policy
ECMB510H3 Labour Economics I
ECMB520H3 Labour Economics II
GGRG440H3 Urban Residential Geography
GGRG430H3 Urban Political Geography
(GGRG430H1) Urban Transportation Policy Analysis
(GGRG420H3) Issues in Rural Development
GGRG431H3 The Toronto Region
(GGRG462H1) Countryside Conservation
HIDS403H3 Immigrants and Race Relations in Canadian History
HIDS463H3 Selected Topics in Canadian Women's History
HUTC303H3 Politics of Canadian Health Studies
MGEC210H3 Public Management
PLOC530H3 Canadian Environmental Politics
PLOC540H3 Intergovernmental Relations in Canada
PLOC570H3 Intergovernmental Relations and Public Policy
POLC88H3 The New International Agenda
POLD50H3 Political Interests, Political Identity, and Public Policy
POLD71H3 Canadian Political Ideas I
POLD72H3 Canadian Political Ideas II
POLD78H3 Political Analysis II
POLD88H3 Exploring the New International Agenda
Socc09H3 Sociology of Gender and Work
Socc25H3 Ethnicity, Race and Migration
Socc26H3 Sociology of Urban Growth
Socc37H3 Environment and Society
Vpac25H3 Cultural Policy
8. A D-level course in Public Policy: Any of POLD50H3, POLD51H3, POLD64H3 or POLD98H3

Students are encouraged to take ENGA10H3 (Introduction to Twentieth-Century Literature and Film: 1890 to World War II), ENGA11H3 (Introduction to Twentieth-Century Literature and Film: 1945 to Today) and ENGB15H3 (Critical Writing about Literature).

*Many of these courses have prerequisites, 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: askkoop@utsc.utoronto.ca

The Co-operative Program in Public Policy is a work-study program which combines academic studies in various disciplines with work terms in public enterprises, the private sector, and non-governmental organizations. Two work terms, each of four months duration, must be completed along with the academic program. An optional, third work term may be completed with the permission of the Co-op Co-ordinator.

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 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.

The Co-operative Program in Public Policy is designed to be completed in conjunction with a Major or Specialist Program in another discipline and may only be taken as part of a twenty-course honours degree.

For information on fees, work terms and standing in the Program, please see the Co-operative Programs section of this Calendar.

Program Admission

Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this Calendar.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website at: www.utsc.utoronto.ca/subject.asp. The minimum qualifications for entry are 4.0 credits plus a cumulative GPA of at least 2.5.

Program Requirements

Work Placement

To be eligible for the first work term, students must have completed at least 10 credits, including 5.0 credits as a University of Toronto Scarborough student including those specified. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term.

Course Requirements

See requirements for Major Program in Public Policy above.

Courses to be completed before the first work term:

Year 1

1. Socio10H3 Introduction to Sociology I
2. Socio20H3 Introduction to Sociology II
   Prerequisite to Statistics course (if not STA/B22H3 or SOCJB06H3)
POLA61H3 Critical Issues of Canadian Democracy
This course examines some issues critical to the well being of Canadian democracy. The issues may change from year to year but will normally include citizen participation, ethical conduct in political life, national unity, and North American regionalism.
Breadth Requirement: Social & Behavioural Sciences

POLA70H3 Politics in Literature
This course is an introduction to political, social and economic themes arising from imaginative literature. Authors and topics covered will vary from year to year.
Breadth Requirement: Social & Behavioural Sciences

POLA80H3 Cultures of Conflict: Politics, Society and War Since 1812
This course examines political and social attitudes towards war, and their underlying causes, during the 19th and 20th Centuries, as portrayed in film, literature, and historical writing. Wars examined include the War of 1812, World Wars I and II, and the Vietnam War.
Breadth Requirement: Social & Behavioural Sciences

POLA81H3 Leaving Home: Politics and Emigration
This course provides a study of the issues and patterns of emigration in the twentieth century. The course examines the variety of political factors (war and revolution, ethnic/racial discrimination, poverty, dilemmas of conscience) that triggered emigration in the twentieth century. Sources include political and historical works, novels and films.
Breadth Requirement: Social & Behavioural Sciences

POLA83H3 Exploring Globalization
This course introduces students to a series of issues in global politics, and their consequences for Canadian citizens, including the globalizing economy, terrorism, and environmental degradation. The course probes how these major issues are beginning to change the landscape of world politics and present challenges to political authority and collective identity.
Exclusion: (POLA 100Y), (POLA 102Y)
Breadth Requirement: Social & Behavioural Sciences

POLA84H3 Globalization and Governance
This course turns to questions of governance in the context of an increasingly globalized world. The course examines the legitimacy and accountability of international organizations, such as the World Trade Organization, and focuses on the rise of new forms of political activism, such as citizen groups and NGOs.
Exclusion: (POLA 100Y), (POLA 102Y)
Breadth Requirement: Social & Behavioural Sciences

POLA88H3 Politics, Corruption and Violence
This course uses basic tools in comparative political analysis to examine the origins, dynamics and relationship between corruption and violence in less developed countries. Discussion will be placed in the context of recent developments in the global economy and of their political and social consequences within a variety of country case studies. The course will conclude with some reflections on non-violent alternatives to political action.
Breadth Requirement: Social & Behavioural Sciences

POLB11H3 Statistics for Politics and Public Policy
This course introduces fundamentals of data analysis for political science and public policy. Students will complete multiple computer-based exercises using statistical techniques commonly employed by political scientists to study public opinion and government policies. No prior knowledge of university-level math is required, as the emphasis of the course will be on the application and interpretation of the data. Students will have a choice of writing a final paper or a final term test. The final paper will require students to produce an original piece of research using quantitative methods.
Exclusion: ANT353H1, (ECMB20Y3), (ECMB21H3), (PSYB07H3), (SOCI200H3), (STAT223H3)
Breadth Requirement: Quantitative Reasoning

POLB50H3 Canada's Political Institutions
This course examines the institutional foundations of Canadian government. The constitution, the executive, Parliament, the public service, the federal system, the Charter of Rights and Freedoms, and the courts are discussed, with emphasis on their role in democratic and responsible government.
Prerequisite: Any 4.0 credits
Exclusion: (POLA 100Y), (POLA 102Y), POLA14Y
Breadth Requirement: Social & Behavioural Sciences

POLB52H3 Canadian Politics: Connecting Citizens and Governments
This course examines the participatory institutions and processes through which Canadian citizens seek to influence government responsive and responsible. Political parties, the electoral system, interest groups, new social movements, Quebec nationalism and aboriginal self-determination are given attention.
Prerequisite: POLA50H3
Exclusion: (POLA 100Y), (POLA 102Y), POLA14Y
Breadth Requirement: Social & Behavioural Sciences
POLB81H3 Classical Texts in Political Theory I
This course examines central political texts from the ancient Greeks to the Renaissance, including Plato’s Republic, Aristotle’s Politics, Machiavelli’s The Prince.
Prerequisite: Any 4.0 credits Exclusive: POL200Y
Breadth Requirement: History, Philosophy & Cultural Studies

POLB81H3 Classical Texts in Political Theory II
This course examines texts from the Glorious Revolution to the French Revolution, including Hobbes’ Leviathan, Locke’s Second Treatise, Rousseau’s Social Contract and the Discourse on Inequality.
Prerequisite: POLB70H3 Note: It is strongly recommended that students take POLB70H3 and POLB81H3 in consecutive sessions.
Exclusion: POL200Y
Breadth Requirement: History, Philosophy & Cultural Studies

POLB89H3 Introduction to International Relations
This course examines different approaches to international relations, the characteristics of the international system, and the factors that motivate foreign policies.
Prerequisite: Any 4.0 credits Exclusive: POL200Y
Breadth Requirement: Social & Behavioural Sciences

POLB89H3 Global Issues and Governance
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.
Prerequisite: POLB88H3 Note: It is strongly recommended that students take POLB88H3 and POLB89H3 in consecutive sessions.
Exclusion: POL200Y
Breadth Requirement: Social & Behavioural Sciences

POLB90H3 Comparative Development in International Perspectives
This course examines the historical and current impact of the international system 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.
Prerequisite: Any 4.0 credits Exclusive: POL200Y
Breadth Requirement: Social & Behavioural Sciences

POLB91H3 Comparative Development in Political Perspectives
This course examines the role of politics and the state in the processes of development in less developed countries. Topics include the role of military and bureaucracy, the relationship between the state and the economy, and the role of religion and ethnicity in politics.
Prerequisite: POLB90H3 Note: It is strongly recommended that students take POLB90H3 and POLB91H3 in consecutive sessions.
Exclusion: POL200Y
Breadth Requirement: Social & Behavioural Sciences

POLB82H3 Comparative Politics: Revolution, Democracy and Authoritarianism in Modern Europe
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.
Prerequisite: Any 4.0 credits
Breadth Requirement: Social & Behavioural Sciences

POLB92H3 Comparative Politics: 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. 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.
Prerequisite: POLB92H3 Note: It is strongly recommended that students take POLB92H3 and POLB93H3 in consecutive sessions.
Breadth Requirement: Social & Behavioural Sciences

POLC490H3 Current Topics in Politics
Topics will vary depending on the instructor.
Prerequisite: One B-level full credit in Political Science
Breadth Requirement: Social & Behavioural Sciences

POLC492H3 Topics in Comparative Politics
Topics will vary depending on the regional interests and expertise of the instructor.
Prerequisite: One B-level full credit in Political Science
Breadth Requirement: Social & Behavioural Sciences

POLC539H3 Canadian Environmental Politics
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.
Prerequisite: POLA510H3 or POLB500H3 or permission of the instructor
Breadth Requirement: Social & Behavioural Sciences

POLC548H3 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 regionalization and globalization. The legitimacy and performance of the federal system are appraised. Lecture-seminar format.
Prerequisite: POLA510H3 or POLB500H3 or equivalent Exclusion: POLC316Y
Breadth Requirement: Social & Behavioural Sciences

POLC579H3 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 Canadian to secure desirable social, economic, environmental and trade policies. Lecture-seminar format.
POLC793 Women in Political and Social Thought II
This course examines twentieth century female thinkers, feminists and non-feminists.
Prerequisite: POLC7683
Exclusion: JPP341Y
Breadth Requirement: History, Philosophy & Cultural Studies

POLC879S Political Analysis I
This course examines the methods of analysis used in the
literature on politics. The course teaches students to identify
underlying assumptions, to differentiate good from poor logic of
argument, to distinguish between adequate and inadequate use
of evidence and between warranted and unwarranted
conclusions.
Prerequisite: Two full credits in Political Science
Breadth Requirement: History, Philosophy & Cultural Studies

POLC893S The Formulation of American Foreign Policy
This course examines the process by which American
foreign policy is formulated.
Prerequisite: One full credit from: POLB801H3, POLB811H3,
POLC921H3, POLC931H3
Exclusion: POLL320Y
Breadth Requirement: Social & Behavioural Sciences

POLC883S The Application of American Foreign Policy
This course examines the foreign policy of the United States by
analyzing its context and application to a number of specific
regions and problems in the world.
Prerequisite: One full credit from: POLB801H3, POLB811H3,
POLC921H3, POLC931H3
Exclusion: POLL320Y
Breadth Requirement: Social & Behavioural Sciences

POLC64H3 Canadian Foreign Policy I
This course introduces Canadian foreign policy since 1945.
Prerequisite: POLB801H3 & POLC87H3 & POLB811H3 &
POLB81H3 Exclusion: POLC312Y
Breadth Requirement: Social & Behavioural Sciences

POLC85H3 Canadian Foreign Policy II
This course considers the issues and influences which have
determined Canadian foreign policy.
Prerequisite: POLC84H3 Exclusion: POLC312Y
Breadth Requirement: Social & Behavioural Sciences

POLC66H3 Politics and Government in Soviet Society, 1917-
1991
This course examines the rise and the collapse of the first
Communist state. Topics include the Stalinist dictatorship and
de-Stalinization; the planned economy and the black market;
etnic politics and dissent. Particular attention is paid to the
attempt to reform communism before 1991.
Prerequisite: One B-level full credit in Political Science
Exclusion: (POLC204Y)
Breadth Requirement: Social & Behavioural Sciences

POLC873S 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.
Prerequisite: POLB801H3 & POLB811H3
Breadth Requirement: 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.
Prerequisite: [POLB88H3 & POLB89H3] or equivalent
Breadth Requirement: Social & Behavioural Sciences

POLC89H3 Politics and Government in Post-Communist Russia
The course examines the attempt to create democracy and a market economy in post-communist Russia. Topics include federalism and regional politics, organized crime, the decline of the welfare state, and Russia's place in the world.
Prerequisite: One B-level full credit in Political Science
Exclusion: POLC34N
Breadth Requirement: 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.
Prerequisite: POLB90H3 & POLB91H3
Breadth Requirement: 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.
Prerequisite: [POLB91H3 & POLB92H3] or equivalent
Exclusion: POLC34W
Breadth Requirement: 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.
Prerequisite: One full credit in Political Science at the B-level
Exclusion: POLC34O
Breadth Requirement: Social & Behavioural Sciences

POLC93H3 Public Policies in the United States
This course focuses on selected policy issues in the United States.
Prerequisite: One full credit in Political Science at the B-level
Exclusion: POLC34Y
Breadth Requirement: 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.
Prerequisite: POL409H1
Breadth Requirement: Social & Behavioural Sciences

POLC95H3 International Political Economy of Trade
This course examines why countries trade and how international trade is affected by domestic and international structures. Grand theories of international political economy are surveyed for this purpose, and recent perspectives and issues related to the organization of world trade are reviewed.
Prerequisite: [POLB80H3 & POLB81H3] or equivalent
Familiarity with basic economic concepts is recommended
Breadth Requirement: 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 "flexible" and "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 socioeconomic and political reform processes.
Prerequisite: POL409H1 & POLB91H3
Breadth Requirement: 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 cases studies of social actors - 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.
Prerequisite: POL409H1 & POLB91H3
Breadth Requirement: Social & Behavioural Sciences

POLC88H3 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.
Prerequisite: POLB88H3 & POLB89H3
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences
POLC90H3 Latin America: The Politics of the Dispossessed
This course explores the ways 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.
Prerequisite: POLB80H3 or POLH11H3 or equivalent
Exclusion: POLG35Y
Breadth Requirement: 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: 2.0 credits in Political Science and a cumulative GPA of at least 3.2.
Corequisite: POLC70H3 is recommended but not required.
Exclusion: POLD01H3 may not be taken after or concurrently with POLD79H3.
Enrollment Limit: 15

POLD02Y1 Research Seminar in International Relations
This course provides an opportunity to carry out individual research on an international relations topic. After class readings on the topic under study, research methods and design, and research ethics, students will propose and carry out the research. The seminar provides opportunities to present and discuss their unfolding research.
Prerequisite: POL880H3 or POL881H3
Enrollment Limit: 15. Restricted to students in the Specialist Program in Political Science.

POLD41H3 Advanced Topics in Politics
Topics will vary depending on the instructor.
Prerequisite: One B-level full credit in Political Science & permission of instructor.
Enrollment Limit: (POLC41H3)

POLD90H3 Political Interests, Political Identity, and Public Policy
This course examines the interpersonal relationship between organized interests, social movements and the state in the formulation and implementation of public policy in Canada and selected other countries.
Prerequisite: POLA51H3 or POLB50H3 and POLB52H3
Breadth Requirement: Social & Behavioural Sciences

POLD91H3 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.
Prerequisite: POLB50H3 or POLB52H3
Enrollment Limit: 25
Breadth Requirement: Social & Behavioural Sciences

POLD92H3 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.
Prerequisite: POLB30H3 or POLB32H3
Recommended Preparation: POLC61H3 or SOCIB35H3
Enrollment Limit: 25
Breadth Requirement: Social & Behavioural Sciences

POLD64H3 Comparative Public Policy
This seminar course explores some of the major approaches to the comparative analysis of public policies of industrialized countries. The course uses a combination of case studies and theoretical literature to examine selected social and economic public policies and policy making in Europe, Canada, and the United States.
Prerequisite: 1.0 credit at the B- or C-level in comparative or Canadian politics.
Breadth Requirement: Social & Behavioural Sciences

POLD78H3 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.
Prerequisite: POLB70H3 or POLB71H3
Recommended Preparation: POLC73H3 or POLC74H3
Enrollment Limit: 25

POLD71H3 Canadian Political Ideas I
This course introduces students to the ideas informing Canadian political movements and parties.
Prerequisite: One full credit from: POLB50H3, POLB52H3, POLB70H3, POLD71H3 or equivalent
Enrollment Limit: 25
Breadth Requirement: History, Philosophy & Cultural Studies

POLD72H3 Canadian Political Ideas II
This course is an in-depth examination of the ideas informing Canadian political movements and parties.
Prerequisite: POLD71H3
Enrollment Limit: 25
Breadth Requirement: History, Philosophy & Cultural Studies

POLD79H3 Political Analysis II
This seminar course is intended for students interested in deepening their understanding of methodological issues that arise in the study of politics. In addition to class readings, students will write critical reviews of published work and will work to design their own research projects.
Prerequisite: POLC78H3 Enrollment Limit: 25
Breadth Requirement: Social & Behavioural Sciences

POLB80H3 The End of the Cold War and Its Aftermath
This course explores the end of the Cold War and its impact on political and economic evolution of countries in the developing world. With a focus on the former Soviet Union and Africa, this course will examine the nature and impact of new post Cold War pressures for political and economic change.
Prerequisite: One B- or C-level course in Comparative Politics.
Enrollment Limit: 25
Breadth Requirement: Social & Behavioural Sciences
POL387H3: 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.
Prerequisite: POL388H3 & POL381H3
Enrollment Limits: 20
Breadth Requirement: Social & Behavioural Sciences

POL388H3: Exploring the New International Agenda
This course examines in depth the broad set of new issues on the international agenda: terrorism, non-proliferation, human security, women's issues, human rights and others. It emphasizes in-class participation, and student presentations.
Prerequisite: POL388H3
Enrollment Limits: 25
Breadth Requirement: Social & Behavioural Sciences

POL389H3: 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.
Prerequisite: POL388H3 & POL381H3
Enrollment Limits: 25
Breadth Requirement: Social & Behavioural Sciences

POL390H3: 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.
Prerequisite: A social sciences or humanities course on the global south or on development
Enrollment Limits: 25
Breadth Requirement: Social & Behavioural Sciences

POL394H3: Selected Topics on Developing Areas
Topics vary according to instructor
Prerequisite: A Social Sciences or Humanities course on the Third World or Development.

POL395H3: 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 POL395H3 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

POL398H3: 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: One B-level course in Political Science & permission of the instructor.
Exclusion: POL495Y

Psychology

Faculty List
G.B. Birdeman, B.Sc. (CUNY), Ph.D. (NYU), Professor Emeritus
J.E. Fedler, B.A., Ph.D. (Sydney), Professor Emeritus
B. Fortin, B.A. (Toronto), M.A., Ph.D. (Michigan), Professor Emeritus
A. Kukla, A.B., M.A., Ph.D. (UCLA), Professor Emeritus
N.W. Milgram, B.A. (UCLA), M.A., Ph.D. (McGill), Professor Emeritus
M.C. Smith, B.A. (Toronto), Ph.D. (MIT), Professor Emeritus
J.M. Kennedy, B.Sc., M.Sc. (Belfast), Ph.D. (Cornell), Professor Emeritus
M. Highy, B.A. (McGill), M.A. (Toronto), Ph.D. (Berkeley), Professor
J.N. Bassoli, B.A. (McGill), Ph.D. (Cornell), Professor
G.C. Cupchik, B.A. (Michigan), M.A., Ph.D. (Wisconsin), Professor
K.K. Dian, B.A. (Wellesley), Ph.D. (Minnesota), Professor
K.S. Diarbuck, B.A. (University College Dublin), Ph.D. (Toronto), Professor
G.O. Ivy, B.A. (Drew), Ph.D. (California), Professor
S. Jorchens, B.A. (New Brunswick), M.A., Ph.D. (Waterloo), Professor
T.L. Pettit, B.Sc., M.A. (Louisiana), Ph.D. (Florida), Professor
L.A. Pettin, B.Sc. (Sanata State College), M.Sc. (NYU), Ph.D. (Harvard), Professor
M.A. Schmuckler, B.A. (SUNY-Binghamton), Ph.D. (Cornell), Professor
G.S. Cree, B.A., M.A., Ph.D. (Western), Associate Professor
S. Erb, B.Sc. (Wilfrid Laurier), M.A., Ph.D. (Concordia, Associate Professor
M.A. Fournier, B.A., Ph.D. (McGill), Associate Professor
M. Intzicht, B.Sc. (McGill), M.Sc., Ph.D. (Brown), Associate Professor
M. Niemiec, M.A. (Hamburg), Ph.D. (Tubingen), Associate Professor
R. Smyth, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor
K.K. Zdrakonis, B.A., M.A., Ph.D. (York), Associate Professor
D.W. Haley, B.A. (Annapolis), M.A. (San Francisco), Ph.D. (Albuquerque), Assistant Professor
G. Ilie, B.A., M.A. (York), Ph.D. (Toronto), Assistant Professor
A.C.H. Lee, B.A. (Oxford), Ph.D. (Cambridge), Assistant Professor
D. Nussbaum, B.A., M.A. (York), Ph.D. (Waterloo), Assistant Professor
E. P age-Gould, B.Sc. (Carnegie Mellon), Ph.D. (UC Berkeley), Assistant Professor
A.C. Ruocco, B.A. (York), M.Sc., Ph.D., C.Psych (Drexel), Assistant Professor
D.A. Bon, B.A. (Florida), M.A. (Regina), Ph.D. (Toronto), Senior Lecturer
J.C. Lefebvre, B.Sc., M.A., Ph.D. (Toronto), Senior Lecturer
S. Tran, B.A. (Oklahoma), M.S. (Texas A&M), Ph.D. (Minnesota), Lecturer

Associate Chair and Program Supervisor: G. Cree Email: psychology-program-supervisor@uts.cc

Course Support & Program Advisor: Hanae Domage Email: hdomege@uts.cc

Psychology is that branch of science which seeks to understand behaviour and mind. Why organisms - human and infrahuman - act as they do is one of the most compelling and longstanding questions in the history of human thought. Philosophers, artists, novelists, theologians and others have sought the answer through a variety of means. Psychology uses the methods of scientific inquiry to address the question.

The areas of interest encompassed by the disciplines of psychology include: How humans learn, adapt, and remember; how they change over their lifetimes; how they are affected by the presence of others; how their behaviour relates to their physiological functions; how mental processes can exhibit pathologies and how these pathologies can be treated. Our course offerings in Psychology include all of these topics, covering how psychologists go about answering the important questions in each, and what we have learned about each.

The Specialist Program in Psychology focuses on normal thought, feelings and behaviour whereas the Specialist Program in Mental Health Studies focuses on abnormal psychological processes. The Specialist Program in Psychology is intended both for students with a strong interest in the science of psychology and for those who wish to pursue graduate work in psychology after the first degree. The Specialist in Mental Health Studies is intended for students with a strong interest in pathologies of the mind and in their treatment.

Students considering graduate study should plan to include the PSY2955 (thesis course) in their undergraduate Program. Two co-operative programs are offered, the Specialist (Co-operative) Program in Psychology and the Specialist (Co-operative) Program in Mental Health Studies. Admission to these programs which involve practical work experience is limited.

The Major Program in Psychology and the Major Program in Mental Health Studies are designed to introduce students to the main areas of psychology and related disciplines. The Minor Program in Psychology is designed for students who are interested in a less intensive exposure to the field. Often, students wish to concentrate their studies in two areas, in which case a double Major Program combining psychology with another discipline is ideal. Programs in Mental Health Studies and Psychology cannot, however, be combined. Students particularly interested in the relation of brain to behaviour should consider the Neuroscience Program described earlier in this Calendar.

Planning your Program in Psychology

Students should be aware that the A, B, C, D course structure in Psychology dictates the sequence in which courses should be taken, but not the year of study in which a given course must be taken. That is, A, B, C, and D do not correspond to first, second, third and fourth year. For example, it is recommended that PSYB0703 and PSYC0803 be taken consecutively in the two terms of second year.

Courses in the Faculty of Arts and Science correspond to A, B, C, or D-level of study however not all 400-series are not necessarily considered D-level. Students are encouraged to plan carefully so that they will meet their educational objectives over the years of their degree. Discussions with the Program Advisor can be very valuable in this regard.

Program Exclusion

Programs in Mental Health Studies and Psychology cannot be combined.
First-Year Students in Psychology
PSYA01H3 & PSYA02H3 are recommended in first year for students intending to pursue a Specialist or Major Program in Psychology or Mental Health Studies.

Courses in Neuroscience
Students interested in including Neuroscience courses in their Psychology or Mental Health Studies Program should consult the Neuroscience section for details.

Science Engagement Courses
For science experiential learning through community outreach, classroom in-reach and team research, please see the Science Engagement section of this Calendar.

SPECIALIST PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)
Associate Chair and Program Supervisor: G. Cree Email: psychology-program-supervisor@utsc.utoronto.ca
Course Support & Program Advisor: Hanan Domloge Email: hdomloge@utsc.utoronto.ca

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. PSYA01H3 Introductory Psychology: Part I
   and
   PSYA02H3 Introductory Psychology: Part II
   (6 credits)
2. Statistical Methods (1.0 credit)
   a) PSYB07H3 Data Analysis in Psychology
   and
   b) PSYC08H3 Advanced Data Analysis in Psychology
3. Laboratory Methods (1.0 credit)
   a) PSYB11H3 Psychological Research Laboratory
   and
   b) PSYC37H3 Psychological Assessment
4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)
5. History & Approaches (0.5 credit)
   a. PSYC84H3 Psychology & the Scientific Mind
   or
   b. PSYC85H3 History of Psychology
6. PSYB05H3 Personality
   and
   PSYB32H3 Abnormal Psychology
   (1.0 credit)
7. Students are required to take 2.0 credits from either the psycho-social grouping or the psycho-biological grouping listed below, as well as 1.0 credit from the other grouping (3.0 credits):
   a. Psycho-Social Grouping
      PSYB45H3 Behaviour Modification
      PSYC18H3 The Psychology of Emotion
      PSYC19H3 Advanced Personality Psychology
      PSYC26H3 Psychotherapy
      PSYC39H3 Psychology and the Law
   b. Psycho-Biological Grouping
      PSYB64H3 Physiological Psychology
      PSYB66H3 Human Brain & Behaviour
      PSYC13H3 Clinical Neuropsychology
      PSYC13H3 Neuropsychological Rehabilitation
      PSYC62H3 Drugs and the Brain
8. Students are required to take 1.0 D-level credit, with at least 0.5 from the following list (1.0 credit)
PSYD3063 Current topics in Personality Psychology
PSYD3353 Current topics in Abnormal Psychology
PSYD3503 Clinical Psychopharmacology

9. Additional credits in Psychology (1.5 credits)

10. Students must select 2.0 credits from the following courses:
    HLTH0103 Health, Aging, and the Life Cycle
    HLTH0203 Issues in Child Health and Development
    HLTH0303 Foundations in Health Studies
    HLTU0203 Women and Health: Past and Present
    LINN0203 Sociolinguistics
    PHLA1103 Introduction to Ethics
    PHLH0003 Happiness and Freedom
    PHLH0013 Biomedical Ethics
    SOCIA1003 Introduction to Sociology I
    SOCIA2003 Introduction to Sociology II
    SOCIB4803 Family and Society
    SOCH5903 Deviance and Normality I
    SOCH5913 Deviance and Normality II
    SOCC3003 Criminal Behaviour

SPECIALIST (CO-OPERATIVE) PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)

Program Supervisor: J. LeBouthillier Email: jlebouthillier@utoronto.ca
Course Support & Program Advisor: Human Domains Email: hdomains@utoronto.ca

The Program combines academic studies in the field of mental health with practical work experience. The work experience provided by the program enables students to explore career opportunities relevant to their studies in mental health. Completion of the program does not, however, represent a professional qualification in psychology, which requires further study at the graduate level. Work settings may also provide students with the opportunity to observe and assist psychologists engaged in clinical practice, hence providing a broader and more informed basis for the selection of a postgraduate program appropriate to the student's talents and interests. Some work settings may provide the opportunity for clinical engagement under close supervision. For information on admissions, fees, work terms and standing in the Program, please see the Co-operative Programs section of this Calendar.

Program Admission
Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post secondary institution, see the Co-operative Programs section in this Calendar.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website at:
www.utoronto.ca/undergrad. The minimum qualifications for entry are 4.0 credits including PSYA01H3 & PSYA02H3 plus a cumulative GPA of at least 2.75.

Program Requirements

Work Terms
The program requires eight four month terms of study and two four month work terms over a four year period. To be eligible for their first work term, students must have completed at least 10.0 credits, including PSYB00H3, PSYB07H3, PSYC2013 and PSYC2083. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term. Certain other courses specified below before the first work term is undertaken.
To be eligible for their second work term, students must have completed at least 12.5 credits, including certain courses specified below, and have received satisfactory evaluation for their performance and for their report on their first work term.

Course 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 must be at the D-level:

1. PSY A01H3 Introductory Psychology: Part I

   and

   PSY A02H3 Introductory Psychology: Part II
254 Psychology

2. Statistical Methods (1.0 credit)
   a. PSYB00703 Data Analysis in Psychology
   and
   b. PSYC08103 Advances Data Analysis in Psychology

3. Laboratory Methods (1.5 credits)
   a. PSYB00103 Psychological Research Laboratory
   and
   b. PSYC32103 Clinical Neuropsychology Laboratory
   and
   c. PSYC37103 Psychological Assessment

4. PSYC02103 Scientific Communication in Psychology* (0.5 credit)

5. History & Approaches (0.5 credit)
   a. PSYC34103 Psychology & the Scientific Mind
   or
   b. PSYC58101 History of Psychology

6. PSYB36001 Personality
   and
   PSYB32001 Abnormal Psychology* (1.0 credit)

7. Students are required to take 2.0 credits from either the psycho-social grouping or the psycho-biological grouping listed below, as well as 1.0 credit from the other grouping (3.0 credits):
   a. Psycho-Social Grouping
      PSYB45103 Behaviour Modification
      PSYC31103 The Psychology of Emotion
      PSYC35103 Advanced Personality Psychology
      PSYC36003 Psychobiology
      PSYC37103 Psychology and the Law
   b. Psycho-Biological Grouping
      PSYB36103 Physiological Psychology
      PSYB65103 Human Brain & Behaviour*
      PSYC33103 Neuropsychological Rehabilitation*
      PSYC62103 Drugs and the Brain

8. Students are required to take 1.0 D-level credit, with at least 0.5 credit from the following list:
   PSYD35001 Current topics in Personality Psychology
   PSYD33001 Current topics in Abnormal Psychology
   PSYD35001 Clinical Psychopharmacology

9. Additional credits in Psychology (1.0 credits)

10. Students must select 2.0 credits from the following courses:
    HLTB01013 Health, Aging, and the Life Cycle
    HLTB02013 Issues in Child Health and Development
    HLTB03013 Foundations in Health Studies
    HLTB03013 Women and Health: Past and Present
    LINB2003 Sociolinguistics
    PHIL11103 Introduction to Ethics
    PHIL09103 Biomedical Ethics
    SOCA01013 Introduction to Sociology I
    SOCA02013 Introduction to Sociology II
    (SOCE48801) Family and Society
    SOCE51012 Deviance and Normativity I
    SOCE51012 Deviance and Normativity II
    SOCC39103 Criminal Behaviour

*These credits must be successfully completed before the first work term.
**These credits must be successfully completed before the second work term.

MAJOR PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)
Associate Chair and Program Supervisor: C. Cote Email: psychology-program-supervisor@utm.utoronto.ca
Course Support & Program Advisor: Human Domains Email: hdomains@utm.utoronto.ca

Program Requirements
The program requires 7.0 credits as follows of which at least 2.0 must be at the C- or D-level:
1. PSY01H3 Introductory Psychology: Part I
   and
   PSY02H3 Introductory Psychology: Part II (1.0 credit)
2. PSYB07H3 Data Analysis in Psychology (0.5 credit)
3. Laboratory Methods (1.0 credit)
   PSYB01H3 Psychological Research Laboratory
   and
   PSYC37H3 Psychological Assessment
4. PSYB30H3 Personality
   and
   PSYB32H3 Abnormal Psychology (1.0 credit)
5. Students are required to take 1.0 credit from either the psycho-social grouping or the psycho-biological grouping listed below, as well as 0.5 credit from the other group (1.5 credits):
   a. Psycho-Social Grouping
      PSYB45H3 Behaviour Modification
      PSYC18H3 The Psychology of Emotion
      PSYC25H3 Advanced Personality Psychology
      PSYC36H3 Psychotherapy
      PSYC39H3 Psychology and the Law
   b. Psycho-Biological Grouping
      PSYB46H3 Physiological Psychology
      PSYB65H3 Human Brain & Behaviour
      PSYC21H3 Clinical Neuropsychology
      PSYC33H3 Neuropsychological Rehabilitation
      PSYC62H3 Drugs and the Brain
6. Credits at the D-level (0.5 credit)
7. Additional credits in Psychology (1.5 credits)

SPECIALIST PROGRAM IN PSYCHOLOGY (SCIENCE)
Associate Chair and Program Supervisor: G. Cross Email: psychology-program-supervisor@utsc.utoronto.ca
Course Support & Program Advisor: Human Homology Email: hhomology@utsc.utoronto.ca

Program Requirements
The Program requires completion of 12.5 credits as follows including at least 4.0 at the C- or D-level of which at least 1.0 must be at the D-level:
1. PSY01H3 Introductory Psychology: Part I
   and
   PSY02H3 Introductory Psychology: Part II (1.0 credit)
2. Statistical Methods (1.0 credit)
   a. PSYB01H3 Data Analysis in Psychology
   and
   b. PSYD09H3 Advanced Data Analysis in Psychology
3. Laboratory Methods (1.0 credit)
   a. PSYB01H3 Psychological Research Laboratory
   and
   b. 0.5 credit from among the following:
      PSYC34H3 Brain Imaging Laboratory
      PSYC36H3 Psychophysiology Laboratory
      PSYC11H3 Social Psychology Laboratory
      PSYC26H3 Developmental Psychology Laboratory
      PSYD58H3 Cognitive Psychology Laboratory
      NROC33H3 Neuroscience Laboratory
4. PSYD03H3 Scientific Communication in Psychology (0.5 credit)
5. History and Approaches (0.5 credit)
   a. PSYC48H3 Psychology and the Scientific Mind
   or
b. PSYC8513 History of Psychology
6. Credits 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. Credits at the D-level (1.0 credit)
   Students must take a 0.5 credit from each of the groupings listed below:
   a. Group One
      PSYD1383 Current Topics in Social Psychology
      PSYD1383 Critical Analysis in Social Psychology
      PSYD1383 Psychology of Gender
      PSYD2083 Current Topics in Developmental Psychology
      PSYD2283 Socialization Processes
      PSYD4483 Human Intelligence
      PSYD5783 Cognition, Health, Culture and Decision Making
   b. Group Two
      PSYD2583 The Bilingual Brain
      PSYD3083 Genes, Brain, and the Development of Mind
      PSYD5083 Current Topics in Memory and Cognition
      PSYD5183 Current Topics in Perception
      PSYD5683 Creativity, Reasoning and Problem Solving
      PSYD5883 The Scientific Study of Conscious and Unconscious Influences
      PSYD6683 Current Topics in Human Brain and Behaviour
      PSYD6983 Seminar in Computational Cognitive Neuroscience
8. Additional credits in Psychology (2.5 credits)
   Students must choose 2.5 further credits from any of the remaining courses in Psychology. In selecting the 2.5 credits, 1.0 credit must be at the C- or D-level. Supervised study or thesis courses may be used to fulfill a maximum of 0.5 credits.

SPECIALIST (CO-OPERATIVE) PROGRAM IN PSYCHOLOGY (SCIENCE)
Program Supervisor: J. LeBoeuf Email: jleboeuf@uottawa.ca
Course Support & Program Advisor: Hamm Domengo Email: hdomengo@uottawa.ca
Co-op Contact:accoop@uottawa.ca

The program combines academic studies in the field of psychology with practical work experience. The work experience provided by the program enables students to explore career opportunities relevant to their studies in psychology. Completion of the program does not, however, represent a professional qualification in psychology, which requires further study at the graduate level. Work settings may also provide students with the opportunity to observe psychologists interacting with other professionals, hence providing a broader and more informed basis for the selection of a postgraduate program appropriate to the student’s talents and interests. Some work settings will provide the opportunity for participation in basic or applied research. For information on admissions, fees, work terms and standing in the Program, please see the Co-operative Programs section of this Calendar.

Program Admission
Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post secondary institution, see the Co-operative Programs section in this Calendar.
Current U of T Scarborough students: Application procedures can be found at the Registrar’s Office website at:
www.uottawa.ca/subjectinfo. The minimum qualifications for entry are 4.0 credits including PSYA01H3 & PSYA02H3 plus a cumulative GPA of at least 2.75.

Work Terms
The program requires eight four month terms of study and two four month work terms over a four year period. To be eligible for their first work term, students must have completed at least 10.0 credits, including PSYB01H3, PSYB02H3, PSYB03H3 and PSYB04H3.

Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term. Certain other courses specified below before the first work term is undertaken.

To be eligible for their second work term, students must have completed at least 12.5 credits, including certain courses specified below, and have received satisfactory evaluation for their performance and for their report on their first work term.
Course Requirements
The program requires the completion of 12.5 credits as specified for the Specialist Program in Psychology. The program provides a theoretical and methodological foundation for the study of psychological processes relevant to social behaviour, life-span development, perception, memory, language and thought. Students can apply for work term employment in settings such as survey research firms and in government departments and other agencies involved in providing support to persons with disabilities, educational organizations, and research and development departments in industry.

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. PSYA01H3 Introductory Psychology: Part I
   and
   PSYA02H3 Introductory Psychology: Part II
   (1.0 credit)

2. Statistical Methods (1.0 credit)
   a. PSYB07H3 Data Analysis in Psychology*
   and
   b. PSYC38H3 Advanced Data Analysis in Psychology*

3. Laboratory Methods (1.0 credit)
   a. PSYB01H3 Psychological Research Laboratory*
   and
   b. 0.5 credit from among the following:
      PSYC04H3 Brain Imaging Laboratory
      PSYC06H3 Psychophysiology Laboratory
      PSYC11H3 Social Psychology Laboratory
      PSYC26H3 Developmental Psychology Laboratory
      PSYC58H3 Cognitive Psychology Laboratory
      NROCA3H3 Neuroscience Laboratory

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)*

5. History and Approaches (0.5 credit)
   a. PSYC34H3 Psychology and the Scientific Mind
   b. PSYCS8H3 History of Psychology

6. Credits 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. Credits at the D-level (1.0 credit)
   Students must take 0.5 credit from each of the groupings listed below:
   a. Group One
      PSYD15H3 Current Topics in Social Psychology
      PSYD16H3 Critical Analysis in Social Psychology
      PSYD18H3 Psychology of Gender
      PSYD20H3 Current Topics in Developmental Psychology
      PSYD22H3 Socialization Processes
      PSYD34H3 Human Intelligence
      PSYD57H3 Cognition, Health, Culture and Decision Making

   b. Group Two
      PSYD25H3 The Bilingual Brain
      PSYD26H3 Gners, Brain, and the Development of Mind
      PSYD58H3 Current Topics in Memory and Cognition
      PSYD51H3 Current Topics in Perception
      PSYD56H3 Creativity, Reasoning and Problem Solving
PSYD58H3 The Scientific Study of Conscious and Unconscious Influences
PSYD66H3 Current Topics in Human Brain and Behaviour
PSYD90H3 Seminar in Computational Cognitive Neuroscience

8. Additional credits in Psychology (2.5 credits)
   Students must choose 2.5 further credits from any of the remaining courses in Psychology. In selecting the 2.0 credits, 1.0 credit must be at the C- or D-level. Supervised study or thesis courses may be used to fulfill a maximum of 0.5 credit. These credits must be successfully completed before the first work term.

MAJOR PROGRAM IN PSYCHOLOGY (SCIENCE)

Associate Chair and Program Supervisor: G. Cree Email: psychology-program-supervisor@utsc.utoronto.ca
Course Support & Program Advisor: Hanan Domenge Email: hdomenge@utsc.utoronto.ca

Program Requirements
The Program requires completion of 7.0 credits as follows of which at least 2.0 credits must be at the C- or D-level:

1. PSY A11H3 Introductory Psychology: Part I
   and
   PSY A02H3 Introductory Psychology: Part II
   (1.0 credit)

2. PSY B00H3 Psychological Research Laboratory
   (0.5 credit)

3. STAB 22H3 Statistics I (recommended)
   or
   PSY B07H3 Data Analysis in Psychology
   or
   SOC B04H3 Social Statistics
   (0.5 credit)

4. Credits at the B-level and C-level (2.5 full credits)
   Students are required to take 2.0 credits at the B-level or C-level from group (a) or (b) and 0.5 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. Credits at the D-level (0.5 full credit)
   Students must choose one half credit from the D-level offerings in Psychology. Certain D-level NRO courses may be used to fulfill this requirement with the approval of the Program Supervisor.
   Note: A 300-level course in PSY offered on another campus is comparable to a C-level course, even if listed as an exclusion to a D-level course. Hence, a 300-level course may not be used to satisfy the D-level program requirement, although it may be applied as appropriate to other program requirements. Courses at the 400-level count as D-level courses.

6. Additional credits in Psychology (2.0 credits). Students must choose 2.0 further credits from any of the remaining courses in Psychology. At least 1.0 credit from these must be at the C or D-level.

MINOR PROGRAM IN PSYCHOLOGY (SCIENCE)

Associate Chair and Program Supervisor: G. Cree Email: psychology-program-supervisor@utsc.utoronto.ca
Course Support & Program Advisor: Hanan Domenge Email: hdomenge@utsc.utoronto.ca

Program Requirements
The Program requires completion of 4.0 credits as follows of which at least 1.0 credits must be at the C-level:

1. PSY A01H3 Introductory Psychology: Part I
   and
   PSY A02H3 Introductory Psychology: Part II
   (1.0 credit)

2. PSY B01H3 Psychological Research Laboratory (0.5 credit)

3. STAB 22H3 Statistics I (recommended)
   or
   PSY B07H3 Data Analysis in Psychology
   or
   SOC B04H3 Social Statistics (0.5 credit)

4. Credits at the B-level or C-level from each of the two content groups listed below (1.0 credit):
   a. Social, Developmental and Personality (courses listed in the 10-, 20- or 30-series);
   b. Learning, Perception, Cognition and Physiology (courses listed in the 40-, 50- or 60-series);
5. 1.0 additional credit in Psychology at the C-level.

**PSYAO2H3 Introduction to Psychology: Part I**
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: PSY2000H, PSY100Y, (PSY101H1)
Breadth Requirement: Natural Sciences

**PSYAO2H3 Introduction to Psychology: Part II**
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: PSY1008H, PSY100Y, (PSY102H1)
Breadth Requirement: Social & Behavioural Sciences

**PSYBO2H3 Psychological Research Laboratory**
This course surveys the basic research techniques and designs used in the diverse field of psychological research, both in experimental and non-experimental areas. The topics range from the general principles of scientific research to concrete design issues, from sampling techniques to the typical problems faced when interpreting data.
Prerequisite: PSYA01H3 & PSYA02H3
Breadth Requirement: Social & Behavioural Sciences

**PSYBO2H3 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 program in Psychology, Psycholinguistics or Neuroscience will be given priority for this course.
Breadth Requirement: Quantitative Reasoning

**PSYB1H3 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 & PSYA02H3
Exclusion: PSY220H1
Breadth Requirement: Social & Behavioural Sciences

**PSYB2H3 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 & PSYA02H3
Exclusion: PSYB210H3, PSY210H1
Breadth Requirement: Social & Behavioural Sciences

**PSYB2H3 Introduction to Developmental Psychology: Focus on Education**
Child and adolescent development in education. This course presents students with a broad and integrative overview of child development as it pertains to education. Topics are organized chronologically beginning with prenatal development and continuing through selected issues in adolescence and life-span development. In addition to the lecture component, students will complete a field placement in which they observe children’s behaviour and think critically about development.
Prerequisite: Enrolment in CTEP
Exclusion: CETE1001H, PSYB210H3, PSY210H1
Recommended Preparation: PSYA01H3 & PSYA02H3
Breadth Requirement: Social & Behavioural Sciences

**PSYB2H3 Personality**
This course is intended to introduce students to the scientific study of the whole person in biological, social, and cultural context. The ideas of classical personality theorists will be discussed in reference to findings from contemporary personality research.
Prerequisite: PSYA01H3 & PSYA02H3
Exclusion: PSY220H1
Breadth Requirement: Social & Behavioural Sciences

**PSYB2H3 Abnormal Psychology**
The study of abnormal psychology is a search for why people behave, think, and feel in unexpected, sometimes bizarre, and typically self-defeating ways. Much less is known than we would like. However, this course will focus on the ways in which psychopathologists have been trying to learn the causes of abnormal behaviour and what they know about preventing and alleviating it.
Prerequisite: PSYA01H3 & PSYA02H3
Exclusion: PSY240H1, PSY340H1
Breadth Requirement: Social & Behavioural Sciences

**PSYB4H3 Behaviour Modification: Origins and Applications**
A survey of attempts to regulate abnormal human behaviour. Basic principles of behavioural change including reinforcement, extinction, punishment and stimulus control; operand and respondent conditioning procedures; research strategies. Other topics include behavioural contracting, cognitive-behaviour therapy, rational-emotive therapy, and systematic desensitization; treatment of phobias; treatment of alcohol and drug abuse.
Prerequisite: PSYA01H3 & PSYA02H3
Exclusion: PSY269H1
Breadth Requirement: Social & Behavioural Sciences
PSY515H3 Perception and Cognition
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 & PSYA02H3
Exclusion: PSY280H1
Breadth Requirement: Natural Sciences

PSYB57H3 Memory and Cognition
Discussion of experiments and theories in human memory and cognition. This course provides an analysis of the research on encoding, storage and retrieval of information in human memory. Also surveyed are the related topics of attention, thinking, and problem solving, and their role in a general model of information processing.
Prerequisite: PSYA01H3 & PSYA02H3 Exclusion: PSY270H1
Recommended Preparation: PSYB07H3 or STAR22H3 or their equivalents.
Breadth Requirement: Natural Sciences

PSYB54H3 An Introduction to Physiological Psychology
A survey of the biological mechanisms underlying fundamental psychological processes. 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 & PSYA02H3
Exclusion: NROG61H3, PSY280H1
Breadth Requirement: Natural Sciences

PSYB58H3 Human Brain and Behaviour
The neurological basis of human behaviour: an introduction to human neuro-psychology. Hemispheric specialization, diseases of the central nervous system, behavioural consequences of damage to each of the cortical lobes, speech disorders, psychopharmacology and the biological basis of psychiatric disorders will be covered.
Prerequisite: PSYA01H3 & PSYA02H3
Breadth Requirement: Natural Sciences

PSYC322H1 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 & [PSYB07H3 or SOCIB06H3 or STAR22H3]
Corequisite: PSYC8903
Enrollment Limits: Limited to students in the Specialist Programs in Psychology and in Mental Health Studies.
Breadth Requirement: Natural Sciences

PSYC348H3 Brain Imaging Laboratory
The course introduces brain imaging techniques, focusing on techniques such as high-density electromagnetoencephalography (EEG) and transcranial magnetic stimulation (TMS), together with neuronavigation-based neuroimaging.
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 & PSYB07H3
Enrollment Limits: 35
Breadth Requirement: Natural Sciences

PSYC388H3 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
Recommended Preparation: PSYB07H3 & PSYU02H3
Enrollment Limits: 35
Breadth Requirement: Natural Sciences

PSYC389H3 Advanced Data Analysis in Psychology
This course is a continuation of PSYB07H3. 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 pretest and post hoc tests. Finally, there will be an introduction to multiple regression, including discussions of design issues and interpretation problems.
Prerequisite: [PSYB07H3 or SOCIB06H3 or STAR22H3] & one additional B-level half-credit in Psychology & id PSYD07H3 is not taken as the prerequisite, completion of a bridging module & permission of the instructor - for information see www.ualberta.ca/psych/undergraduate].
Exclusion: STAC52H3, PSY202H1
Breadth Requirement: Quantitative Reasoning

PSYC111H3 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: PSYB01H3 & [PSYB07H3 or SOCIB06H3 or STAR22H3] & PSYB10H3
Exclusion: PSY292H1 Enrollment Limits: 25
Breadth Requirement: Social & Behavioural Sciences

PSYC124H3 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: [PSYB01H3 or SOCIO6H3 or STAB22H3] & [PSYB10H3 plus one additional B-level half-credit in PSY]
Exclusion: PSY320H, PSY322H
Breadth Requirement: Social & Behavioural Sciences

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 illuminate 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: [PSYB07H3 or SOCIO6H3 or STAB22H3] & [PSYB10H3 plus one additional B-level half-credit in PSY]
Exclusion: PSY321H
Breadth Requirement: Social & Behavioural Sciences

PSYC18H3 The Psychology of Emotion
Emotion is examined in everyday life and in relation to the arts. The focus of this course is on a contrast between action and experience oriented approaches to emotion. An effort is made to synthesize the many theories of emotion coming from psychodynamic, functionalism, behavioural, social constructionism, and phenomenology.
Prerequisite: PSYB10H3
Exclusion: PSY349H, PSY349H
Breadth Requirement: Social & Behavioural Sciences

PSYC21H3 Advanced Developmental Psychology
An examination of selected issues pertaining to adult development and aging. Examples of topics which may be considered: adaptation to parenthood, work-related functioning, continuity versus change in adulthood.
Prerequisite: PSYB20H3 plus one additional B-level half-credit in PSY
Exclusion: PSY313H
Recommended Preparation: PSYB07H3 or STAB22H3 or their equivalent
Breadth Requirement: Social & Behavioural Sciences

PSYC22H3 Developmental Psychobiology
Prerequisite: PSYB20H3
Breadth Requirement: Natural Sciences

PSYC23H3 How the Child Discovers Language
The effortless way that young children acquire language remains one of the most enigmatic characteristics. Here, we discover the biological capacities and the important social factors that work together in language acquisition.
We challenge assumptions about Language versus Communication, establish the basic milestones, and evaluate prevailing theories stemming from leading brain imaging methods.
Prerequisite: PSYB20H3 & one course from the 50 or 60 series
Exclusion: JLP33H
Breadth Requirement: Natural Sciences

PSYC29H3 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: PSYB01H3 & [PSYB07H3 or SOCIO6H3 or STAB22H3] & PSYB20H3
Exclusion: PSY319H
Enrollment Limits: 24
Breadth Requirement: 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 neuropsychology 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 enroll in PSYC32H3, not in this course.
Prerequisite: PSYB10H3 & [PSYB07H3 or SOCIO6H3 or STAB22H3] & PSYB32H3 & PSYB65H3
Exclusion: PSYC31H3, PSY319H
Enrollment Limits: 75
Breadth Requirement: Natural Sciences

PSYC32H3 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: PSYB10H3 & [PSYB07H3 or SOCIO6H3 or STAB22H3] & PSYB32H3 & PSYB65H3
Exclusion: PSYC31H3
Enrollment Limits: Enrolment is limited to students in the Specialist (Co-operative) Program in Mental Health Studies. Breadth Requirement: 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: [PSY329H3 or PSY331H3] & [PSYB57H3]
Breadth Requirement: Natural Sciences

PSYC359H3 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: [PSYB07H3 or SOCIB06H3 or STA322H3] & [PSYB58H3] plus one additional B-level half-credit in PSY
Exclusion: PSY373H1
Breadth Requirement: Social & Behavioural Sciences

PSYC369H3 Psychotherapy
This course will provide students with an introduction to prominent behavioural change theories (i.e. psychodynamic, cognitive-behavioural, humanistic 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
Exclusion: PSY340H1
Enrolment Limit: Limited to students in the Mental Health Studies programs.
Breadth Requirement: Social & Behavioural Sciences

PSYC373H3 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 assessment. Lectures and demonstrations on test administration and interpretation will be provided.
Prerequisite: PSYB32H3
Enrolment Limit: Limited to students in the Mental Health Studies programs.
Breadth Requirement: Social & Behavioural Sciences

PSYC399H3 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
Exclusion: PSYC339H3, PSY329H3, PSY344H1
Breadth Requirement: Social & Behavioural Sciences

PSYC540H3 Cognition and Representation
Recent research on the psychology of representation, in pictures, words, metaphors, analogies and symbols. Topics will include developmental and cross-cultural research on children's drawing, the perception of pictures by the sighted, and blind people identifying raised pictures. It will also include studies on children and adults using literal and non-literal representations, including metaphors, similes, and analogies. It will include cross-cultural research on forms used as symbols, and studies on children and machines using symbols. Teaching method will be lectures and demonstrations.
Prerequisite: [PSYB07H3 or SOCIB06H3 or STA322H3] & a PSYB20-series or a PSYB50-series half-credit
Breadth Requirement: Natural Sciences

PSYC559H3 Cognitive Neuroscience
The goal of this course is to present and analyze current methods, findings and theories relating brain function to cognitive processes such as perception, action, attention, memory, learning, and problem-solving. Recently developed research methods of functional neuro-imaging (including PET, MEG, and functional MRI) will be described along with the important research findings that they have generated.
Prerequisite: [PSYB57H3] & [PSYB65H3]
Exclusion: [PSY399H3, PSY440H1]
Breadth Requirement: Natural Sciences

PSYC569H3 Music Cognition
Study the perceptual and cognitive processes 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: [PSYD10H3] & [PSY402H3] & [PSYB07H3 or SOCIB06H3 or STA322H3] & a PSYB50-series half-credit
Breadth Requirement: Natural Sciences

PSYC589H3 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 design experiments, manipulate data files, and conduct basic data analyses.
Prerequisite: PSYB01H3 & [PSYB07H3 or SOCIB06H3 or STA322H3] & [PSYB51H3 or PSYB57H3]
Exclusion: PSYC598H1
Breadth Requirement: Natural Sciences

PSYC628H3 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, neurological 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 its equivalent] & [at least one of PSYB64H1, PSYB66H1 or NRB568H3] & [one additional B-level or C-level half-credit in PSY or NRB]
Exclusion: PSY396H1 & PCLI475Y
Breadth Requirement: Natural Sciences

PSYC649H3 Psychology and the Scientific Mind
This course examines how scientists think and make
PSYCH003 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, behaviorism, and phenomenology. This course is restricted to 3rd and 4th year students in Specialist Programs in Psychology, Mental Health Studies & Psycholinguistics.
Prerequisite: Two B-level half-credits in Psychology or permission of the instructor.
Exclusion: PSY101H, PSY200H
Recommended Preparation: PSY101H or STAB21H or their equivalent
Breadth Requirement: History, Philosophy & Cultural Studies

PSYCH003H 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.uottawa.ca/psych/undergraduate) 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: 3.0 full credits in Psychology & permission of the proposed supervisor. (Note: Normally students need a cumulative GPA of at least 2.7 for permission to be granted.)
Exclusion: For PSYCH02H: COGSC31H, NROC99H, PSYCH03H, PSYCH04H; for PSYCH03H: COGSC91H, NROC03H, PSYCH03H, PSYCH04H

PSYCH11H3 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 closer relationships, development and maintenance of relationships, and relationship conflict and dissolution.
Prerequisite: PSYB103H & [PSYC120H or PSYC120H]
Enrollment Limits: 24
Breadth Requirement: Social & Behavioural Sciences

PSYCH12H3 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 “hypertexted 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: PSYB103H & [PSYC120H or PSYC146H]
Exclusion: PSYH260H, PSYD200H
Enrollment Limits: 24
Breadth Requirement: Social & Behavioural Sciences

PSYCH15H3 Current Topics in Social Psychology
An intensive examination of selected issues and research problems in social psychology. Prerequisite: PSYB103H & [PSYC120H or PSYC146H]
Exclusion: PSY240H, PSY242H
Enrollment Limits: 24

PSYCH15H3 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 seeking for scholarly research on the topic.
Prerequisite: PSYC113H or PSYC123H or [PSYB103H plus one C-level half-credit in PSY]
Exclusion: PSY240H
Enrollment Limits: 24
Breadth Requirement: Social & Behavioural Sciences

PSYCH17H3 Social Neuroscience
This course provides an overview of the emerging field of social neuroscience. It explores how integrating theory and methods from cognitive psychology, physiology, and neuroscience can be used to address fundamental questions in social psychology and, ultimately, broaden our understanding of mind, brain, and behaviour in a social world.
Prerequisite: PSYC113H & [PSYB64H or PSYB65H]
Exclusion: PSY473H, PSY373H
Enrolment Limits: 24
Breadth Requirement: 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 plus two C-level half-credit in PSY Exclusion: PSY123H1
Enrolment Limits: 24
Breadth Requirement: Social & Behavioural Sciences

**PSYD26H3 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 and the interests of both instructor and students. Lectures, discussions, and oral presentations by students.
Prerequisites: PSY213H1 or PLIC24H3 or [PSYB20H3 plus one C-level half-credit in PSY]
Exclusion: PSY410H1
Enrolment Limits: 24
Breadth Requirement: 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 behaviors) 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 & PSYB20H3 plus one C-level half-credit in PSY
Exclusion: PSY311H1, PSY410H1
Enrolment Limits: 24
Breadth Requirement: Social & Behavioural Sciences

**PSYD25H3 The Bilingual Brain**
Prevailing views about bilingualism and the minds and brains of bilinguals are explored. Recent technological breakthroughs are considered that look inside the bilingual brain, and, for the first time, adjudicate among competing views. We further explore the bilingual brain as a new lens into the nature of cognitive and linguistic processing in all human brains.
Prerequisite: PSY225H3
Enrolment Limits: 24
Breadth Requirement: Natural Sciences

**PSYD28H3 Genes, Brain and the Development of Mind**
This course explores a new direction in developmental science that combines genetics, brain imaging, and human behavioral psycholinguistic and cognitive methods. Together, these three disciplines afford a new lens into the evolution of the human mind and its cognitive processes (including, attention, memory, language, reading disorders) and aspects of emotion and social cognition.
Prerequisite: PSYB20H3 & [PSYB31H3 or PSYB31H3]
Exclusion: PSYD200H3 (if taken in the 2008 Winter Session) Enrolment Limits: 24
Breadth Requirement: 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 plus one C-level half-credit in PSY
Exclusion: PSY430H1 Enrolment Limits: 24

**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 behavior therapy for borderline personality disorder.
Prerequisite: PSYB30H3 & PSYD32H3 plus 0.5 credit at the C-level in PSY
Exclusion: PSY430H1 Enrolment Limits: 24
Breadth Requirement: Social & Behavioural Sciences

**PSYD33H3 Current Topics in Abnormal Psychology**
An intensive examination of selected issues and research problems in abnormal psychology. The specific content will vary from year to year.
Prerequisite: PSYB32H3 plus one C-level half-credit in PSY
Exclusion: PSY440H1
Enrolment Limits: 24

**PSYD34H3 Human Intelligence**
Part I of this course reviews the classical theories as well as past research strategies and findings in the field of human intelligence. Part II examines current work in the area. Part III critically considers the concept of heritability, how it is estimated, and its application to the investigation of individual and group differences on IQ tests.
Prerequisites: PSYB10H3 & [PSYB70H3 or SOCB60H3 or STAB22H3] PSYC08H3
Recommended Preparation: PSYC08H3
Enrolment Limits: 24
Breadth Requirement: Natural 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.
Prerequisites: PSYB65H3 & PSYC62H3
Enrolment Limits: This course is restricted to students in the Mental Health Studies programs.
Breadth Requirement: Natural Sciences

**PSYD50H3 Current Topics in Memory and Cognition**
An intensive examination of selected topics. The specific content will vary from year to year.
Prerequisite: PSYB57H3 plus one C-level half-credit in PSY
Exclusion: PSY470H1, PSY471H1 Enrolment Limits: 24
PSYD5183 Current Topics in Perception
The 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, neuropsychological results, synaesthesia and an introduction to the Bayesian mechanisms of sensory integration.
Prerequisite: PSYB5183 Enrolment Limits: 24

PSYD9893 Seminar in Computational Cognitive Neuroscience
In this course high performing, senior undergraduates participate in a graduate seminar on Computational Cognitive Neuroscience. Each week visiting experts present research on at least two of computation, cognition or neuroscience. Students are expected to read and comment on articles, attend the talks, and write a final paper.
Prerequisite: Minimum cumulative GPA of at least 3.6 & permission of instructor Enrolment Limits: 5

PSYD9893 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 enroll 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: PSYB0103 & PSYB0503 & PSYD0303, Psychology or Mental Health Studies Specialist, cumulative GPA of 3.3 or higher. Note: Registration in D-level courses on BOSR is tentative. This is to ensure spaces in these courses for students who need them to graduate at the end of the current session. ROSR will show your status in the course and its final confirmation.
Exclusion: NRODY8Y3, COGD1003, PSY4009

PLUB2583 Second Language Acquisition
PLUC2403 Speech Perception
PLUC2403 First Language Acquisition
PLUC5583 Psycholinguistics
PLUC5583 Quantitative Methods in Linguistics
PLUD3401 The Psycholinguistics of Reading
PLUD5401 Acquisition of the Mental Lexicon
PLUD5583 Disorders of Speech and Language
These courses may be used in Psychology courses to fulfill Psychology program requirements. (See the Linguistics section of this Calendar for full descriptions):
Religion

Faculty List
D. Perley, B.A. (Carleton), M.A., Ph.D. (Toronto), Lecturer
H.C.H. Shih, B.A., M.A., Ph.D. (Toronto), Lecturer

Program Director: David Perley (416-287-7170) Email: david.perley@utoronto.ca

The Program in Religion aims at fostering a student’s understanding of religion as major expressions of the human condition and as historically powerful forces that shape human cultures and societies. It also seeks to develop a student’s appreciation of the difficulties and possibilities inherent in undertaking a critical, disciplined study of religion. The location of the Program in the Department of Humanities and its connections with a variety of areas of study signal that neither the study of religion nor its data are the privileged possession of a single discipline. The hallmark of the Religion Program at University of Toronto Scarborough is its immediate connection with other programs such as African Studies, Classical Studies, Global Asia Studies, History, IHE, Journalism, Media Studies, Visual and Performing Arts, and Women’s and Gender Studies. The topic also connects the Religion Program with disciplines outside of the Humanities such as Anthropology, English, Philosophy, and Sociology. The uniqueness of the Religion Program lies in its focus on the historical background of religion, themes that relate various religions with one another, and an analysis of the history of the study of religion itself. The Religion Program provides students the opportunity to examine religion as comparative objects of study and teaches students academic forms of discourse in which to interpret and describe religions.

Guidelines for 1st year course selection
Students who intend to complete a Religion program should include RELGA01H3 & RELGA02H3 in their 1st year course selection. Students are also strongly encouraged to take HUMA601H3 (Exploring Key Questions in Humanities) as early as possible in their studies.
The Religion Study Guide is available at: www.utsc.utoronto.ca/~humdiv/prg_re.html

MAJOR PROGRAM IN RELIGION (ARTS)
Undergraduate Advisor: 416-287-7184 Email: religion-undergrad-advisor@utsc.utoronto.ca

The Major Program in Religion is currently under review and new enrolment in it has been suspended indefinitely. Degree students who first enrolled at UTSC prior to the 2010 Summer Session should refer to the 2009/2010 UTSC Calendar.

MINOR PROGRAM IN RELIGION
Undergraduate Advisor: 416-287-7184 Email: religion-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 4.0 full credits as follows:
1. RELGA01H3 World Religions I
   and
   RELGA02H3 World Religions II
2. RELGB10H3 Introduction to the Study of Religion
3. RELGC13H3 Religious Diversity in Speech and Text
   or
   RELGC14H3 Religion and Globalization: Continuities and Transformations
4. 2.0 additional full credits from the following list, with at least 0.5 of a full credit at the C or D-level:

   Comparative Themes/Theoretical Approaches
   RELGB02H3 Living Religions: Rituals and Experiences
   RELGC13H3 Religious Diversity in Speech and Text (if not taken as a required course)
   RELGC14H3 Religion and Globalization: Continuities and Transformations (if not taken as a required course)
   CLAC22H3 Religions of the Ancient Mediterranean
   HISD13H3 The Crusades: I
   HISD44H3 The Crusades: II
   ANTC31H3 Ritual and Religious Action
   ANTC33H3 Conceptualizing Religion
   SOCC21H3 Sociology of Religion

   Religious Traditions in Global and Historical Contexts
   RELGC05H3 The Qur’an in Interpretive and Historical Context
   RELGC06H3 Saints and Mystics in Buddhism
   RELGC07H3 Topics in Buddhist Philosophy: Buddhist Ethics
   RELGC09H3 Islam in Asia
RLGC1013 Hinduism in South Asia and the Diaspora
RLGC1213 Contemporary Engaged Buddhist Movements in Asia
CLA A0513 Ancient Mythology I: Mesopotamia and Egypt
CLA A0613 Ancient Mythology II: Greece and Rome
GASC3313 Critical Perspectives in Global Buddhism

**Religion and Culture**
GASB3013 Asian Religions and Culture
VPHB6713 Religion in the Arts: Buddhist Arts and Cultures
VPHB6713 Religion in the Arts: Hinduism and Buddhism
VPHB6713 Religion in the Arts: Judeo-Christian Traditions
VPMB7713 Music in Religion and Ritual
VPMR4913 Music of the World's Peoples
VPMB7713 Music in Islamic Cultures
ENCJ1613 The Bible and Literature I
ENCJ2613 The Bible and Literature II

**Advanced Topics in the Study of Religion**
RLGC4013 Selected Topics in the Study of Religion I
RLGC4113 Selected Topics in the Study of Religion II
RLGD0013 Seminar in Religion

*Students may also take these courses, but they are advised that these courses have additional pre-requisites.*
the development of Hinduism in the context of colonization.
Prerequisite: RLGA01H3 or (HUMB04H3)
Recommended Preparation: RLGB02H3
Breadth Requirement: History, Philosophy & Cultural Studies

RLGC12H3 Contemporary Engaged Buddhist Movements in Asia
The course will introduce a comprehensive survey of Engaged Buddhism, which calls for the need to apply traditional Buddhist teachings to improve our society. Focus will be on the contemporary engaged Buddhistmovements in Vietnam, Tibet, China & Taiwan, Sri Lanka, Thailand and India.
Same as: GASC12H3.
Prerequisite: RLGA01H3 or (HUMB04H3)
Exclusion: NEW214Y, (RLGB07H3), GASC12H3
Breadth Requirement: 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 Requirement: 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 Requirement: 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 & permission of the instructor Exclusion: HUMC44H3
Breadth Requirement: 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 & permission of the instructor
Exclusion: HUMC43H3
Breadth Requirement: 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 & permission of the instructor

RLGD02H3 Seminar in Religion
A seminar for religion majors in which students have the opportunity, under the supervision of a member of the Religion faculty, to develop and pursue independent research projects focused around a set of texts, topics, and/or problems relevant to the study of religion.
Prerequisite: RLGB10H3 & 2 C-level courses in Religion
Enrolment Limit: 15

Science Engagement
Coordinator: K. Perna Email: science@utsc.utoronto.ca
Website: www.utsc.utoronto.ca/csl/Science_Engagement

Science Engagement is an experiential learning approach to science education. The goal of Science Engagement is to deepen students' understanding of their academic discipline by helping them actively practice scientific concepts and approaches outside of the typical classroom environment. By experiencing the relevance of what they study, students regain an appreciation of and motivation for science learning. Through a range of experiences, we simultaneously help undergraduates reach out to their communities and broaden the way they learn science.

Science Engagement uses the pedagogical approach of "Service Learning" which links discipline-specific concepts and approaches with direct practice through the continual, transformative process of critical reflection. Through Science Engagement, students can carry out their service and actively apply their academic knowledge in either of two ways:

1. Community outreach, where students bring concepts and approaches taught in the science classroom to science interested parties within the off-campus community such as area schools, NGOs, community groups and laboratories or
2. Classroom in-reach, where students deepen their knowledge by using their own educational experience in a completed UTSC undergraduate science course to enrich the learning of students currently in that course.

Students carry out their service learning experience (whether community outreach or classroom "in-reach") through the course SCIB03H3, "Introduction to Service Learning in the Sciences". For placement opportunities and complete application procedures, students should visit the website: www.utsc.utoronto.ca/csl/Science_Engagement
SCIB01H3 Introduction to Service Learning in the Sciences

A service learning course in which students work with science-interested parties and apply discipline-specific academic concepts while in the service of others. Students might work with either (1) the instructor of a course previously taken to enhance the learning of students currently taking that course ("classroom in reach"), or (2) science-interested community partners such as area schools, research laboratories or charitable organizations ("community outreach"). SCIB01H3 involves both 6-2 hrs/wk. placement component and a 2 hrs/wk. in-class lecture component. Problem solving, professional communication and self reflective learning skills will be developed. Evaluation is based on in-class participation, self-reflective writing and experiential portfolio creation.

Limited enrolment: 30
Prerequisite: (1) Completion of 4.0 full credits & (2) selection of a U of T Scarborough major or specialist subject POSI offered by Biological Sciences, Computer & Mathematical Sciences, Physical & Environmental Sciences, or Psychology & (3) acceptance of the Science Engagement application form which can be downloaded from the website, (www.use.utoronto.ca/etl/Science_Engagement), and should be emailed to science@uts.utoronto.ca. GPA and communication skills will also be considered.
Exclusion: (SCIB001H3), (SCIB02H3)

Society and Environment

MAJOR PROGRAM IN SOCIETY AND ENVIRONMENT (ARTS)
The Major Program in Society and Environment has been withdrawn from the curriculum. Every effort will be made to ensure that students currently enrolled in the program are able to complete it.

SCODE01H3 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
W.W. Iajnin, B.A. (LaSalle), M.A., Ph.D. (Catholic Univ. of America), Professor Emeritus
R. O'Toole, B.A. (Leeds), PGCE (London), M.A. (McMaster), Ph.D. (Toronto), Professor Emeritus
A. Seaver, B.A., M.A. (Windsor), Ph.D. (York, Canada), Professor Emeritus
J. Halligan, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Professor
J. Tanner, B.Sc. (London), PGCE (Leicester), M.A., Ph.D. (Alberta), Professor
J. Hennessy, B.A. (Western), M.A., D.Phil. (Oxon.), Associate Professor
P.C. Hui, B.A. (National Chunn-sing), M.A. (Chinese Cultural), M.A., Ph.D. (UCLA), Associate Professor
P. Ladd, B.A., M.A. (York), M.A., Ph.D. (Johns Hopkins), Associate Professor
A. Mullen, B.A. (Berkeley), M.A., Ph.D. (Yale), Associate Professor
S. Unger, B.A. (McGill), M.A., Ph.D. (York, Canada), Associate Professor
K. Liddle, B.A. (Oxford), M.A. (Auburn), Ph.D. (Emory), Assistant Professor
R. Salem, M.A. (Oxford), Ph.D. (Princeton), Assistant Professor
D. Silver, B.A. (Berkeley), M.A., Ph.D. (Chicago), Assistant Professor

Discipline Representative: A. Mullen Email: mullen@utsc.utoronto.ca

Sociology is the scientific study of interaction among people, the social relations which they establish, and the social groups which they form. Sociology explains how society is ordered, how it functions, and what accounts for social cohesion, social stratification, social mobility, and social change. It studies the consequences of co-operation, competition, and conflict.

Students may wish to take Sociology courses as a part of a general education, in anticipation of the usefulness of certain courses in future occupations or professions, or as part of a Specialist, Major or Minor Program.

The introductory courses, SOC0A1H3 and SOC0A2H3, are intended to familiarize students with the distinctive theories, methods and questions of sociology as a part of a liberal education. In addition, the courses provide a minimum background of knowledge about sociology, and hence are a prerequisite to all of the more advanced courses.

Planning a Program in Sociology

Students are obliged to take required courses in the Major and Specialist Programs as early in their careers as possible. For example, SOC0A1H3 and SOC0A2H3 should be taken during the first year, SOC0B05H3, SOC0B06H3, SOC0B2H3 and SOC0B3H3 should be taken during the second year and SOC0C4H3 and SOCC04H3 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 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 the permission of the instructor prior to registration. Instructors have the right to request removal of any student ineligible for enrolment.

SPECIALIST PROGRAM IN SOCIOLOGY (ARTS)

Program Admission

Enrolment in the Specialist Program is limited. Students must normally apply to enter the Program after completing 4 or 5 full credits including SOCIA01H3 and SOCA402H3. Decisions are made on Program admissions only twice a year, in May and in August, and are based on student requests submitted to the Registrar through ROSI. Admission is determined on the basis of a student’s overall GPA and grades in SOCIA01H3 and SOCA402H3. For students applying after 8-10 credits, admission will be on the basis of overall GPA and grades in SOC courses taken. Specialist students will be entitled to priority access to SOCB60H3, SOCB42H3, SOCB43H3, SOCD22H3 & SOCD31H3, for fall-winter sessions, in the summer early registration period.

Program Requirements

The Program requires completion of 12.0 full credits as described below. No more than 14.0 full credits in Sociology may be included in a four-year degree.

1. SOCIA01H3 Introduction to Sociology I
2. SOCB40H3 Introduction to Sociology II
3. SOCB80H3 Logic of Social Inquiry
4. SOCB90H3 Social Statistics
5. SOCB42H3 Classical Sociological Theory I
6. SOCB43H3 Classical Sociological Theory II
7. 2.0 full credits at B-level in Sociology
8. SOCC40H3 Contemporary Sociological Theory Part I
9. SOCC41H3 Contemporary Sociological Theory Part II
10. SOCD31H3 Practicum in Qualitative Research Methods
11. Other SOCD credit in Sociology

Note: Students may substitute courses from cognate disciplines with the prior approval of the program supervisor.

SPECIALIST (CO-OPTATIVE) PROGRAM IN SOCIOLOGY (ARTS)

The Specialist (Co-operative) Program in Sociology has been withdrawn from the curriculum. Every effort will be made to ensure that degree students currently enrolled in the program are able to complete it. Degree students who first enrolled at UTSC prior to the 2011 Summer Session should refer to the 2010/2011 UTSC Calendar.

MAJOR PROGRAM IN SOCIOLOGY (ARTS)

Program Admission

Enrolment in the Major Program is limited. Students must normally apply to enter the Program after completing 4 or 5 full credits including SOCIA01H3 and SOCA402H3. Decisions are made on Program admissions only twice a year, in May and in August, and are based on student requests submitted to the Registrar through ROSI. Admission is determined on the basis of a student’s overall GPA and grades in SOCIA01H3 and SOCA402H3. For students applying after 8-10 credits, admission will be on the basis of overall GPA and grades in SOC courses taken. Major students will be entitled to priority access to SOCB60H3, SOCB42H3 and SOCB43H3 for fall-winter sessions, in the summer early registration period.

Program Requirements

The Program requires completion of 7.0 full credits in Sociology including:

1. SOCIA01H3 Introduction to Sociology I
2. SOCB40H3 Introduction to Sociology II
3. SOCB80H3 Logic of Social Inquiry
4. SOCB90H3 Social Statistics
5. SOCB42H3 Classical Sociological Theory I
6. SOCB43H3 Classical Sociological Theory II
7. 4.0 full credits in Sociology, at least 2.0 of which must be at the C- or D-level

MINOR PROGRAM IN SOCIOLOGY (ARTS)

Program Admission

Admission to the Minor Program in Sociology is not limited. All students who apply for this Program will be admitted. 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 full credits in Sociology including:
1. SOC401H3 Introduction to Sociology I
2. SOC402H3 Introduction to Sociology II
3. SOC403H3 Logic of Social Inquiry
4. SOC404H3 Classical Sociological Theory I
5. SOC405H3 Classical Sociological Theory II
6. 1.5 additional full credits in Sociology including 1.0 at the C-level

**SOC401H3 Introduction to Sociology I**

An introduction to the basic concepts, principles and methods of Sociology as a discipline for the study of society. Sociology I covers theory, methods, culture, social interaction and social stratification.
Exclusion: SOC100Y
Breadth Requirement: Social & Behavioural Sciences

**SOC402H3 Introduction to Sociology II**

Sociology II applies the ideas from Sociology I to social institutions and processes. Topics covered include race and ethnicity, gender, urbanisation, globalisation, population and deviant behaviour.
Prerequisite: SOC401H3
Exclusion: SOC100Y
Breadth Requirement: Social & Behavioural Sciences

**SOC403H3 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: SOC401H3 & SOC402H3
Exclusion: SOC203H1, SOC205Y, (SOC401H3), (SOC403H3)
Enrollment Limits: 170
Breadth Requirement: Quantitative Reasoning

**SOC404H3 Social Statistics**

A consideration of elementary statistics including the summarizing of data, the logic of statistical decision-making and a number of common statistical tests. Statistics is a basic tool used by sociologists. An understanding of statistics is necessary for the student who wants to become an informed reader of social research. A working knowledge of elementary algebra is required. However, the lecturer will undertake brief reviews of mathematics as the need arises.
Prerequisite: SOC401H3 & SOC402H3
Exclusion: ANT235H1, (ECMB09Y3), ECMB11H3, POLB11H3, PSTB07H3, SOC202H3, (SOC301Y), STAR22H3
Enrollment Limits: 170
Breadth Requirement: Quantitative Reasoning

**SOC405H3 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 analyse the constitution and evolution of gendered ideology and practices.
Prerequisite: SOC401H3 & SOC402H3

Breadth Requirement: Social & Behavioural Sciences

**SOC406H3 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: SOC401H3 & SOC402H3
Enrollment Limits: 170
Breadth Requirement: Social & Behavioural Sciences

**SOC407H3 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 Auguste Comte, Herbert Spencer and Karl Marx.
Prerequisite: SOC401H3 & SOC402H3
Exclusion: SOC203Y
Enrollment Limits: 170
Breadth Requirement: History, Philosophy & Cultural Studies

**SOC408H3 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 and Georg Simmel.
Prerequisite: SOC401H3 & SOC402H3 & SOC404H3
Exclusion: SOC203Y
Enrollment Limits: 170
Breadth Requirement: History, Philosophy & Cultural Studies

**SOC409H3 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: SOC401H3 & SOC402H3
Exclusion: SOC205Y
Enrollment Limits: 170
Breadth Requirement: Social & Behavioural Sciences

**SOC410H3 Social Inequality**

A sociological examination of the ways in which individuals and groups have been differentiated and marked 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: SOC401H3 & SOC402H3
Exclusion: SOC301Y
Enrollment Limits: 170
SOCI435H3 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 topics include: socialization; courtship; homosexuality, gay and lesbian relations; gender division of labour, immigrant families; childhood and child-rearing; divorce; domestic violence; elderly care.
Prerequisite: SOCA01H3 & SOCA02H3
Exclusion: SOC242Y
Enrollment Limit: 170
Breadth Requirement: Social & Behavioural Sciences

SOCI505H3 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 intersection. Particular attention will be paid to the role of official knowledge in policing social norms.
Prerequisite: SOCA01H3 & SOCA02H3
Exclusion: SOC242Y
Enrollment Limit: 170
Breadth Requirement: Social & Behavioural Sciences

SOCI506H3 Deviance and Normality II
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 intersection. Particular attention will be paid to the role of official knowledge in policing social norms.
Prerequisite: SOCA01H3 & SOCA02H3
Exclusion: SOC242Y
Enrollment Limit: 170
Breadth Requirement: Social & Behavioural Sciences

SOCI512H3 International Migration and Immigrant Incorporation
This course provides an overview of competing theories and concepts in the field of international migration and immigrant incorporation. Discussion points the Canadian case in comparative perspective.
Prerequisite: SOCA01H3 & SOCA02H3
Exclusion: SOC242Y
Enrollment Limit: 170
Breadth Requirement: Social & Behavioural Sciences

SOCI513H3 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 & SOCA02H3
Exclusion: SOC242Y
Enrollment Limit: 170
Breadth Requirement: Social & Behavioural Sciences

SOCI544H3 Sociology of Work and Industry I
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 & SOCA02H3
Exclusion: SOC207Y, SOC317Y, SOC370Y
Enrollment Limit: 170
Breadth Requirement: Social & Behavioural Sciences

SOCI556H3 Sociology of Work and Industry II
Is it just about the money? This course examines the factors that shape workplace behaviour—the effects of managerial control systems, technology and work groups; the expectations that people have of their jobs. It examines relationships between workers and management, trade unions and industrial conflict. It explores cleavages in the workplace.
Prerequisite: SOCA01H3 & SOCA02H3
Exclusion: SOC207Y, SOC317Y, SOC370Y
Enrollment Limit: 170
Breadth Requirement: Social & Behavioural Sciences

SOCI558H3 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 & SOCA02H3
Exclusion: SOCC18H3, SOCS60Y
Enrollment Limit: 170
Breadth Requirement: History, Philosophy & Cultural Studies

SOCI559H3 Collective Behaviour
The study of unstated institutionalized group behaviour - crowds, panic, riots and the genesis of social movements. The course will explore how social systems can break down and how social order can be maintained.
Prerequisite: SOCA01H3 & SOCA02H3 & (SOCB10H3 or [SOCB40H3] & [SOCBS4H3]) & SOCS42H3 & SOCS43H3
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

SOCI564H3 Social Movements
The development of an approach to social movements which includes the following: the origins of social movements, mobilization processes, the nature of the movement and its routinization. The course readings will be closely related to the lectures, and a major concern will be to link theoretical discussion with the concrete readings of movements.
Prerequisite: SOCA01H3 & SOCA02H3 & [SOCB50H3 or [SOCB40H3] & [SOCBS4H3]] & SOCS42H3 & SOCS43H3
Enrollment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

SOCI581H3 Gender and Information Technology
Examine transformation and perpetuation of gender stratification in relation to information technology (IT). It explores the role of family, ideology, state policies, and other social institutions, and the context of development and globalization. Students will develop and apply analytical skills to understand gender and IT in everyday life.
Prerequisite: SOCA01H3 & SOCA02H3 & [SOCB40H3] & [SOCBS4H3] or (ISTB01H3) or IDS01H3
Exclusion: SOCS36Y
Enrollment Limit: 60
Sociology 273

SOC1093 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.
Prerequisites: SOC1013H & SOC1213H & [SOC1053H or [SOC4053H & (SOC4113H)]] & SOC4203H & SOC4303H
Exclusions: SOC661H1Y
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC1503 Gendered Selves, Gendered Lives and Inequalities
Individuals are socialized to act, think, behave and get treated in ways that are gendered. This course is a critical examination of gender in work, health, education, interpersonal relations, family life and parenthood. Socially constructed inequalities on the basis of gender will be challenged.
Prerequisites: SOC1013H & SOC1213H & [SOC1053H or (SOC4053H & SOC4113H)] & SOC4203H & SOC4303H
Exclusions: SOC661H1Y, SOC357Y
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC1113 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.
Prerequisites: SOC1013H & SOC1213H & [SOC1053H or (SOC4053H & SOC4113H)] & SOC4203H & SOC4303H
Exclusions: SOC230Y, SOC369Y
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC1613 Sociology of Conflict and Co-operation
An examination of the context of global conflicts. This course begins with an examination of the nuclear arms race, then explores how technology, economics, population growth, and environment interact to create interdependencies and afford new opportunities for world order. Special attention is given to North-South relations and to climate change.
Prerequisites: SOC1013H & SOC1213H & [SOC1053H or (SOC4053H & SOC4113H)] & SOC4203H & SOC4303H
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC2193 Sociology of Religion
An examination of religion as a social institution. Consideration of the problem of appropriate definition precedes close analysis of the writings of major classic theorists on the topic of religious belief and practice. The continuing significance of this work in contemporary theory and research is investigated.
Prerequisites: SOC1013H & SOC1213H & [SOC1053H or (SOC4053H & SOC4113H)] & SOC4203H & SOC4303H
Exclusions: SOC250Y, RL1G210Y
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC3493 Changing Family Life in Canada
A theoretical and empirical examination of different forms of family and the major changes in the structure and interaction of family life in Canada. Of special interest are topics like women and work, race/ethnicity and family diversities, declining birth-rates, high divorce rates and new reproductive technologies.
Prerequisites: SOC1013H & SOC1213H & [SOC1053H or (SOC4053H & SOC4113H)] & SOC4203H & SOC4303H
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC3591 Ethnicity, Race and Migration
A theoretical and empirical examination of ethnic identity formation, race and racism, and their relationship to international migration.
Prerequisites: SOC1013H & SOC1213H & [SOC1053H or (SOC4053H & SOC4113H)] & SOC4203H & SOC4303H
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC2693 Sociology of Urban Growth
An in-depth examination of major trends and theories of urban growth from the 19th century to the present. Topics include planning urban utopias (Ebenezer Howard), Le Corbusier, Frank Lloyd Wright, Jane Jacobs urban neighbourhoods, edge cities, new urbanist principles, spectacular consumption spaces, neo-bohemia, urban scenes and the creative city.
Prerequisites: SOC1013H & SOC1213H & [SOC1053H or (SOC4053H & SOC4113H)] & SOC4203H & SOC4303H
Exclusions: SOC368Y
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC2793 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, suburban and social exclusion, and the growth of contemporary suburban forms such as gated communities and lifestyle shopping malls.
Prerequisites: SOC1013H, SOC1213H, SOC1233H, SOC4443H
Exclusions: SOC1093
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC2993 Special Topics in Sociology of Family
A sociological and historical analysis of diverse family forms across the ages and in different geographic locations. How consciousness versus conflict theories account for the changes in family forms and how subsistence patterns such as hunting-
gathering, horticulture, agrarian and industrial patterns shape and alter the family forms and gendered roles will be analyzed. 

Prerequisites: SOCA01H3 & SOCA02H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & SOCB42H3 & SOCB43H3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC329H3 Criminal Behaviour

The young figur prominently in people’s views about, and fear 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 panic.

Prerequisites: SOCA01H3 & SOCA02H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & SOCB42H3 & SOCB43H3
Exclusions: SOC306Y
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC333H3 Comparative Social Structure

A comparative analysis of social systems, social institutions and social organizations which attempts to link the specific to the general and the local to the global in the area of social structure. Attention will be devoted to various case studies.

Prerequisites: SOCA01H3 & SOCA02H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & SOCB42H3 & SOCB43H3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC343H3 Migrations & Transnationalisms

Examine the relationship between contemporary modes of international migration and the formation of transnational social relations and social formations. Consider the impact of transnationalism on families, communities, nation-states, etc.

Prerequisites: SOCA01H3 & SOCA02H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & (SOCB42H3 & SOCB43H3) or SOSS01H3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC359H3 Social Change

An examination of processes of change in social structures, social institutions and social organizations grounded in the investigation of general theories of social transformation. Special attention is devoted to the nature, causes and consequences of socio-cultural changes in the contemporary world.

Prerequisites: SOCA01H3 & SOCA02H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & SOCB42H3 & SOCB43H3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC379H3 Environment and Society

This course links studies in the classical sociology of resources and territory (as in the works of Harold Limits, 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.

Prerequisites: SOCA01H3 & SOCA02H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & SOCB42H3 & SOCB43H3
Exclusions: SOC385H
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC389H3 Gender and Education

An examination of a number of key issues in the sociology of education, focusing particularly upon gender and higher education.

Prerequisites: SOCA01H3 & SOCA02H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & SOCB42H3 & SOCB43H3
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC449H3 Contemporary Sociological Theory Part I

The development of sociological theory from the end of World War II to the late 1960s. Special attention is devoted to the perspectives of Functionalism, Conflict Theory and Symbolic Interactionism.

Prerequisites: SOC401H3 & SOC402H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & SOCB42H3 & SOCB43H3
Exclusions: SOC305Y
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC449H3 Contemporary Sociological Theory Part II

The development of sociological theory from the 1960s to the present. Phenomenological, Socio-Biological, Rational-Choice and other perspectives are explored.

Prerequisites: SOC401H3 & SOC402H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & SOCB42H3 & SOCB43H3 & SOC403H
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences

SOC449H3 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.

Prerequisites: SOC401H3 & SOC402H3 & (SOCB05H3 or (SOCB40H3) & (SOCB44H3)) & SOCB42H3 & SOCB43H3
Exclusions: SOCB46H3, (SOCB57H3)
Enrollment Limits: 60
Breadth Requirement: Social & Behavioural Sciences
SOCD23H3 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.

Prerequisite: 10 credits including SOC201H3, SOC202H3, SOC205H3, SOC304H3 & (a cumulative GPA of at least 2.7 or enrollment in the Specialist Program in Sociology or the Major Program in Public Policy). Exclusion: SOC378H3, (SOCD22H3)

Enrolment Limits: 15
Breadth Requirement: Social & Behavioural Sciences

SOCD31H3 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.

Prerequisite: 10 credits including SOC201H3, SOC202H3, SOC205H3, SOC304H3 & (a cumulative GPA of at least 2.7 or enrollment in the Specialist Program in Sociology or the Major Program in Public Policy). Exclusion: SOC300H3, (SOCD31H3)

Enrolment Limits: 15
Breadth Requirement: Quantitative Reasoning

SOCD40H3
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: Completion of at least 15 full credits including SOC301H3 & SOC302H3 & SOC304H3 & [SOC305H3 or (SOC340H3) & SOC341H3] & SOC342H3 & SOC343H3 & permission of the instructor & permission of the sociology supervisor of studies. Exclusion: SOC390H1, SOC391H1, SOC392H

SOCD42H3 Advanced Seminar in Sociological Theory

Exploration of significant topics of interest in contemporary sociological theory. Designed for and restricted to students enrolled in the final year of the Specialist Program in Sociology. Prerequisite: SOC301H3 & SOC302H3 & (SOC305H3 or (SOC340H3) & SOC341H3) & SOC342H3 & SOC343H3 & SOC344H3 & SOC345H3 & SOC346H3

SOCD44H3 Advanced Seminar on Issues in Contemporary Sociology

Exploration of current debates and controversies surrounding recent scholarly developments. Restricted to final year students taking a Specialist Program in Sociology. Prerequisite: SOC301H3 & SOC302H3 & (SOC305H3 or (SOC340H3) & SOC341H3) & SOC342H3 & SOC343H3 & SOC344H3 & SOC345H3

Statistics

Faculty List
M. Evans, B.Sc. (Western Ontario), M.Sc., Ph.D., Professor
B. Virag, Ph.D. (Berkeley), Associate Professor
K. Butler, Ph.D. (Simon Fraser University), Lecturer
M. Moro, Ph.D. (York), Lecturer
M. Sarmason, M.Sc. (Alberta), Ph.D. (Toronto), Lecturer

Associate Chair: L.C. Jeffrey (416-287-7355)

Probability and statistics have developed over a period of several hundred years as attempts to quantify uncertainty. With its origins in modeling 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 efficiencies 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. STAB27H3 is a mathematical treatment of probability. STAB37H3 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 statistical methodology and of its practical implementation.

Co-operative programs & Concurrent Teacher Education

The Specialist Program in Quantitative Analysis and the Major Program in Statistics are eligible for inclusion in the Co-operative Program in Physical Sciences and in the Concurrent Teacher Education Program (CTEP). Please refer to the Physical Sciences, the Co-operative Programs and the Concurrent Teacher Education sections of this Calendar for further information.

Science Engagement Courses
For science experiential learning through community outreach, classroom in-reach and team research, please see the Science Engagement section of this Calendar.
SPECIALIST PROGRAM IN QUANTITATIVE ANALYSIS (SCIENCE)
Supervisor of Studies: M. Evans Email: evans@utsc.utoronto.ca

The Program in Quantitative Analysis is an interdisciplinary program designed for students interested in applying mathematical ideas and analysis to problems in the biological sciences, social and health sciences, physical sciences, and in finance and risk management. After completing this program students will be well prepared to pursue professional careers in quantitative analysis, go on to professional masters programs in such areas of application or to pursue research degrees in the areas in these fields that require a strong training in quantitative methods.

The program requires 13.0 credits in total. Students will be required to complete a culminating project course in their final year of studies that applies the computational, mathematical, or statistical skills they have acquired. It is strongly recommended that they complete the equivalent of a minor in an area of application. Suggested areas are: Mathematical Finance, Biological Sciences, Physical Sciences, and Social and Health Sciences. The program has streams corresponding to these. Students should select an area of application in consultation with the Supervisor of Studies. For the project course the student needs a supervisor in the appropriate department, also selected in consultation with the Supervisor of Studies.

The Specialist Program in Quantitative Analysis is eligible for inclusion in the Co-operative Program in Physical Sciences and in the Concurrent Teacher Education Program (CTEP). Please refer to the Physical Sciences section, the Co-operative Programs section and the Concurrent Teacher Education section of this Calendar for further information.

Program Requirements
This program requires 13.0 credits including at least 4.0 credits at the C- or D-level of which at least 1.0 must be at the D-level.

Writing requirement (0.5 credits)
(Should be completed by the end of second year.)
One of:

First Year (3.0 credits specified)
CSCA08H3 Introduction to Computer Programming
CSCA48H3 Introduction to Computer Science
CSCA60H3 Mathematical Expression and Reasoning for Computer Science
MAT232H1 Linear Algebra I
MAT233H1 Calculus I for Mathematical Sciences
MAT237H3 Calculus II for Mathematical Scientists

Second Year (4.0 credits specified)
CSCB07H3 Software Design
CSCB34H3 Introduction to the Theory of Computation
CSCB36H3 Design and Analysis of Data Structures
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB44H3 Differential Equations I
STAB37H3 Introduction to Probability
STAB37H3 Introduction to Statistics

Second, Third and Fourth Years
Students should choose a stream during their second year of studies which fits with the area of application that interests them.

Biological and Life Sciences Stream (5.0 credits)
CSCC43H3 Introduction to Databases
CSCD11H3 Machine Learning and Data Mining
MATB42H3 Techniques of the Calculus of Several Variables II
[STAB56H3 Linear Programming and Optimization or]
CSCC73H3 Algorithm Design and Analysis
MATC46H3 Differential Equations II
STAC59H3 Experimental Design
STAC63H3 Stochastic Processes
STAC67H3 Regression Analysis
Multivariate Analysis
Plus 0.5 additional full credits from ACT, CSC, MAT or STA courses at the B-level or above.

Physical Sciences Stream (5.0 credits)
CSC260H1 Numerical Algebra and Optimization
CSC251H3 Numerical Approximation, Integration and Ordinary Differential Equations
MATB42H3 Techniques of the Calculus of Several Variables II
MATB43H3 Introduction to Analysis
MATC34H3 Complex Variables
MATC51H3 Chaos, Fractals and Dynamics
MATC40H3 Differential Equations II
STAC20H3 Stochastic Processes
Plus 1.0 additional full credit from ACT, CSC, MAT or STA courses at the B-level or above, of which at least 0.5 credit must be at the D-level.

Mathematical Finance, Management and Economics Stream (5.0 credits)
ACTB40H5 Fundamentals of Investment and Credit
CSC260H1 Numerical Methods
CSCD11H3 Machine Learning and Data Mining
MATB42H3 Techniques of the Calculus of Several Variables II
MATB61H3 Linear Programming and Optimization
MATC46H3 Differential Equations II
STAC20H3 Stochastic Processes
STAC70H3 Statistics and Finance
STAD70H3 Time Series Analysis

Social and Health Sciences Stream (5.0 credits)
CSC236H3 Numerical Methods
CSC243H3 Introduction to Databases
MATB61H3 Linear Programming and Optimization
STAC52H3 Experimental Design
STAC52H3 Stochastic Processes
STAD70H3 Regression Analysis
STAD70H3 Multivariate Analysis
STAD70H3 Time Series Analysis
Plus 1.0 additional full credits from ACT, CSC, MAT or STA courses at the B-level or above.

Fourth year (9.5 credits)
One of:
CSCD94H3 Computer Science Project
MATD94H3 Mathematics Project
STAD94H3 Statistics Project

MAJOR PROGRAM IN STATISTICS (SCIENCE)
Supervisor of Studies: M. Samarakoon. Email: mahinda@u.nsc.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, (CLA01H3), ENGA10H3, ENGA11H3, ENGB00H3, (ENGB04H3), ENGB06H3, (ENGB07H3, ENGB17H3, ENGB18H3, ENGB19H3), ENGB51H3, (ENGB52H3), GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HIS61H3), HLTA00H3, LNA01H3, (HUMA11H3), (HUMA17H3), (HUMA19H3), (LGGA09H3), PHIA10H3, (PHIA11H3), WSTA01H3.

Program Requirements
This program requires 8.0 full credits.
First Year
[CSCA48H3 Introduction to Computer Science]
or
[PSCB37H3 Introduction to Scientific Computing]
[MATA23H3 Linear Algebra I]
[MATA30H3 Calculus I for Biological and Physical Sciences]
or
[MATA31H3 Calculus I for Mathematical Sciences] and
[MATA36H3 Calculus II for Physical Sciences] or
MAT 273H Calculus II for Mathematical Sciences. Note: The sequence MATA31H3 and MATA37H3 is recommended. MATA21H3 is the pre-requisite for MATA37H3.

Second Year:
MAT 240H3 Linear Algebra II
MAT 241H3 Techniques of the Calculus of Several Variables I
MAT 242H3 Techniques of the Calculus of Several Variables II
STAB 32H3 An Introduction to Probability
STAB 35H3 An Introduction to Statistics

Third and Fourth Year
STAC 30H3 Regression Analysis
2.0 full credits from any C- or D- (or 300-400 on St. George) level courses in STA
1.0 full credit from ACTB 40H3, ACTB 47H3 or any C- or D- (or 300-400 on St. George) level courses in CSC, MAT or STA
* STAB 52H3, STAB 57H3, STAC 50H3 - These courses must be taken at UTSC. No substitutes are permitted without permission of the program supervisor.

MINOR PROGRAM IN STATISTICS (SCIENCE)
Supervisor: M. Samarakoon Email: mahinda@utm.utoronto.ca

Program Requirements
This program requires 4 full credits.

First Year (2.0 credits)
CSC A08H3 Introduction to Computer Programming
MATA 23H3 Linear Algebra I
[MATA 30H3 Calculus I for Biological and Physical Sciences or MATA 31H3 Calculus I for Mathematical Sciences] and [MATA 36H3 Calculus II for Physical Sciences]

MATA 37H3 Calculus II for Mathematical Sciences.

Note: The sequence MATA31H3 and MATA37H3 is recommended. MATA31H3 is the pre-requisite for MATA37H3.

Second Year (1.0 credit)
STAB 32H3 An Introduction to Probability
STAB 35H3 An Introduction to Statistics

Third and Fourth Year (1.0 credit)
STAC 30H3 Regression Analysis
In addition 0.5 credits must be chosen from any C- or D-level STA course but not STAD 29H3.

SPECIALIST PROGRAM IN MATHEMATICS AND ITS APPLICATIONS (SCIENCE)
This program has a Statistics stream. For more information, see the Mathematics section of this Calendar.

SPECIALIST PROGRAM IN NATURAL SCIENCES (SCIENCE)
See the Physical Sciences section of this Calendar for more information.

ACTB 40H3 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 determining 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: [MATA 21H3 & one of MATA 31H3 or MATA 37H3 or MATA 33H3] or [MATA 27H3] & a cumulative GPA of 2.3 or higher

Note: Students enrolled in or planning to enrol in any of the B.B.A. programs are strongly urged not to take ACTB 40H3 because ACTB 40H3 is an exclusion for MGTB 50H3 (MGTC 30H3), a required course in the B.B.A. degree. Students in any of the B.B.A. programs will thus be forced to complete MGTB 50H3 (MGTC 30H3), even if they have credit for ACTB 40H3, but will only be permitted to count one of ACTB 40H3 and MGTB 50H3 (MGTC 30H3) towards the 20 credits required to graduate from UofT Scarborough.
Exclusion: ACT 240H4L, MGTB 50H3 (MGTC 30H3).
Breadth Requirement: Quantitative Reasoning.

ACTB 47H3 Introductory Life Contingencies
This course provides an introduction to insurance and annuity concepts from a mathematical point of view. Topics covered include: probability theory applied to survival and to
cost and risks of life assurances, life annuities, and pensions, analysis of survival distributions, international actuarial notation, annual benefit premiums.
Prerequisite: ACTB401H & MATH441H & STAB52H3
Exclusion: ACT247H
Breadth Requirement: Quantitative Reasoning

STAT242H1 Statistics I
This course is a basic introduction to statistical reasoning and methodology, with a minimal amount of mathematics and calculations. 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: ANTC253H, ECM200WY, ECM1H1Y, POLH1H1, PSYB270H3, SOSC260H3, STAB252H3, STA57H3, STA224H, STA258H
Breadth Requirement: Quantitative Reasoning

STAT27H3 Statistics II
This course follows STAT242H1, 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: STAT242H1
Exclusion: ECM212H1, STA57H3, STA221H1, STA258H
Breadth Requirement: 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: MAT23H3 or MATA36H3 or MATA37H3
Exclusion: STA223H1, STA107H1, STA257H
Breadth Requirement: Quantitative Reasoning

STAC52H3 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: STA261H1
Breadth Requirement: Quantitative Reasoning

STACS21H1 Experimental Design
The statistical aspects of designing and analyzing experimental data. Complete randomization and restricted randomization schemes.
Prerequisite: STAB27H3 or STAB57H3
Exclusion: STAC32H1
Breadth Requirement: Quantitative Reasoning

STAC62H3 Stochastic Processes
This course continues the development of probability theory begun in STAT242H1. Topics covered include Poisson processes, Gaussian processes, Markov processes, renewal theory, queuing theory, martingales and stochastic differential equations.
Prerequisite: STAB57H3
Breadth Requirement: Quantitative Reasoning

STAC63H3 Regression Analysis
Prerequisite: STAB57H3
Exclusion: STAC52H1
Breadth Requirement: Quantitative Reasoning

STAC67H3 Statistics and Finance
The course discusses the use of statistical methods in finance. Topics covered include returns, random walks and the efficient market hypothesis, portfolio theory, the capital asset pricing model, options pricing, value at risk, time series and GARCH models.
Prerequisite: ACTB401H & STAC67H3
Breadth Requirement: Quantitative Reasoning

STAD29H3 Statistics for Life & Social Scientists
The course develops 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: STAB27H3
Exclusion: All C-level-300-level & D-level-400-level STA courses or equivalents except STA223H1
Breadth Requirement: Quantitative Reasoning

STAD65H3 Multivariate Analysis
Prerequisite: STAC67H3
Exclusion: STA457H1, (STAC42H3)
Breadth Requirement: Quantitative Reasoning

STAD67H3 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 time series models, forecasting, seasonal adjustment, spectral estimation. Instruction in the use of SAS.
Prerequisite: STAC62H3
Exclusion: STA457H1, (STAC57H3)
Breadth Requirement: Quantitative Reasoning
STAT9443 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.

Visual and Performing Arts

Faculty List
G. Scavuzzo, M.A., Ph.D. (Tartu), Professor Emeritus
M. S. Shaw, M.A., Ph.D. (Bryn Mawr), Professor Emerita
M. Gerves, A.B. (Princeton), M.A. (Pittsburgh), Ph.D. (Toronto), Professor
W. R. Owen, M.A., Ph.D. (Toronto), Associate Professor
L. Carney, M.A. (Columbia), Associate Professor
E. A. Haney, M. Phil., Ph.D. (London), Associate Professor
J. Mayo, M.A., Ph.D. (Toronto), Associate Professor
M. Q. Schonberg, M.A., Ph.D. (Toronto), Associate Professor
P. Sperdakovs, B.A. (McGill), M.A., Ph.D. (Toronto), Associate Professor
A. Sunbridge, M.A. (Wolverhampton), Ph.D. (Carleton), Associate Professor
B. Freeman, B.A., M.A., Ph.D., Assistant Professor
Y. Gu, B.A., M.A. (Fudan), Ph.D. (Brown), Assistant Professor
S. D. Lee, B.Mus., M.A. (Western), Ph.D. (UBC), Assistant Professor
K. A. Maclean, M.A. (McMaster), Ph.D. (McGill), Assistant Professor
S. L. Helswig, B.A. (Oshawa), M.A. (Toronto), Senior Lecturer
T. Lamie, B.A. (Dalhousie), M.F.A. (York), Senior Lecturer
T. Mann, Senior Lecturer
A. Rapoport, Mus M, Mus. Doc. (Toronto), Senior Lecturer
V. Brotsman, B.A. (Manitoba), B.Ed., M.V. S. (Toronto), Lecturer
T. A. Frost, B.A. (Saskatchewan), M.A. (City University, London), Lecturer
M. Hladé, B.F.A. (Victoria), M.F.A. (York), Lecturer
D. Hnykay, B.F.A. (Ohio State), Lecturer
W. Kwan, B.A. (Toronto), M.F.A. (Colombia), Lecturer
A. Macdonald, B.A. (York), ACCAD, Lecturer
A. Sangster, B.A. (Dartington), Ph.D. (Queen's, Belfast), Lecturer
C. Smith, M.A., Ph.D. (Toronto), Lecturer
L. C. Tuckers, B.Mus, B.Mus. Ed. (Memorial), M.Mus. Min. Ed, M.Mus. Perf (Wisconsin-Madison), Lecturer
E. Webster, B.A., M.A. (Toronto), Ph.D. (Case Western Reserve), Lecturer
I. Whiting, Dip. Op. Perf. (Toronto), Lecturer
K. Wright, Lecturer

Program Supervisor: TBA Email: art-culture-program-supervisor@usc.utoronto.ca

Art history, arts management, music, studio, theatre & performing arts together constitute Visual and Performing Arts. Recognizing that much artistic work crosses the boundaries traditionally seen as separating one art form from another, Visual and Performing Arts invites exploration of the links and commonalities among the arts, in addition to providing opportunities for study in individual art areas.

All students will benefit greatly by going to the many arts events offered at U of T Scarborough, which include exhibitions in the Doris McCarthy Gallery and readings, plays, films and concerts. Event listings may be obtained from Arts & Events Programming (416-208-4769). Students should also consider participating actively in the choir or instrumental ensembles, the student gallery, or in the public productions in the Leighton Browne Theatre. Please contact the program supervisors in music, studio or drama for details.

Specialist Programmes

Arts Management
Art History
Music and Culture
Studio
Theatre & Performance Studies
Minor Programs
Art History
Music and Culture
Studio
Theatre & Performance Studies
See below for Co-op opportunities related to the Specialist Program in Arts Management. For Co-op opportunities related to the Major Programs above, please see the Humanities section of this Calendar. VPA Programs are outlined below. To find descriptions of individual courses see the end of program listings.
The VPA Study Guide is available at: www.utsc.utoronto.ca/~humdiv/program.html

SPECIALIST PROGRAM IN ART AND CULTURE (ARTS)
The Specialist Program in Art and Culture is currently under review and new enrollment in all streams except Studio has been suspended indefinitely. Degree students in the Art History stream, the Curatorial Studies stream, the Music stream and the Theatre and Performance Studies stream, who first enrolled at UTSC prior to the 2011 Summer Session should refer to the 2010/11 UTSC Calendar. Students in the Studio stream should refer to the following.

Program Supervisor: TBA Email: art-cultural-program-supervisor@utsc.utoronto.ca
All prospective students must consult with the program director before enrolling in this program. Students following the Studio stream of this Program should consult the Major Program in Studio for instructions concerning the required courses.

Studio stream
The Specialist in Art and Culture (Studio) requires 14.5 credits, including 4.0 credits at the C- or D-level of which at least 1.0 must be at the D-level as follows:
1. The Major Program in Studio plus
   Two full credits at the A- and/or B-level in Visual and Performing Arts from areas outside of the Studio Major.
2. Core courses required for all streams:
   HUMA02H3 Inquiry and Reasoning in the Humanities
   VPA/A06H3 Visual and Performing Arts in the Digital Age
   VPA/B05H3 Introduction to Contemporary Cultural Theory
   VPA/C03H3 Intermediate Seminar
   VPA/C47H3 The Body in Modernity: Theories and Representations
   VPA/CA8H3 The Body in Contemporary Culture: Theories and Representations
   VPA/D05H3 Senior Project
3. At least 1 additional full credit at the B+, C-, or D-level from the Visual & Performing Arts or another appropriate discipline, chosen in consultation with the Program Director.

VPA/A05H3 Collaborations in the Visual and Performing Arts
An introduction to interdisciplinary collaboration in art and culture. Drawing on a wide range of examples from the disciplines of visual art, music, and theatre, in high art and popular culture, this course explores relationships between and across the arts, tracing the history and development of inter-disciplinarity.
Breadth Requirement: Arts, Literature & Language

VPA/A06H3 Visual and Performing Arts 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

Enrollment Limits: 40. Priority will be given to students in VPA programs, New Media Studies and Humanities (Co-op)
Breadth Requirement: Arts, Literature & Language

VPA/B05H3 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: Any 4 full credits
Breadth Requirement: History, Philosophy & Cultural Studies

VPA/B07H3 Equity and Diversity in Arts Organization
The importance of equity and diversity within Canadian cultural values, and how these challenges are advanced within arts organizations. The development and use of critical tools to assess the values, principles and policies of arts organizations, and strategies aimed at changing these organizations so that they
Art History

Art History at UTSC fuses 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 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 and appreciated. Using recent methodologies that 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.

Note that VPAC47H3, VPHC48H3, and VPAC89H3 are interdisciplinary courses that count toward the art history Major and Minor programs.

Guidelines for first year course selection

Students who intend to complete an Art History program should include HUMA01H3 and an A-level Art History course in their first
Program Requirements

Students must complete 7.5 full credits as follows:

1. HUMA601H3 plus one half credit at the A-level in Art History.
2. VPHB391H3
3. 3.5 full credits in the B-level in Art History. (VPAAB051H3 & (VPAAB061H3) may be used towards this requirement).
4. 2.5 full credits in Art History at the C-D-level (which may include VPAAC470H3, VPAAC480H3, VPAAC590H3, and/or HISC521H3).
5. Requirements 3 and 4 together must include at least one full credit dealing with periods prior to 1800 and one full credit dealing with periods after 1800, and at least one half credit on the art of Africa and Asia.
   - Courses on the art of Africa: VPHB500H3, VPHB503H3
   - Courses on the art of Asia: VPHB531H3, VPAAC740H3, VPHD460H3
   - Courses in which content may vary, and which may deal with the art of any place or period:

Students interested in curatorial studies should include in their programs VPHB711H3, VPHB721H3, VPHC541H3, VPHC721H3, VPHD431H3, and VPHD440H3.

MINOR PROGRAM IN ART HISTORY (ARTS)

Program Supervisor: L. Carney (416-287-7171) Email: art-history-program-supervisor@utoronto.ca

Program Requirements

Students must complete 4.0 full credits from courses below as follows:

1. HUMA601H3 plus one half credit at the A-level in Art History.
2. VPHB391H3
3. 1.0 full credit at the B-level in Art History.
4. 1.5 full credits in Art History at the C- or D-level (which may include VPAAC470H3, VPAAC480H3, VPAAC590H3, and/or HISC521H3).

VPHA460H3 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 art.
Exclusion: FAH100Y3, FAH102H1, FAH105H1
Breadth Requirement: Arts, Literature & Language

VPHB380H3 Ten Key Words in Art History: Unpacking Methodology
Key concepts in art history, including intention, meaning, style, materiality, identity, production, reception, gender, visibility, 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.
Exclusion: FAH102H1
Recommended Preparation: VPAAB051H3
Breadth Requirement: Arts, Literature & Language

VPHB411H3 The Human Figure in Greek Art (8th - 4th Centuries B.C.)
A study of representations of men and women in sculpture and vase painting, two of the richest media in Greek art. This study reveals narratives of myth and legend, reflections of everyday life in Greece, and social values such as the perception of gender.
Exclusion: Any course in art history or VPAAB051H3 or HUMA601H3
Breadth Requirement: Arts, Literature & Language

VPHB421H3 Carolingian and Romanesque Art and Architecture
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.
Exclusion: FAH121H1
Breadth Requirement: Arts, Literature & Language

VPHB440H3 Paris: The Capital of the 19th Century: Impressionism and Post-Impressionism
Impressionist painting as a turning point in Western art, rooted in the rapidly expanding modernized city of Paris, "the
capital of the nineteenth century,* but ultimately turning to landscape as a major source of inspiration. Exclusion: FAH289H1
Breath Requirement: Arts, Literature & Language

VPHB50H3 African Art

Artistic achievements of Egypt and Rome. This course examines Greek architectural design with its concerns for ideal proportion and balance; Roman technical innovations; and Classical painting and sculpture and their enormously influential techniques for creating illusions of the real world.
Prerequisite: VPHA46H3 recommended
Exclusion: (FAH253H1, FAH255H1)
Breath Requirement: Arts, Literature & Language

VPHB52H3 Ancient Art and Architecture (ca. 900 B.C. - 300 A.D.)

The artistic achievements of Greece and Rome. This course examines Greek architectural design with its concerns for ideal proportion and balance; Roman technical innovations; and Classical painting and sculpture and their enormously influential techniques for creating illusions of the real world.
Prerequisite: VPHA46H3 recommended
Exclusion: (FAH253H1, FAH255H1)
Breath Requirement: 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, Medieval and pagan forms; how they developed in an entirely new form of artistic expression in the high Middle Ages; and how they led to the Renaissance.
Exclusion: FAH261H1, (FAH263H1)
Recommended Preparation: VPHA46H3
Breath Requirement: Arts, Literature & Language

VPHB57H3 Women in the Arts: Hot Mamas, Amazons, and Madonnas

Women artists of the last 150 years, their relationships to "mainstream" art, and the influences of feminism on the production and reception of art.
Prerequisite: [WSTA03H3] or [WSTA03H3] or VPHA46H3 or permission of the instructor.
Exclusion: VIS209H1
Breath Requirement: Arts, Literature & Language

VPHB58H3 Modern Art and Culture

Nineteenth and twentieth century art in relation to the modern world. What "modern" means when used to describe art, and how art is affected by the dynamic cultural, economic, social, and political contexts of the modern world.
Exclusion: FAH288H1, (FAH287H1), (FAH288H1)
Breath Requirement: 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.
Exclusion: (FAH289H1)
Breath Requirement: Arts, Literature & Language

VPHB60H3 Canadian Visual Art

What Canadian artists have made in the country's diverse cultural contexts, from 18th century churches of Québec, designed and decorated by talented family studios, to First Nations art and major twentieth century Anglo-Canadian and Québécois painters.
Exclusion: FAH264H1, (VPHB47H1)
Breath Requirement: Arts, Literature & Language

VPHB61H3 Space, Place and the Arts

Artists David Hockney has said that the way we define space has a lot to do with how we behave in it. Here we examine different ideas and assumptions about perspective in painting, performance, installation and other arts, and what these may communicate to us.
Exclusion: FAH190H1, FAH190Y
Breath Requirement: Arts, Literature & Language

VPHB62H3 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 or permission of instructor
Exclusion: FAH213H1, FAH274H1
Breath Requirement: 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 or permission of instructor
Exclusion: FAH231H1, FAH279H1
Breath Requirement: Arts, Literature & Language

VPHB65H3 Exhibiting Africa: Spectacle and the Politics of Representation

Students will read critical texts on the politics of representation, postcolonialism, museology, and institutional critique to apply to the histories of exhibition and reproduction of African arts, in particular, and the arts of non-Western cultures in general.
Prerequisite: VPHA46H3 or APSA01H3 or permission of instructor
Breath Requirement: Arts, Literature & Language

VPHB67H3 Religion in the Arts: Buddhist Arts and Cultures

This course will serve as an introduction to the field of Buddhist art historiography, with an emphasis on the relationships between visual arts, Buddhist philosophy and religion, and the cultural manifestations of the faith and its arts across the world. The classes will take advantage of collections at the ROM.
Same as: GAS287H1
Exclusion: GAS287H1
Breath Requirement: Arts, Literature & Language
VPHB14H3 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.
Breadth Requirement: Arts, Literature & Language

VPHB76H3 Images of Women: East Asian Visual Culture
Images of women in East Asia both provoked and became products of changing ideas of tradition, history and nation. Covering a wide variety of media, including painting, prints, photography, and film, this course examines the role of gender images in politics, the impact of imagery on daily experience, and the relationships among artist, image and viewer.
Same as: GASC87H3
Prerequisite: VPHIA4G3H or GASA0H3, or WSTA03H3
Exclusion: VCC302H, VCC304H3, GASH70H3
Breadth Requirement: Arts, Literature & Language

VPHB75H3 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: VPHIA4G3H
Breadth Requirement: Arts, Literature & Language

VPHB72H3 Museum and Curatorial Practice: Theoretical and Ethical
This course will introduce students to the theoretical contexts of museum practices and explore the ethics of curatorial practice. Students will investigate interpretations of sensitive material, including historical, cultural and religious artworks, and examine case studies of problematic challenges to curatorial responsibilities.
Prerequisite: VPHIA4G3H
Breadth Requirement: Arts, Literature & Language

VPHB73H3 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, textiles, and print. Special attention will be given to social contexts, belief systems, and interregional exchanges.
Same as: GASH73H3
Prerequisite: VPHIA005H3, VPHIA4G3H or GASA0H3
Exclusion: GASH73H3, FAH26H3
Breadth Requirement: 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, aristocratic identity, contacts with other cultures and the development of the art market will be explored in conjunction with new artistic techniques, styles and materials.
Exclusion: FAH251H, FAH274G
Recommended Preparation: VPAIA4G3H
Breadth Requirement: Arts, Literature & Language

VPHB77H3 Religion in the Arts: Hinduism and Jainism
This course explores Eastern religions and artworks, with a specific focus on Hinduism and Jainism in art from India, Pakistan and Sri Lanka. Investigation of context, use, and symbolism, paralleled with the examination of rituals, beliefs and performance. The classes will take advantage of collections at the ROM.
Same as: GASH77H3
Exclusion: VPHB56H3, VPHC35H3, GASH75H3
Recommended Preparation: VPHIA4G3H or RLGIA0H3 or RLGB02H3 or HIS0B7H3 or GASA0H3
Breadth Requirement: Arts, Literature & Language

VPHB76H3 Religion in the Arts: The Judeo-Christian Traditions
This course will address how art gives expression to spiritual beliefs and reflect parousia and iconographic debates operating across the cultures of the Judeo-Christian world. Investigation of context, use, and symbolism, paralleled with the examination of rituals and beliefs. The classes will take advantage of collections at the ROM and the AGO.
Exclusion: VPHB56H3, VPHC36H3
Recommended Preparation: VPHIA4G3H or RLGIA0H3
Breadth Requirement: Arts, Literature & Language

VPHC42H3 Gothic Architecture
The development of Gothic architecture from the beginning of the twelfth century to the middle of the thirteenth century. Emphasis on Notre-Dame in Paris, the cathedrals of Chartres, Reims, and Amiens, and a select number of monuments in England. A discussion of the sculptural programs of these churches will be included.
Prerequisite: One credit in art history at the B-level or permission of the instructor
Exclusion: FAH328H, FAH151J (UTM only), (FAH36H3)
Breadth Requirement: Arts, Literature & Language

VPHC48H3 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 in modern art history at the B-level or permission of the instructor
Breadth Requirement: Arts, Literature & Language

VPHC46H3 Topics in Art of the Ancient World
A special topics course in ancient art and architecture. Concentrated study of a particular topic in ancient art, which will change from year to year.
Prerequisite: VPHB52H3 or permission of the instructor
Breadth Requirement: 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 reviews of individual artists.
Prerequisite: VPHIA4G3H and [VPAIA60H3 or (VPAIA60H3)]
Corequisite: 2.0 credits at the B-level in art history and/or
VPHC515H3 Word and Image
The intersection between modern and contemporary arts and the communicative power of language, the written word and graphic systems. By examining the long-standing, cross-cultural links between the verbal and the visual, we will consider how artists combine narrative content and graphic design of letters, words and conventional and invented inscriptions. Prerequisite: One B-level course in art history or permission of instructor. Breadth Requirement: Arts, Literature & Language

VPHC571H3 Art History
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. Prerequisite: VPHB11H3 & VPHB71H3. Enrollment Limits: 20. Breadth Requirement: Arts, Literature & Language

VPHC731H3 Homos, Away and In Between: Artists, Art, and Identity
The interplay among visual, performing and literary arts and experience of exile, diaspora, displacement and plusskultur. 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: (VPA8R09H3). Breadth Requirement: Social & Behavioural Sciences

VPHC741H3 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-reification 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: GASC741H3. Prerequisite: 2 full credits at the B-level in Art History, Asian History, and/or Global Asia Studies, including at least one of VPHB39H3, VPHB73H3, HSBS85H3, GASS310H3, GASS330H3, or GASS58H3. Exclusion: GASC741H3. Breadth Requirement: Arts, Literature & Language

VPHD41H3 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 an art history program 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

VPHD43H3 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, and administering a public art commission, and critical writing about works of visual art in their various contexts. Studio and/or gallery visits required. Prerequisite: 11.0 credits including VPHB39H3, VPHB71H3 & VPHB72H3. Enrollment Limits: 20. Breadth Requirement: Arts, Literature & Language
Arts Management

SPECIALIST PROGRAM IN ARTS MANAGEMENT (ARTS)

Program Supervisor: S.L. Helvig (416-287-7100) Email: arts-management-program-supervisor@utsc.utoronto.ca

Arts Management is designed for students with an interest both in the arts and in the business of the arts, primarily from a not-for-profit perspective. 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 many other related areas, or for graduate studies in disciplines such as Arts Management, Cultural and Public Policy, and Museum or Curatorial Studies. For further information, see www.utsc.utoronto.ca/bamdiv/pgr_am.html

Program Admission: 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.

Program Requirements: Students complete seven full credits in the arts management core program, two full credits in the management field, six to eight full credits from one or two related fields(a). Continuous consultation with the Program Supervisor is strongly encouraged for all students in each year of their program.

1. Arts Management Core Courses

Students must complete seven full credits as follows:

- a. The following five full credits:
  - VPA110H3 Introduction to Arts Management
  - VPA112H3 Audience and Resource Development
  - VPA115H3 Introduction to Contemporary Cultural Theory
  - VPA127H3 Equity & Diversity in Arts Organizations
  - VPA128H3 Financial Management for Arts Managers
  - VPA153H3 Arts Education and Outreach
  - VPA166H3 Managing and Leading in Arts Organizations
  - VPA169H3 Planning and Project Management in the Arts and Cultural Sector
  - VPA171H3 Cultural Policy
  - VPA172H3 Senior Seminar in Arts Management
  - VPA173H3 Arts Marketing
  - VPA181H3 Fundraising and Development in the Arts
  - VPH313H3 Visual Encounter: The Meeting of Eastern and Western Art

- b. One half credit from the following list:
  - VPA105H3 Introduction to Arts Management
  - VPA110H3 Introduction to Arts Management
  - VPA112H3 Audience and Resource Development
  - VPA115H3 Introduction to Contemporary Cultural Theory
  - VPA127H3 Equity & Diversity in Arts Organizations
  - VPA128H3 Financial Management for Arts Managers
  - VPA153H3 Arts Education and Outreach
  - VPA166H3 Managing and Leading in Arts Organizations
  - VPA169H3 Planning and Project Management in the Arts and Cultural Sector
  - VPA171H3 Cultural Policy
  - VPA172H3 Senior Seminar in Arts Management
  - VPA173H3 Arts Marketing
  - VPA181H3 Fundraising and Development in the Arts

challenges of interpreting through cross cultural, transhistorical frameworks.

Prerequisite: Any 11.0 credits including VPH3A0H3 & VPH3B9H3

VPH346H3 Visual Encounter: The Meeting of Eastern and Western Art

This course explores the cultural construction of vision with a particular focus on the encounters between two cultural systems: Euro-American and East Asian. The collision of West and East yielded dramatic results in the realm of visual culture, altering the ways of seeing.

Same as GASS346H3.

Prerequisite: 11.0 credits, including at least one of VPH3B9H3, VPH374H3, HIS350H3, GASS31H3, GASS33H3, or GASS35H3, and a further 1.5 full credits at the B- or C-level in Act History, Asian History, and/or Global Asia Studies or permission of the instructor.

Exclusion: GASS401H3, GASS456H3

Breadth Requirement: Arts, Literature & Language
c. One half credit from the following list:
   V PAC4983 Performing Arts Management: Principles and Practices
   V PAC2083 Visual Arts Management: Principles and Practices

d. One full credit from the following list:
   V PAC1603 Legal and Human Resource Issues in Arts Management
   V PAC2103 Special Topics in Arts Management I
   V PAC2203 Special Topics in Arts Management II
   V PAD0703 Agency & Pluralism in Social & Cultural Transformations
   V P AO1403 Independent Studies in Arts Management

2. Management Field of Study
   The following two full credits are required:
   a. MGTAR033 Introduction to Management I
   b. MGTAR043 Introduction to Management II
   c. Plus one additional full credit from Management or Economics (normally at the C level)

3. Related Field(s) of Study
   Six to eight full credits, including at least one half credit at the C- or D-level, from one or two related fields of study. These courses must:
   a. Consist of six full credits of those credits required within the Main program in one of the artistic disciplines within Visual or Performing Arts (Art History, Music, Studio and Theatre & Performance Studies). Students choosing this option may wish to take one or two additional credits necessary to complete the major program in place of unrelated elective courses.
   b. Consist of the eight full credits required of two Minor programs, at least one of which must be in a Visual and Performing Arts artistic discipline.

The completion of a major program in a chosen artistic field is particularly valuable for students contemplating graduate studies; additional areas of study (offered by the double minor option) may be valuable in certain fields of work and further studies.

Depending on the option chosen as above (Related Field(s) of Study) students require a further three to five full credits in order to meet the Honours B.A. requirement of twenty credits. Arts Management students are encouraged to use these credits to take courses outside their area(s) of concentration in order to broaden their understanding of contemporary issues and their historical context, to enhance their communication skills and to fulfill the breadth requirements. Arts Management courses that are not chosen to fulfill requirements in 1b, 1e and 1d above may be taken as electives.

Courses in the first two years of the program
The first year of study would normally consist of five full credits (10 courses - five in each of two sessions) including V PA A1003, V PA A1113, M GTAR003, M GTAR013, at least three courses from the related field(s) of study (including HUMA3103), and electives (preferably including HUMA2023). The second year of study would normally consist of five full credits to include V PA A1063, V PA A1133, V PA B1033, V PA B1133, possibly V PA B2073 & V PA B1333, and courses in the related field(s) of study.

SPECIALIST (CO-OPERATIVE) PROGRAM IN ARTS MANAGEMENT (ARTS)
Program Supervisor: S.L. Helvig (416-287-7160) Email: arts-management-program-supervisor@utsc.utoronto.ca
Co-op Contact: sacoop@utsc.utoronto.ca

The Co-operative Program in Arts Management is designed for students with an interest both in the arts and in the business of the arts, primarily from a not-for-profit perspective, and normally requires a four to five years to complete. It combines academic study in a wide variety of subjects with practical paid work experience, preparing 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 many other related areas, or for graduate studies in disciplines such as Arts Management, Cultural and Public Policy, and Museum or Curatorial Studies. For further information, see www.utsc.utoronto.ca/artsmanagement.

For information on admissions, fees, work terms and standing in the Program, please see the Co-operative Programs section of this Calendar.

Note: For information on the Co-operative Program in Humanities or the Management Programs which operate separately from the Specialist (Co-operative) Program in Arts Management, please see the Humanities Co-operative Program or the Management sections of this Calendar respectively.

Program Admission: 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.
Program Requirements: Co-op students follow the course requirements specified above for the Specialist Program in Arts Management, plus the non-credit Arts & Science Co-op Work Term Preparation Course and the completion of two work terms of twelve to sixteen weeks each.

Courses in the first two years of the program
The first year of study would normally consist of five full credits (10 courses - five in each of two sessions) including VPA10H3, VPA12H3, MGT100H3, MGT105H3, at least three courses from the related fields of study (including HUMA10H3), and electives (preferably including HUMA20E3). The second year of study would normally consist of five full credits to include VPA80H3, VPA15H3, VPA16H3, possibly VPA80H3 & VPA13H3, and courses in the related field(s) of study.

Work terms
Two work terms are an integral part of the co-op curriculum. To be eligible for their first work term, students must be in good standing in the program (with a minimum 2.5 cumulative grade point average) and have completed at least 9.0 full credits including:

- Two full credits from Art History, Music, Studio or Theatre & Performance Studies
- VPA10H3 Introduction to Arts Management
- VPA12H3 Audience and Resource Development or (VPA12H3 & VPA14H3)
- MGT100H3 Introduction to Management I
- MGT105H3 Introduction to Management II

Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term.

To be eligible for their second work term, students must be in good standing in the program (with a minimum 2.5 Cumulative Grade Point Average), have completed at least 12.5 full credits and have received a satisfactory evaluation of their performance and work term report for their first placement.

VPA10H3 Introduction to Arts Management
- An introduction to the theories and practices of arts management primarily within the not-for-profit sector. It is a general survey course that will introduce the broad context of arts in Canadian society and provide an overview of the artistic and administrative issues currently faced by the arts and cultural community.
- Breadth Requirement: Arts, Literature & Language

VPA12H3 Audience and Resource Development
- An introduction to the essential and interconnected areas of marketing and fundraising in the arts.
- Prerequisite: VPA10H3
- Exclusion: VPA12H3, VPA14H3
- Breadth Requirement: Arts, Literature & Language

VPA13H3 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.
- Prerequisites: VPA10H3 & (VPA12H3 or VPA14H3)
- Exclusion: MGT100H3
- Breadth Requirement: Social & Behavioural Sciences

VPA15H3 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 VPA10H3
- Breadth Requirement: History, Philosophy & Cultural Studies

VPA16H3 Managing and Leading in Cultural Organizations
- An introduction to the theories and practice of leadership, employee and volunteer management, and organizational behavior as they apply to the not-for-profit arts sector.
- Prerequisite: VPA10H3 & (VPA12H3 or VPA14H3) or permission of instructor
- Breadth Requirement: Arts, Literature & Language

VPA13H3 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.
- Prerequisites: At least 8.0 credits including VPA10H3 & (VPA12H3 or VPA14H3) & (VPA16H3 or MGT12H3)
- Breadth Requirement: Arts, Literature & Language

VPA15H3 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: VPA80H3
- Breadth Requirement: Arts, Literature & Language
VPAC1683 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 VPA1083
Enrollment Limit: 30
Breadth Requirement: Arts, Literature & Language

VPAC1723 Arts Marketing
An advanced study of marketing within the arts and cultural sector. This course facilitates a sophisticated understanding of the knowledge and skills required for an arts manager to be responsive to varied market groups and changing market environments and successfully bring art and audiences together.
Prerequisite: VPA1183 & (VPA1283 & VPA1683) or (VPA1483 & VPA1283)
Breadth Requirement: Arts, Literature & Language

VPAC1823 Fundraising and Development in the Arts
An advanced study of fundraising and resource development within the arts and cultural sector. This course facilitates a sophisticated understanding of the knowledge and skills required for an arts manager to develop and increase contributed revenue to support the artistic mission of cultural organizations.
Prerequisite: VPA1183 & (VPA1783 & VPA1683) or (VPA1483 & VPA1283)
Breadth Requirement: Arts, Literature & Language

VPAC1983 Performing Arts Management: Principles and Practices
An advanced investigation of arts management practice within theatre, music and other live performing arts organizations. This course will allow students to develop discipline-specific knowledge and skills and apply foundational knowledge to an understanding of the unique needs of this sector.
Prerequisite: VPA1083 & at least 2 full credits in Music or Theatre and Performance Studies & VPA11283 or permission of the instructor
Breadth Requirement: Arts, Literature & Language

VPAC2083 Visual Arts Management: Principles and Practices
An advanced investigation of arts management practice within Canadian art galleries, museums and heritage institutions. This course will allow students to build on foundational studies and develop discipline-specific knowledge and skills through experiential methods and objective study.
Prerequisite: VPA1083 & at least 2 full credits in Studio or Art History & VPA1283 or enrollment in Curatorial Studies or permission of the instructor
Breadth Requirement: Arts, Literature & Language

VPAC2123 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 VPA1083, VPA1283, and VPA1683.
Exclusion: VPA1283
Enrollment Limit: 25
Breadth Requirement: Arts, Literature & Language

VPAC2223 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 VPA1083, VPA1283, and VPA1683.
Enrollment Limit: 25
Breadth Requirement: Arts, Literature & Language

VPAD1323 Senior Seminar in Arts 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 VPAC1383.

VPAD1483 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 supervisor in traditional or emerging subjects related to the field of Arts Management.
Prerequisite: At least 1 full credit in Arts Management at the C level. Written consent and approval of a formal proposal in the approved format must be obtained from the supervising instructor and Program Supervisor by the last date of classes in the previous academic session.
Exclusion: MGT3083
Enrollment Limit: 6

Music and Culture

The Music and Culture programs are designed to engage students interested in enriching their knowledge of musical cultures past and present, and deepening their understanding of music as a part of human experience, across historical periods and within different social and cultural contexts. We offer courses in classical, world, and popular music, focused on history/culture, theory/composition, and performance. Programs provide students with a broad knowledge of current directions in the field, and a critical grasp of music's role in society and culture, from local communities to global perspectives.

Guidelines for course selection: Music studies normally begin with VPM470183, VPM500183, and VPM590183, which serve
as the prerequisites for more advanced courses in all areas. These core music program courses are designed for students with RCM Grade II Rudiments or equivalent competence (fluency in reading music notation and tonal music rudiments).

Incoming students must register in the course appropriate to their level of musical training, based on the results of an online music placement test. The placement test is MANDATORY for all students who register for the first time in VPM/A590H3, VPM/A90H3, and VPM/A90H3, and should be completed before the beginning of classes in September. Any student who is not admitted into the initial program courses VPM/A790H3 and VPM/A90H3 on the basis of their placement test results will be advised to take VPM/A90H3 as a preparation for future program study. Students should complete the online placement test, and then register in the appropriate level of course according to the results specified by the test. Enrolment status in VPM/A790H3, VPM/A90H3, and VPM/A90H3 will show as INT until placement results are confirmed. Students who register for these courses without completing the test will be deregistered. Please see the Humanities Music webpage for details and a link to the online placement test:

www.unc.utoronto.ca/~human/div_prog.mch

Note that students should take VPM/A790H3, VPM/A80H3 and VPM/A90H3 within the first year of program study, and that the core music program courses must be taken in appropriate sequence. Normally, an A-level VPM course should not be taken at the same time as, or after, a B-level VPM course. Please do not hesitate to consult Program Supervisors and other faculty members for further advice about course selection and Programs.

Performance Courses

The following performance courses are available to all qualified faculty, staff and students, some on a non-credit basis. Entrance is by interview/ audition held during Orientation or the first week of classes in Fall and Winter sessions. Details are posted on the bulletin board outside AA-303 Music Studio and on the web Study Guide. Credit students should register for the course, but will be admitted only upon successful completion of the interview/audition.

- VPM/A70H3 Vocal Ensemble Ia
- VPM/A71H3 Vocal Ensemble Ib
- VPM/A70H3 Vocal Ensemble Iia
- VPM/A71H3 Vocal Ensemble Iib
- VPM/C70H3 Vocal Ensemble IIIa
- VPM/C71H3 Vocal Ensemble IIIb

There are two separate groups available under Vocal Ensemble. They are identified in the timetable and elsewhere by section numbers as follows:

Concert Choir - Section 01, Jazz Choir - Section 02.
- VPM/A73H3 Instrumental Ensemble Ia
- VPM/A74H3 Instrumental Ensemble Ib
- VPM/A75H3 Instrumental Ensemble Iia
- VPM/A76H3 Instrumental Ensemble Iib
- VPM/C73H3 Instrumental Ensemble IIIa
- VPM/C74H3 Instrumental Ensemble IIIb

There are four separate groups available under Instrumental Ensemble. They are identified in the timetable and elsewhere by section numbers as follows: Concert Band - Section 01, String Ensemble - Section 02, Flute Choir - Section 03, Jazz Band - Section 30.

General Interest Courses


Major and Minor Program Courses

The three core B-level courses, VPM/B80H3 VPM/B82H3, cycle frequently during the three academic sessions. C-level courses are offered on a three-year rotational cycle during the Fall and Winter sessions only.

A-level and C-level Materials of Music courses are normally offered in the Fall session only; B-level Materials are normally offered in the Winter session.

MAJOR PROGRAM IN MUSIC AND CULTURE (ARTS)

Program Supervisor: S. Lee (416-287-7194) Email: music-program-supervisor@utsc.utoronto.ca

Program Requirements

Students are required to complete eight (8.0) credits as follows:

1. HUM/A01H3 Exploring Key Questions in Humanities
2. VPM/A790H3 Introduction to Music and Culture 1
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VMQA080H3 Introduction to Music and Culture II
VMQA091H3 Materials of Music I
VMQA092H3 Music of the World’s Peoples
VMQA093H3 Materials of Music II

2. One and one-half (1.5) credits from the sequence VMQB080H3 to VMQB082H3.
3. One half (0.5) credit chosen from the following courses:
   - VMQB074H3 Music in Islamic Cultures
   - VMQB075H3 Music in Religion and Ritual
   - VMQB076H3 Balinese Gamelan: Performance and Context
   - VMQB077H3 Performing Arts of Asia
   - VMQB080H3 Popular Music in a Cross-Cultural Context

4. Two (2.0) credits chosen from VMQC080H3 and the sequence VMQC080H3 to VMQC091H3. Qualified students may substitute one-half credit from VMDC080H3 to VMDC082H3. Depending on topic, IEEC71H3, (IEEC72H3, IEEC81H3 or (IEEC82H3) may also be substituted with the permission of the program supervisor.

5. One (1.0) full credit in Performance. Students must choose the graded option for this credit.

MINOR PROGRAM IN MUSIC AND CULTURE (ARTS)
Program Supervisor: S. Lee (416-287-7191) Email: music-program-supervisor@uncutoronto.ca

Program Requirements
Students are required to complete 4.0 full credits as follows:

1. VMQA700H3 Introduction to Music and Culture I
2. VMQA800H3 Introduction to Music and Culture II
3. VMQA900H3 Materials of Music I
4. VMQA911H3 Music of the World’s Peoples
5. 1.0 credit from the sequence VMQB080H3 to VMQB082H3
6. 1.0 credit chosen from VMQC080H3 and the sequence VMQC080H3 to VMQC091H3. Depending on topic, IEEC71H3, (IEEC72H3, IEEC81H3 or (IEEC82H3) may also be substituted with the permission of the program supervisor.

VMQA093H3 Chamber Music I
The practical study of small ensemble performance through chamber music repertoire, including public presentations and group recitals. Audition/interview required.
Breadth Requirement: Arts, Literature & Language

VMQA203H3 Vocal Ensemble Ia
The practical study of vocal ensemble performance. There are two available ensembles: Concert Choir (Section 01) and Jazz Choir (Section 02). 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 Requirement: Arts, Literature & Language

VMQA303H3 Vocal Ensemble Ib
A continuation of VMQA203H3.
The practical study of vocal ensemble performance. There are two available ensembles: Concert Choir (Section 02), Jazz Choir (Section 03), and Jazz Band (Section 03). 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: VMQA203H3
Breadth Requirement: Arts, Literature & Language

VMQA374H3 Instrumental Ensemble Ia
The practical study of instrumental ensemble performance. There are four available ensembles: Concert Band (Section 01), String Ensemble (Section 02), Flute Choir (Section 03), and Jazz Band (Section 03). 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: Royal Conservatory of Music Grade II Rudiments or equivalent; online music placement test required.
Breadth Requirement: History, Philosophy & Cultural Studies
VPA80H3 Introduction to Music and Culture II
A continuation of VPA79H3 (Introduction to Music and Culture I). Students are normally expected to complete VPA79H3 and VPA80H3 in the same academic year. Prerequisite: VPA79H3
Breadth Requirement: History, Philosophy & Cultural Studies

VPA88H3 The Language of Music
This course develops students’ understanding of the elements of Western tonal music, emphasizing the ability to recognize sound structures and to read and write them in musical notation. It prepares students for study in the music major and minor programs and provides foundations for a wide range of musical activities. Prerequisite: Online music placement test required. Breadth Requirement: Arts, Literature & Language

VPA89H3 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. Online music placement test required. Prerequisite: Royal Conservatory Grade II Rudiments or equivalent; online music placement test required. Breadth Requirement: Arts, Literature & Language

VPA90H3 Listening to Music
An introduction to the language of music for non-musicians through a survey of musical styles, genres and development of intelligent listening skills. No previous musical experience is necessary. Exclusion: VPA93H3 may not be taken after or concurrently with VPA93H3 or VPA94H3. Breadth Requirement: History, Philosophy & Cultural Studies

VPA90H3 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. Breadth Requirement: Arts, Literature & Language

VPA98H3 Music of the World’s Peoples
An introduction to music from different parts of the world, including folk, popular, religious and classical traditions. This course aims to help students appreciate and understand music as a global phenomenon, and its important role in social and cultural life. Audio-visual materials feature prominently. No previous musical experience is necessary. Exclusion: MUS200H1
Breadth Requirement: Social & Behavioural Sciences

VPM69H3 Chamber Music II
The practical study of small ensemble performance through chamber music repertoire, including public presentations and group recitals. Prerequisite: VPM69H3. Audition/interview required. Breadth Requirement: Arts, Literature & Language

VPM70H3 Vocal Ensemble IIA
A continuation of VPM71H3. The practical study of vocal ensemble performance. There are two available ensembles: Concert Choir (Section 01) and Jazz Choir (Section 02). 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: VPM71H3
Breadth Requirement: Arts, Literature & Language

VPM71H3 Vocal Ensemble IIB
A continuation of VPM70H3. The practical study of vocal ensemble performance. There are two available ensembles: Concert Choir (Section 01) and Jazz Choir (Section 02). 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: VPM70H3
Breadth Requirement: Arts, Literature & Language

VPM73H3 Instrumental Ensemble IIA
A continuation of VPM74H3. The practical study of instrumental ensemble performance. There are four available ensembles: Concert Band (Section 01), String Ensemble (Section 02), Flute Choir (Section 03), and Jazz Band (Section 04). 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: VPM74H3 or (VPM92H3) Exclusion: VPM72H3
Breadth Requirement: Arts, Literature & Language

VPM74H3 Instrumental Ensemble IIB
A continuation of VPM73H3. The practical study of instrumental ensemble performance. There are four available ensembles: Concert Band (Section 01), String Ensemble (Section 02), Flute Choir (Section 03), and Jazz Band (Section 04). 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: VPM73H3 Exclusion: VPM72H3
Breadth Requirement: Arts, Literature & Language

VPM87H3 Music in Islamic Cultures
An exploration of the relationship between music and Islam, and its manifestation in different genres (religious, folk, classical, popular) and regions (from the Middle East to

VPM88H3 Music and Healing
From antiquity to the present day and across the globe, music is used as a means of curing illness. This course will examine music's unique power to restore physical and mental health, both in Western medicine and in more traditional global contexts where it is part of domestic healing ceremonies. Recommended Preparation: VPM49H3. Breadth Requirement: Social & Behavioural Sciences
Indonesia, as well as the global diaspora). This course examines the variety of musical expression within cultures linked by Islamic religion and values. Recommended Preparation: VPM999H3
Breadth Requirement: Social & Behavioural Sciences

VPM877H3 Music in Religion and Ritual
An examination of the role of music in the contexts of religion and ritual in many cultures. We will examine general theories and several ethnographic examples ranging from ancient shamanistic and animistic rituals in Central Asia and Indonesia, to music in Christian, Buddhist, Hindu, and Muslim world religions. Recommended Preparation: VPM999H3
Breadth Requirement: Social & Behavioural Sciences

VPM878H3 Balinese Gamelan: Performance and Context
An introduction to the repertoire 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. Recommended Preparation: VPM999H3
Breadth Requirement: Arts, Literature & Language

VPM879H3 Performing Arts of Asia
An exploration of music, dance and drama in East Asia, Southeast Asia and South-Central Asia with particular reference to religious life, classical genres, tribal and folk traditions and popular/contemporary developments. Recommended Preparation: VPM999H3
Breadth Requirement: History, Philosophy & Cultural Studies

VPM880H3 Music in the Baroque and Classical Eras
An examination of music in Western Society during the period ca. 1600 to ca. 1800. This course integrates close analysis of selected compositions with a study of the historical, social, cultural, and political contexts of music-making during this period. Prerequisite: VPM979H3 & VMAA001H3 & VMAA003H1
Exclusion: VPM878H3
Breadth Requirement: History, Philosophy & Cultural Studies

VPM881H3 Music in the Romantic Era
An examination of music in Western society during the period ca. 1800 to ca. 1900. This course integrates close analysis of selected compositions with a study of the historical, social, cultural, and political contexts of music-making during this period. Prerequisite: VPM979H3 & VMAA001H3 & VMAA003H1
Exclusion: VPM878H3
Breadth Requirement: History, Philosophy & Cultural Studies

VPM882H3 Music in the Modern and Contemporary Eras
An examination of music in Western society during the period ca. 1900 to the present. This course integrates close analysis of selected compositions with a study of the historical, social, cultural, and political contexts of music-making during this period. Prerequisite: VPM979H3 & VMAA001H3 & VMAA003H1
Exclusion: VPM878H3
Breadth Requirement: History, Philosophy & Cultural Studies

VPM904H3 Materials of Music II
A continuation of VPM903H3. Prerequisite: VPM881H3 or Royal Conservatory Grade III harmony or equivalent.
Breadth Requirement: Arts, Literature & Language

VPM935H3 Music for the Theatre
An introduction, across time and cultures, to how music is combined with other arts in the theatre. Breadth topics of study include opera, film music, puppet theatre, dance-drama, ballet and musicals. Students will study audio-visual materials and, where possible, attend live performances. No previous musical experience is required. Recommended Preparation: VMAA003H1 or VMAA099H3
Breadth Requirement: History, Philosophy & Cultural Studies

VPM945H3 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. No previous musical experience is required.
Breadth Requirement: History, Philosophy & Cultural Studies

VPM955H3 Elementary Musicianship II
A continuation of Musicianship I, preparing students for further theoretical studies and/or participation in one of the performance ensembles (Concert Choir, Concert Band, Jazz Choir, Jazz Band, String Ensemble). Prerequisite: VMAA011H3
Breadth Requirement: Arts, Literature & Language

VPM965H3 Popular Music
An examination of the genres and history of twentieth-century popular music with particular attention to its social and commercial contexts. The course will focus on developments during the 1950s and 1960s— including rock & roll, soul, folk-rock, and the British invasion—examining the performing styles and recordings of legendary stars. No previous musical experience required.
Breadth Requirement: History, Philosophy & Cultural Studies

VPM966H3 Film Music
An introduction to the techniques and history of music for film. A survey of the ways music is used in the cinema from its inception to the present day, with an emphasis on the collaboration between film composers and directors. No previous musical experience required
Breadth Requirement: History, Philosophy & Cultural Studies

VPM968H3 Chamber Music III
The practical study of small ensemble performance through chamber music repertoire, including public presentations and group recitals. Audition/ interview required. Prerequisite: VPM966H3
Breadth Requirement: Arts, Literature & Language

VPM970H3 Vocal Ensemble IIIa
A continuation of VPM967H3. The practical study of vocal ensemble performance. There are two available ensembles: Concert Choir (Section 01) and Jazz Choir (Section 02). Audition/ interview required. Students may participate in more than one ensemble concurrently with a limit of 1.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the
same ensemble.
Prerequisite: VPM871H3
Breadth Requirement: Arts, Literature & Language

VPM791H3 Vocal Ensemble IIb
A continuation of VPM791H3.
The practical study of vocal ensemble performance. There are
two available ensembles: Concert Choir (Section 01) and Jazz
Choir (Section 02). 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: VPM790H3
Breadth Requirement: Arts, Literature & Language

VPM753H3 Instrumental Ensemble IIIb
A continuation of VPM754H3.
The practical study of instrumental ensemble performance.
There are four available ensembles: Concert Band (Section
01), String Ensemble (Section 02), Flute Choir (Section 03),
and Jazz Band (Section 30). Audition Interview required. Students
can 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: VPM564H3 or VPM592H3
Exclusion: VPM592H3
Breadth Requirement: Arts, Literature & Language

VPM474H3 Instrumental Ensemble IIIb
A continuation of VPM474H3.
The practical study of instrumental ensemble performance.
There are four available ensembles: Concert Band (Section
01), String Ensemble (Section 02), Flute Choir (Section 03),
and Jazz Band (Section 30). Audition Interview required. Students
can 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: VPM473H3
Exclusion: VPM592H3
Breadth Requirement: Arts, Literature & Language

VPM492H3 Opera
An investigation of opera as a multimedia art form involving
music, drama, and spectacle, through the study of works and
attendance at live performances. The course also examines
opera's entanglement with media and technologies, and the
way social and cultural issues are represented on the
operatic stage.
Prerequisite: VPM389H3 & one course from the series
VPM891H3-VPM892H3 or (VPM894H3-VPM895H3) or
permission of instructor.
Breadth Requirement: History, Philosophy & Cultural Studies

VPM382H3 Topics in Canadian Music
A thematic approach to the study of music in Canada.
Topics include the formation of Canadian musical identity,
the development of artistic organizations and institutions, and
detailed analysis of musical compositions.
Prerequisite: VPM388H3 & one course from the series
VPM890H3-VPM892H3 or (VPM895H3-VPM896H3)
Breadth Requirement: History, Philosophy & Cultural Studies

VPM283H3 Music and Gender
An inquiry into the construction and reflection of gender
and sexual identities in Western music. The course will
emphasize discourses surrounding feminism and the role
of women in music, masculinity studies, and gay, lesbian,
sexual and transsexual studies and their relationships to
musical genres, works, production and reception.
Prerequisite: VPM280H3 & two courses from the sequence
VPM280H3-VPM282H3 or (VPM283H3-VPM285H3)
Exclusion: BMUS207H1
Breadth Requirement: History, Philosophy & Cultural Studies

VPM263H3 Issues, Approaches, and Exchanges in Popular Music
An examination of issues in the study of western and non-
wester popular music and their intersection with other fields
of humanistic inquiry. It will explore models of critical
analysis and questions surrounding ideology, performance,
reception, technology and the relationship of popular music to
other media including cyberspace, film and television.
Same as IIEC381H3.
Prerequisite: At least 1.0 full credit in Humanities at the B-
level.
Exclusion: IIEC381H3
Breadth Requirement: History, Philosophy & Cultural Studies

VPM280H3 Special 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 course website.
Prerequisite: VPM289H3 & one course from the series
VPM281H3-VPM282H3 or (VPM284H3-VPM285H3)
Breadth Requirement: History, Philosophy & Cultural Studies

VPM289H3 Music and Politics
An inquiry into how music functions as a political force
both historically and in contemporary society. Introducing
students to uses of music that both reflect and shape various
political positions, the course draws on methodologies from
political science, history, classical studies, anthropology,
cultural and literary theory.
Prerequisite: At least 1.0 full credit in Humanities at the B-
level.
Breadth Requirement: History, Philosophy & Cultural Studies

VPM296H3 Materials of Music III
A continuation of VPM296H3, with an emphasis on
analysis.
Prerequisite: VPM298H3
Breadth Requirement: Arts, Literature & Language

VPM351H3 Introduction to Electronic Music
An introduction to understanding electronic,
electroacoustic and computer generated music and developing
creative skills in these media through theoretical, aesthetic,
and practical perspectives.
Prerequisite: VPM295H3, and at least one other VPM course
at the B-level
Recommended Preparation: VPM294H3
Enrollment Limits: 12
Breadth Requirement: Arts, Literature & Language
VPMCS3H3 Orpheus
An examination of the myth of Orpheus and the variety of interpretations it has inspired in music and the other arts.
Prerequisite: Two courses from the series VPMB10H3-VPMB19H3
Exclusion: VPMCS72H3
Recommended Preparation: VPMB19H3
Breadth Requirement: History, Philosophy & Cultural Studies

VPMCS5H3 Musical Diasporas in Canada and the USA
This course examines the unique role of music and the arts in the construction and maintenance of national identity in the North American diaspora. Examples under study will cover a wide range of communities (e.g. Asian, Caribbean and African) and places (e.g. Los Angeles, Toronto and Detroit).
Prerequisite: VPMCS9H3 & 1.0 full credit in VPM courses at the B-level or permission of instructor.
Breadth Requirement: Social & Behavioural Sciences

VPMCS6H3 Music in the Medieval and Renaissance Eras
An examination of music in Western society during the period ca. 500 to ca. 1600. This course integrates close analysis of selected compositions with a study of the historical, social, cultural, and political contexts of music-making during this period.
Prerequisite: VPMCS9H3 & 2 courses from VPMB10H3-VPMB29H3
Exclusion: VPMCS68H3
Breadth Requirement: History, Philosophy & Cultural Studies

VPMCS7H3 Music, Technologies, Media
An exploration of music's relationships to media and technology, and how these shape musical practices.

VPMDC3H1 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 (Concert Choir, Concert Band, Jazz Choir, Jazz Band, String Ensemble).
Note: Students must submit a proposed plan of study for approval, and must obtain consent from the supervising instructor and the music program supervisor.
Prerequisite: A minimum overall average of B+ in VPM courses, and at least 1.0 full credit in music at the C-level, not including credits in performance. Students in the Composition option must also have completed VPMCS0H3. Students in the Performance/research option must also have completed VPMCS7H3 or VPMCS4H3. Students are strongly advised to arrange their independent study well in advance of the beginning of the session.

VPHCS8H3 Sound and Spectacle: Intersections and Exchanges in Music and the Visual Arts
See the general Visual and Performing Arts section of this Calendar for a full course description.

Studio

The Studio program at UTSC offers courses in drawing, painting, sculpture, photography, performance art, video, new media, and conceptual practices. Students can also take specialized courses in digital imaging, sound art, 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 students develop a foundation 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.

Our 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 curating, and study the history of art from various cultural and historical viewpoints. The wide range of artistic experiences offered by the UTSC Studio program provides a rigorous general visual arts education for students interested in careers in the cultural and design sectors. Studio also offers focused preparation for students interested in pursuing advanced visual art study at the graduate level.

The Studio program is connected to the department of Visual and Performing Arts, 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.

Guidelines for 1st year course selection

VPSA62H3 Foundation Studies in Studio, which covers basic media and concepts through practice and discussion, must be taken with its co-requisite VPSA63H3 But Why Is It Art? Before advancing to other studio courses. Students will be expected to purchase the materials necessary for each course. An estimate of the costs is available from the Program Supervisor or the Instructor.
The Studio Study Guide is available at: www.arts.utoronto.ca/~humdiv/psg_st.html

MAJOR PROGRAM IN STUDIO (ARTS)

Program Supervisor: Until June 30: D. Hlynysky (416-287-7139); From July 1: T. Mars (416-287-7137)
Email: studio-program-supervisor@arts.utoronto.ca

This program will give the student a full and broad exposure to the various processes of art-making and to recent developments in art criticism. It provides some preparation for teaching at the high school or elementary level.

We strongly urge students to take additional art history courses dealing with modern and contemporary art.

Program Requirements
Students must complete eight full credits including:
1. VPSA62H3 Foundation Studies in Studio
   VPSA63H3 But Why Is It Art?
2. HUMA01H3 Exploring Key Questions in Humanities
3. VPHA01H3 Ways of Seeing: Introduction to Art History
4. VPSA70H3 Drawing I
   VPSB74H3 Drawing II
5. At least one-half credit from:
   VPSC06H3 Theory and Practice: Two-Dimensional Work
   VPSC08H3 Theory and Practice: Time-Based Work
   VPSC09H3 Theory and Practice: Art in a Globalizing World
   VPSC10H3 Theory and Practice: New Media in Studio
6. An additional half credit at the C-level and one full credit at the D-level.
7. 3.5 additional credits from courses in VPS. Students may substitute one full credit from VPA or another discipline with the PRIOR written permission of the Program Supervisor.

MINOR PROGRAM IN STUDIO (ARTS)

Program Supervisor: Until June 30: D. Hlynysky (416-287-7139)
From July 1: T. Mars (416-287-7137) Email: studio-program-supervisor@arts.utoronto.ca

Program Requirements
Students are required to complete a total of four full credits as follows:
1. VPSA62H3 Foundation Studies in Studio
   VPSA63H3 But Why Is It Art?
2. HUMA01H3 Exploring Key Questions in Humanities
3. VPSA70H3 Drawing I
4. At least one-half credit from:
   VPSC06H3 Theory and Practice: Two-Dimensional Work
   VPSC08H3 Theory and Practice: Time-Based Work
   VPSC09H3 Theory and Practice: Art in a Globalizing World
   VPSC10H3 Theory and Practice: New Media in Studio
5. 1.5 credits in VPS, including 1 full credit at the C- or D-level.
VPSA6163 Painting I
An investigation of the basic elements and concepts of painting through experimentation in scale and content.
Prerequisite: VPSA6263 & VPSA6363H & [VPSA7063H or VPSB7063H]
Exclusion: VPSB6163H, VIS2201H
Enrollment Limits: 20 per section
Breadth Requirement: Arts, Literature & Language

VPSA6263 Foundation Studies in Studio
An introduction to the importance of context and content in the making of contemporary art.
Corequisite: VPSA6363H
Exclusion: VIS2301H
Enrollment Limits: 20 per section
Breadth Requirement: Arts, Literature & Language

VPSA6363H 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 at such a wide-ranging set of forms, media, and approaches.
Exclusion: VIS2120H
Breadth Requirement: History, Philosophy & Cultural Studies

VPSA6706 Drawing I
An investigation of the various approaches to drawing, including working from the figure and working with ideas.
Exclusion: VPSB7063H, VIS2205H
Recommended Preparation: It is recommended that students take VPSA6263H & VPSA6363H at the same time or before taking this course, particularly if they want to pursue a Major or Minor in Studio.
Enrollment Limits: 20 per section
Breadth Requirement: Arts, Literature & Language

VPSA6716 Introduction to Sculpture
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: VPSA6263H & VPSA6363H
Enrollment Limits: 15. Preference will be given to students in Arts Management Co-op, Humanities Co-op, Studio and VPA specialist programs.

VPSA6726 Introduction to Photography
An introduction to fundamental photographic concepts including depth, focus, stoppage time, lighting and photographic composition in contrast to similar fundamental concerns in drawing and painting. A practical and historical discussion on the primary conceptual streams in photography including various documentary traditions, staged photographs and aesthetic approaches from photographic modernism to postmodernism.
Prerequisite: VPSA6263H & VPSA6363H
Corequisite: VPSA7463H
Enrollment Limits: 20. Preference will be given to students in Arts Management Co-op, Humanities Co-op, Studio and VPA specialist programs.
Breadth Requirement: Arts, Literature & Language

VPSA7363 Introduction to Video
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: VPSA6263H & VPSA6363H
Exclusion: VIS2021H
Enrollment Limits: 15. Preference will be given to students in Arts Management Co-op, Humanities Co-op, Studio and VPA specialist programs.
Breadth Requirement: Arts, Literature & Language

VPSA7463 Introduction to Digital Studio Practice
An introduction to pixel and vector-based, two-dimensional image processing, printmaking and web illustration. Basic digital skills and quality control issues will be addressed through studio investigation of Adobe Photoshop and the production of professional digital prints.
Prerequisite: VPSA6263H & VPSA6363H
Exclusion: VIS2121H
Enrollment Limits: 20
Breadth Requirement: Arts, Literature & Language

VPSB6263 Painting II
A continuation of Painting I with an emphasis on images and concepts developed by individual students.
Prerequisite: VPSA6163H or [VPSB6163H]
Exclusion: VIS2201H
Enrollment Limits: 20
Breadth Requirement: Arts, Literature & Language

VPSB6363H Sculpture Concepts
Contemporary sculptural practice is a diverse and expanding field that covers a range of strategies that confound traditional definitions of sculpture and blur the boundaries with other contemporary art forms. We will explore key ideas that transform sculpture into three-dimensional practices that embrace time, found material, architecture and audience interaction.
Prerequisite: VPSA6263H & VPA6363H and 0.5 full credit in Studio at the A-level
Exclusion: VIS2041H
Enrollment Limits: 15
Breadth Requirement: Arts, Literature & Language

VPSB7163 Books and Multiples
Exploring the production, luxury and use of artists’ books, students will focus on visuals and text, incorporating low-tech and printmaking approaches to multiples.
Prerequisite: VPSA6163H or VPSA7163H or VPSA7263H or VPSA7463H
Exclusion: VIS2211H
Enrollment Limits: 20
Breadth Requirement: Arts, Literature & Language

VPSB7463 Drawing II
A continuation of VPSA7063 with an increased emphasis on the student’s ability to expand her/his personal understanding of the meaning of drawing.
Prerequisite: VPSA6263H & VPSA6363H & [VPSA7063H or VPSB7063H]
Exclusion: VIS2111H Enrollment Limits: 20
Breadth Requirement: Arts, Literature & Language
VPSS75H3 Photo-based Work
A studio course in digital photography as it relates to the critical investigation of contemporary photo-based art.
Prerequisite: VPSA72H3 & VPSA74H3
Corequisite: VPSA80H3
Enrollment Limit: 15
Breadth Requirement: Arts, Literature & Language

VPSS76H3 Intermediate Video
This course is designed to provide a history of contemporary video art production. The course will familiarize students with more advanced methods of production and contemporary video works. Classes will include technical instruction, screenings and discussions of tapes, critiques, written assignments and assigned readings.
Prerequisite: VPSA73H3
Exclusion: VISP30H1
Enrollment Limit: 15
Breadth Requirement: Arts, Literature & Language

VPSS77H3 Introduction to 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: One half credit in VPS or [VPA1A(H1) & VPA1A(H1)] or [VPA0A(H3) & VPA0A(H3)]
Exclusion: VISP20H1
Enrollment Limit: 15
Breadth Requirement: Arts, Literature & Language

VPSS86H3 Digital Studio Practice
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 re-touching 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: VPSA48H3
Exclusion: VISP31H3
Recommended Preparation: VPSA72H3
Enrollment Limit: 20
Breadth Requirement: Arts, Literature & Language

VPSS82H3 Introduction to Web-based Work
Information Age artists are employing inexpensive, global, web-based strategies to publish and promote their work. Other artists use blogs and desktop broadcasting to produce original, on-line events that can engage distant and critical collaborations in real-time. Artists will each create an elementary, personal web site towards these ends.
Prerequisite: VPSA74H3
Enrollment Limit: 20
Breadth Requirement: Arts, Literature & Language

VPSS83H3 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: VPSA62H3 & VPSA63H3 & 0.5 full credit in Studio at the A-level
Exclusion: VISP30H1 Enrollment Limit: 20
Breadth Requirement: Social & Behavioural Sciences

VPSS85H3 Text as Image/Language as Art
An elementary study of the typographic arts will inform presentation strategies, but the investigation of critical cultural discourse through language as visual art will form the most important content of this course. How do visual artists employ words in their art?
Prerequisite: VPSA62H3 & VPSA63H3 & 0.5 full credit in Studio at the A-level
Enrollment Limit: 20
Breadth Requirement: Arts, Literature & Language

VPSS88H3 Sculpture and Technology
Students will be introduced to the basic techniques and practicalities of working with the concept of change as it relates to sculpture. Students will use both traditional and non-traditional materials in combination with technologically based media and processes including such things as simple computers, machines, switches, LEDs, etc.
Prerequisite: VPSA62H3, VPSA63H3 and 0.5 FCE at the A-level in Studio
Enrollment Limit: 15
Breadth Requirement: Arts, Literature & Language

VPSS75H3 Documentary Photography
Photography has a rich tradition both as an art form and as a documentary practice. Each of these has engendered its own unique aesthetic and cultural context. This course is designed to introduce students to the documentary branch of photography through focused, personal, photo-journalistic projects accomplished outside of the studio.
Prerequisite: VPSA72H3 & VPSA74H3
Recommended Preparation: VPSA75H3
Enrollment Limit: 20
Breadth Requirement: Arts, Literature & Language

VPSS88H3 Introduction to Sound Art
Students will be introduced to sound as a medium for artistic 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 & VPSA63H3] or VPMAM0H1
Enrollment Limit: 20
Breadth Requirement: Arts, Literature & Language

VPSS89H3 Introduction to Animation Techniques
This studio course is designed to introduce students to animated film/video making. Students will explore handmade and digital animation techniques (cut-out, flip-books, scanned film, claymation, rotoscope and other forms of digital animation). Readings, screenings and assignments practically and theoretically familiarize students with the animated image from its early beginnings.
Prerequisite: VPSA62H3 & VPSA63H3 & VPSA70H3 & VPSA73H3 Enrollment Limit: 20
Breadth Requirement: Arts, Literature & Language
VPSC50H3 Documentary Video
This course is designed to introduce students to documentary video/making. Students will gain insight into the history and evolution of the genre through in-class screenings, readings, field trips and assignments. The course will provide students with the means to research, develop, and produce a short documentary film/video work. Prerequisite: VPAA46H3 & VPSA73H1 & VPSB76H3
Enrollment Limit: 20
Breadth Requirement: Arts, Literature & Language

VPSC53H3 Kinetic Sculpture
Students will produce art projects using mechanical principles to create sculptural forms that change over time. Students will be encouraged to use altered machines, simple electronic components and a wide range of materials.
Prerequisite: VPAA46H3 & VPSB80H3 and 1.0 full credit at the B- and/or C-level in Studio. Exclusion: VPSB64H3
Enrollment Limit: 15
Breadth Requirement: 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: VPAA46H3 & VPSC54H3 & VPSB62H3 & VPSB74H3 & an additional 0.5 credit at the B- or C-level in Studio Exclusion: VISB10H1
Enrollment Limit: 15
Breadth Requirement: 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: VPAA46H3 & VPSC54H2 & an additional 0.5 credit in Studio at the B- or C-level.
Exclusion: VISB30H1
Enrollment Limit: 20
Breadth Requirement: 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: VPAA46H3 and 3.5 credits in Studio including at least 1.0 full credit at the B- and/or C-level in the area of study.
Exclusion: VISB31H1
Enrollment Limit: 20
Breadth Requirement: Arts, Literature & Language

VPSC58H3 Advanced Photo Concepts
Focusing on both theory and practice, this is a portfolio-based course aimed at the development of idiosyncratic photographic styles and subject matter. Printing and presentation will form an important part of this portfolio’s development. Students will research international networks, publications and institutions devoted to photographic discourse.
Prerequisite: VPAA46H3 & VPSB80H3 & VPSB75H3
Exclusion: VISB10H1
Enrollment Limit: 15
Breadth Requirement: Arts, Literature & Language

VPSC59H3 Advanced Installation and Site-Specific Art
This course will focus on all aspects of large-scale installation including architecture, projections, multi-media, and conceptual works.
Prerequisite: VPAA46H3 and 1.0 full credit at the B- and/or C-level in Studio.
Exclusion: VISB30H1
Enrollment Limit: 15
Breadth Requirement: Arts, Literature & Language

VPSC60H3 Advanced Video
An advanced course focusing on complex video techniques and contemporary presentation strategies. The course will cover such areas as video projection, multi-channel works, feature length projects and advanced post-production techniques.
Prerequisite: VPAA46H3 & VPSB76H3 & 1.0 additional full credit at the B- or C-level in Studio.
Exclusion: VISB30H1
Enrollment Limit: 15
Breadth Requirement: 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: VPAA46H3 and at least 1.0 full credit at the B- or C-level in courses dealing with two dimensions.
Exclusion: VISB21H1
Enrollment Limit: 15
Breadth Requirement: 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: VPAA46H3 and 1.0 full credit in VPS at the B- or C-level in courses dealing with time-based media.
Exclusion: VISB30H1
Enrollment Limit: 15
Breadth Requirement: 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 orientation, 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: VPAA46H3 & 1.0 full credit in Studio at the B- or C-level
Exclusion: VISB25H1
Enrollment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

VPSC70H3 Theory and Practice: New Media in Studio
Information technologies are radically and rapidly transforming our culture. Networking, robotics, WiFi, GPS, ubiquitous computing, data mining, RFID, biotech, kinetic art, 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: VPA446H3 & [VPSB60H3 & VPSB75H3 or VPSB76H3 or VPSB82H3 or VPSC55H3 or VPSC69H3 or VPSC74H3] & 0.5 additional credit at the B- or C-level in Studio.

Enrollment Limits: 15

Breadth Requirement: Arts, Literature & Language

VPSG7101D Performing with Camera

This course investigates the relationship of the body to the camera. Using both still and video cameras 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: VPA446H3 & [VPSB77H3 or VPDH01H3 & VPDH02H3] & [VPSB87H3 or VPSB90H3 or VPSC59H3 or VPSG60H3]

Enrollment Limits: 15

Breadth Requirement: Arts, Literature & Language

VPSG7301H Interdisciplinary Drawing Concepts

Interdisciplinary Drawing Concepts will extend drawing into a range of other media, allowing students to explore a broad spectrum of expression within a multifaceted approach to the visual arts.

Prerequisite: VPA446H3 & VPSB74H3 & 0.5 additional credit at the B- or C-level in Studio.

Exclusion: VIS323H

Enrollment Limits: 15

Breadth Requirement: Arts, Literature & Language

VPSG7401H Advanced Web-Based Projects

This studio course will encourage students to refine basic web design skills developed in Intro to Web by exploring web-based communities, social networks, blogging, video sharing sites and other collaborative projects. Course assignments, readings and in-class discussions foster an increased criticality about web culture, interactivity and the interface of authorship.

Prerequisite: VPA446H3 & VPSB92H3 & 1.0 additional full credit at the B- or C-level in Studio

Enrollment Limits: 15

Breadth Requirement: Arts, Literature & Language

VPSG7501H Advanced Sculpture

Advanced Sculpture will provide students with an opportunity to pursue the theory and practice of sculpture making through studio assignments that develop a critical and technical literacy towards both traditional and non-traditional sculpture materials.

Prerequisite: VPA446H3 & VPSA71H3 or VPSB63H3 or VPSB86H3 & 1.0 full credit at the B- or C-level in Studio.

Enrollment Limits: 15

Breadth Requirement: Arts, Literature & Language

VPSG7550H1 Advanced Special Topics in Studio

Selected topics for intensive practical and theoretical study in studio. Topics will change from session to session.

Prerequisite: 1.5 full credits at the C- and/or D-level in Studio

Exclusion: VIS4041H, VIS4042H, VIS4043H, VIS4044H, VIS4045H, VIS4046H

Enrollment Limits: 20

VPSG7601H 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 final exhibition in the student-run gallery. Students may work in their choice of media with the written permission of the instructor.

Prerequisite: 1.5 full credits in Studio at the C- and/or D-level

Exclusion: VIS3501H, VIS4011H, VIS4022H, VIS4023H, VIS4032H, VIS4044H

Enrollment Limits: 20

VPSG7610H Advanced Seminar: Interdisciplinary Practice

An opportunity for students in VPS to explore aspects of contemporary interdisciplinary practice and theory. Students will make work in their choice of media with the written permission of the instructor.

Prerequisite: 1.5 full credits at the C- and/or D-level in Studio

Exclusion: VIS4011H, VIS4022H, VIS4031H, VIS4044H

Enrollment Limits: 20

VPSG7620H 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- and/or D-level in Studio including VPSG69H3 or VPSG76H3 or VPSG68H3 or VPSG69H3 or VPSG70H3.

Exclusion: 15

Enrollment Limits: 15

VPSG7640H Advanced Seminar: Three-Dimensional Work

This studio seminar will address contemporary issues in sculpture and installation art through independent art production, research, discussion and assigned readings. Students are expected to develop a body of exhibition quality work and professional support materials.

Prerequisite: 1.5 full credits at the C-level in Studio including [VPSG69H3 or VPSG76H3] or VPSG68H3 or VPSG69H3 or VPSG70H3.

Exclusion: 15

Enrollment Limits: 15

VPSG7650H 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 1.5 credits and completion of the major in studio & written permission of the instructor in the previous semester.

Exclusion: VIS4011H, VIS4022H, VIS4031H, VIS4044H

VPHD4301H Curating Contemporary Art

See Art History in the Visual and Performing Arts section of this Calendar for a full course description.

Exclusion: (VPSG75H3)
Theatre and Performance Studies

The Theatre and Performance Studies Program has been devised to serve students who intend to major or minor in Theatre and Performance, students who intend to specialize in Visual and Performing Arts, and students who have a casual interest in theatre and performance studies.

We offer both historical and contemporary theory-based and practical courses, which provide students with opportunities to investigate aspects of theatre and performance from the origins of theatre to contemporary performance practice. In the practical courses, students acquire experience in elements of theatre production, as actors, directors, and technicians; class work leads to performance opportunities in the Leigh Lee Browne Theatre.

In order to be admitted into the performance side of the program, students must successfully complete VPDA10H3 Introduction to Theatre.

Guidelines for 1st year course selection

Students who intend to complete a Theatre and Performance Studies program should include HUMA01H3, VPDA10H3 & VPDA11H3 in their 1st year course selection.

The Theatre and Performance Studies Program Study Guide is available at: www.utsc.utoronto.ca/~humdv/tpg_dr.htm

MAJOR PROGRAM IN THEATRE AND PERFORMANCE STUDIES (ARTS)
Program Supervisor: P. Spartalakis (416-287-7165) Email: ttpa.program.supervisor@utsc.utoronto.ca

Program Requirements: Students must complete 8.0 full credits as follows:

1. HUMA01H3 Exploring Key Questions in Humanities
2. VPDA10H3 Introduction to Theatre
   VPDA11H3 Introduction to Performance
   VPDA10H3 Intermediate Workshop in Performance I
   VPDA12H3 Intermediate Workshop in Performance II
3. VPDA09H3 Experiencing the Live Theatre
4. VPDA10H3 Studies in Theatre History I: From the Greeks to 1642
   VPDA11H3 Studies in Theatre History II: From 1642 to World War One
   VPDA12H3 Studies in Modern and Contemporary Theatre
   [VPDA13H3 Theatre in Canada
   or
   ENGC07H3 Canadian Drama]
5. ENGC26H3 Drama: Tragedy
   ENGC27H3 Drama: Comedy
6. 1.5 additional credits in VPD, one full credit of which must be at the C- or D-level.
   In fulfilling requirement #5, students may substitute one full credit from VPA or another discipline with the Supervisor's written permission. The following courses are particularly recommended:
   VPBB27H3 Introduction to Performance Art
   VPM279H3 Performing Arts of Asia
   VPM279H3 Music for the Theatre
   ENGB14H3 Twentieth-Century Drama
   ENGB32H3 Shakespeare in Context I
   ENGB33H3 Shakespeare in Context II
   (ENGB62H3) Creative Writing: Scripts and Drama
   ENGB70H3 Introduction to Cinema
   IEEC71H3 Exchanges in Performance and the Arts I
   IEEC72H3 Exchanges in Performance and the Arts II
   IEEC81H3 Issues, Approaches and Exchanges in Popular Music
   IEEC82H3 Exchanges in Music and Media II
   VPAC47H3 The Body in Modernity: Theories and Representations
   VPAC48H3 The Body in Contemporary Culture: Theories and Representations
MINOR PROGRAM IN THEATRE AND PERFORMANCE STUDIES (ARTS)
Program Supervisor: P. Sproulakos (416-287-7168) Email: tps-program-supervisor@uofcutoronto.ca

Program Requirements: Students must complete four full credits as follows:

1. HUMA01H3 Exploring Key Questions in Humanities
2. VPDA10H3 Introduction to Theatre
   (VPDA11H3 Introduction to Performance
   or
   VPDA15H3 Introduction to the Fundamentals of Acting)
   and
   at least two of the following courses: ENGC07H3, VPDB10H3, VPDB11H3, VPDB12H3, VPDB13H3
   Note: Students who do not qualify for either VPDA11H3 or VPDA15H3 should take at least four of the following courses:
   ENGC07H3, VPDB10H3, VPDB11H3, VPDB12H3, VPDB13H3
3. 1.5 additional credits in Drama, one full credit of which must be at the C- or D-level.

VPDA10H3 Introduction to Theatre
A general introduction to theatre as a social institution and a collaborative performing art. This course will survey the nature and function of the various elements of a theatrical production process, providing a background for further theatre studies. The successful completion of VPDA10H3 will admit students to subsequent VPD performance courses.
Exclusion: DRM200Y1, (VPDA10H3), (VPDA02H3)
Enrolment Limit: 80
Breadth Requirement: Arts, Literature & Language

VPDA11H3 Introduction to Performance
An introduction to performance in its broadest application. This course investigates a wide range of performance practices and theories including traditional Western approaches to basic acting technique and contemporary performance approaches informed and inspired by the visual arts, music, dance and theatre.
Prerequisite: VPDA10H3 & permission of Theatre & Performance Studies Teaching Staff
Exclusion: DRM200Y1, (VPDA10H3), (VPDA02H3), VPDA15H3
Enrolment Limit: 18
Breadth Requirement: Arts, Literature & Language

VPDA15H3 Introduction to the Fundamentals of Acting
An introduction to basic acting techniques for those with little or no performance experience. This course focuses on developing the essential skills necessary for the craft of acting through the use of improvisation and acting exercises. Students are also introduced to the foundations of monologue and scene work.
Prerequisite: VPDA10H3 & permission of Theatre & Performance Studies Teaching Staff
Exclusion: (VPDA01H3), VPDA11H3
Enrolment Limit: 16
Breadth Requirement: Arts, Literature & Language

VPDB01H3 Intermediate Workshop in Performance I
This course is intended for students who wish to continue the study of acting for the stage in greater depth. Exercises, discussions, and an increasingly more challenging range of monologues and scenes will be used as vehicles for exploring characterization and the acting process.
Prerequisite: [VPDA10H3 & VPDA11H3] or [VPDA01H3] & permission of the U of T Scarborough Theatre & Performance Studies Teaching Staff
Breadth Requirement: Arts, Literature & Language

VPDB02H3 Intermediate Workshop in Performance II
A continuation of VPDB01H3 with an emphasis on more advanced performance techniques.
Prerequisite: VPDB01H3 & permission of the UTSC Theatre & Performance Studies Teaching Staff
Breadth Requirement: Arts, Literature & Language

VPDB03H3 Technical Production I
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: DRM254Y1
Breadth Requirement: Arts, Literature & Language

VPDB04H3 Experiencing the Live Theatre
Discovering the special nature of various forms of live theatre. Students will attend six 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.
Breadth Requirement: Arts, Literature & Language

VPDB05H3 Studies in Theatre History I: From the Greeks to 1642
A study of theatre history from classical Greece until the closing of the theatres in England.
Using a thematic rather than chronological approach, this course will examine Western theatre within the given period, as well as in terms of the social and cultural function of theatre as an art form.
Exclusion: DRM260H1, DRM262H1
Breadth Requirement: Arts, Literature & Language

VPDB06H3 Studies in Theatre History II: From 1642 to World War One
A study of theatre history from the Restoration through the
rise of modernism.

Using a thematic rather than a chronological approach, this course will examine Western theatre within the given period, as well as in terms of the social and cultural function of theatre as an art form.

Breadth Requirement: Arts, Literature & Language

VPDC0193H3 Studies in Modern and Contemporary Theatre

A study of twentieth-century theatre history. The developments in and practice of Western theatre from the post-World War One era to the present day.

Exclusion: DRM268H

Breadth Requirement: Arts, Literature & Language

VPDC0153H3 Theatre in Canada

An examination of the development of professional theatre in Canada from 1945 to the present. Special attention will be paid to the development of the major theatrical festivals, the regional theatre movement, the rise of alternative theatre and current theatrical trends.

Exclusion: DRM268H

Breadth Requirement: Arts, Literature & Language

VPDC0143H3 Introduction to Asian Theatrical Traditions

An introduction to some of the major theatrical traditions of Asia. Students will read translations of plays and study some of the theoretical aspects of Oriental theatre in lectures and seminars. Recorded and visual materials will be used extensively.

Breadth Requirement: Arts, Literature & Language

VPDC0103H3 Advanced Workshop: Performance

A continuation of the exploration of advanced performance techniques begun in VPDB021H3. Prerequisite: VPDB011H3 & VPDR021H3 & permission of the U of T Scarborough Theatre & Performance Teaching Staff.

Exclusion: DEM404Y

Breadth Requirement: Arts, Literature & Language

VPDC0093H3 Directing for the Theatre

The practical study of basic stage directing techniques in a workshop atmosphere. This course will provide students with the fundamental tools of the director's craft, through an investigation of the principles of script analysis, composition and staging, director/actor communication and rehearsal technique, and will culminate in the presentation of short plays.

Prerequisite: VPDB011H3 & VPDR021H3 plus 1 other full credit in Theatre & Performance Studies & permission of instructor

Enrolment Limit: 8

Breadth Requirement: Arts, Literature & Language

VPDC0083H3 Technical Production II

A continuation of Technical Production I. Students will explore in greater depth the practical application of the technical elements of theatrical production. As part of the course, students will assume responsibility for some of the technical positions available in U of T Scarborough productions.

Prerequisite: VPDB001H3

Breadth Requirement: Arts, Literature & Language

VPDC0073H3 American Musical Theatre

A survey of the development of American musical theatre. Through research into and discussion of American musical theatre history, artists, and landmark productions, students will develop a critical understanding of the form. Attendance at a local professional musical production will allow for discussion about the influence of the form on theatre in Canada.

Prerequisite: 2 full credits in Visual & Performing Arts courses or permission of instructor. Enrolment Limit: 4

Breadth Requirement: Arts, Literature & Language

VPDC0063H3 Physical Theatre

An exploration of a wide range of physical acting techniques such as mime, clown, mask performance, stage acrobatics, unarmed stage fighting, and so on. This course is designed to further advance students’ performance skills by increasing their vocabulary of physical expression and theatrical communication.

Prerequisite: VPDB011H3 & VPDR021H3 & permission of instructor.

Enrolment Limit: 12

Breadth Requirement: Arts, Literature & Language

VPDC0053H3 Special Topics in Theatre I

Special topics for intensive practical study of some specific aspects of theatre. The topic to be explored in this course will change from session to session. Further information can be found on the VPA-Theatre & Performance Studies website. Prerequisite: Any 3 full credits in Theatre & Performance Studies & permission of the Program Director. Enrolment Limit: 16

VPDB0103H3 Supervised Performance

The practical study of major theatrical productions. Students will do research connected with the particular play that has been chosen for production at U of T Scarborough.

Prerequisite: VPDC0103H3 & permission of the UTSC Theatre & Performance Studies Teaching Staff

VPDB021H3

VPDB022H3

VPDB023H3 Supervised Studies in Drama, Theatre and Performance

Advanced scholarly projects open to upper-level Theatre & Performance students. The emphasis in these courses will be on advanced individual projects exploring specific areas of theatre history and/or dramatic literature.

Prerequisite: One full credit in Theatre & Performance at the C-level & permission of the Program Supervisor.

VPDB024H3

VPDB025H3

VPDB026H3

VPDB027H3

VPDB028H3 Independent Projects in Theatre and Performance

Advanced practical projects open to upper-level Theatre & Performance students. These courses provide an opportunity for individual exploration in areas involving the practice of theatre: directing, producing, design, playwriting, dramaturgy, etc.

Prerequisite: One full credit in Theatre & Performance at the C-
Women's and Gender Studies

Faculty List:
- L. Carney, M.A. (Columbia), Associate Professor
- A. Hochim, B.A. (Mombu Jermall), M.A. (Hawaii), Ph.D. (Hawaii), Assistant Professor
- J. Parry, B.A., M.A. (University of Wisconsin), M.S., Ph.D. (Illinois), Assistant Professor
- V. Tajammal-Bargahi, Ph.D. (York), Assistant Professor
- C. Guberian, B.A. (Manitoba), M.E.S. (York), Senior Lecturer
- N.C. Johnson, M.A., Ph.D. (York, Canada), Senior Lecturer
- J. English, M.A., Ph.D. (Toronto), Lecturer

Program Director: C. Guberian Email: c.guberian@utoronto.ca

Women's and Gender Studies is an interdisciplinary program that examines the development, transmission, and transformation of ideas and attitudes about women and gender across different historical periods, societies, and cultures. The program integrates theory and practice by introducing students to scholarship from a wide range of disciplinary perspectives and challenging them to work for change and equality in their communities and in their daily lives. Women's and Gender Studies courses emphasize experiential learning and invite students to consider topics such as women's roles in society; history, philosophy, and religion; gender and the media; women and work; gender, race, and class; international development; gender and sexuality; women and politics; women and literature; gender and language; women and social change; women and the family; and gender and the arts. The Women's and Gender Studies program at U of T Scarborough benefits greatly from interdisciplinary interests across the humanities while also reaching further across disciplinary boundaries through its strong affiliation with the social sciences at UTSC. Students will develop critical and analytic skills as thinkers, writers, and communicators for multiple workplace and community environments. The program at U of T Scarborough also emphasizes the diversity of women's lives and experiences globally, particularly in relation to differences in race, ethnicity, class, age, sexual orientation, and disability. The diversity of our student body greatly enriches our consideration of these issues. A degree including Women's and Gender Studies will enable students to assess how women's roles across disciplines impact our understanding of society and history and our actions, past and present, within local and global communities. Students preparing for a career in education, research, business, administration, government, law, journalism, social work, equity issues, or activism are encouraged to consider enrolling in a Women's and Gender Studies program. The program is enhanced by the affiliation of faculty from multiple disciplines at UTSC and draws students from a range of departments.

Guidelines for 1st year course selection
Students who intend to complete a Women's and Gender Studies program should include WSTA01H3 & WSTA03H3 in their 1st year course selection. Students are reminded that degree credit can only be granted for introductory courses when they are taken before upper-level courses for which there are specific prerequisites. Students are encouraged to take HUMA01H3 (Exploiting Key Questions in the Humanities) as early as possible in their studies.

The Women's and Gender Studies Study Guide is available at: www.uts.c.utoronto.ca/~hwradv/prg_wg.html

MAJOR PROGRAM IN WOMEN'S AND GENDER STUDIES (ARTS)

Undergraduate Advisor: 416-287-7184 Email: wst-undergrad-advisor@uts.c.utoronto.ca

Program Requirements
Students must complete seven full credits as follows:
1. WSTA01H3 Introduction to Women's and Gender Studies

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 three full credits in TAPS and permission of the Program Director. Exclusion: DRE355H4 Enrolment Limits: 15 Breadth Requirement: Arts, Literature & Language

WPCA04H3 "Live"
See the general Visual and Performing Arts section of this Calendar for a full course description.
Exclusion: (VPDC06H3), (VPSC57H3)
Women's and Gender Studies

and
WSTA09H3 Introduction to Theories of Feminisms
2. WSTB04H3 Fundamentals of Research in Women's and Gender Studies
3. WSTB11H3 Race, Class and Gender
4. WSTC02H3 Applied Research in Women's and Gender Studies
5. WSTD01H3 Senior Project in Women's and Gender Studies
   or
WSTD03H3 Senior Seminar in Health, Sexualities and the Gendered Body/Representations and Constructions of Women and Gender
   or
WSTD04H3 Senior Seminar in Gender, Equity and Human Rights/Gender, Local and Global Communities
   or
One D-level elective cross-listed with WST, with the approval of the program supervisor
6. One further credit in WST
7. 3.0 credits from the list below of which at least 1.0 must be at the C- or D-level. (Students should check course descriptions for prerequisites.)
   Note: Not all courses in #7 are offered every year. Please note that courses have been organized into four thematic clusters to assist students in planning - there is no program requirement related to the clusters:

Cluster #1: Health, Sexualities, and the Gendered Body
ANTC15H3 Genders and Sexualities
ANTD01H3 The Body in Culture and Society
ENGC57H3/VPAC47H3 The Body in Modernity: Theories and Representations
ENGC75H3/VPAC55H3 The Body in Contemporary Culture: Theories and Representations
GGRD10H3 Health and Sexuality
HUCO20H3 Women and Health: Past and Present
PSYD18H3 Psychology of Gender
PSYD22H3 Socialization Processes
WSTB12H3 Women: Issues of Violence and Safety

Cluster #2: Representations and Constructions of Woman and Gender
ENGB55H3 Women and Literature: Forging a Tradition
ENGB56H3 Gender and Genre
ENGC44H3 Early Modern Women and Literature: 1500-1700
ENGC55H3 Contemporary Arab Women Writers
ENGD58H3 Women and Canadian Writing
LNC32H3 Language and Gender
PHIL13H3 Philosophy and Feminism
PSYD10H3 Psychology of Gender
SOCR20H3 Sociology of Gender
SOCO30H3 Gender and Information Technology
VPAS57H3 Women in the Arts: Hot Mamas, Amazon, and Matriarchs
VPAM53H3 Music and Gender
WSTB13H3 Women and the Media
WSTC12H3 Writing the Self: Global Women's Autobiographies
WSTC16H3 Criminal Women: Gender, Justice and the Media
WSTC22H3 Women and Film

Cluster #3: Gender, Equity, and Human Rights
GASM50H3 Gender and Social Institutions in Asia
MGTC23H3 Diversity in the Workplace
POLC76H3 Women in Political and Social Thought
POLC77H3 Women in Political and Social Thought II
SOCO39H3 Sociology of Gender and Work
SOCO40H3 Gendered selves, Gendered Lives and Inequalities
SOCO38H3 Gender and Education
WSTD10H3 Women's Local and Global Movements for Change
WSTC14H3 Women, Community and Policy Change
WSTC15H3 Feminisms, Education, and Literacy

Cluster #4: Gender, Local and Global Communities, and Diaspora
ANTE14H3 Feminism and Anthropology
GASM20H3 Gendering Global Asia
GGRD09H3 Feminist Geographies
HISC4H13 Immigrant and Race Relations in Canadian History
HISD2H3 Gendering America
HISD4H3 Selected Topics in Canadian Women's History
HISD5H3 Coolies and Others: Asian Labouring Diasporas in the British Empire
SOCH4H3 Family and Society
SOCB4H3 Sociology of Family
SOCC2H3 Changing Family Life in Canada
SOCC3H3 Special Topics in Sociology of Family
(WSTB15H3) Women in the Cyberespace: Transnational Feminist Networks and Activism
WSTC1H3 Women and Development
WSTC1H3 Applied Studies in Women and Development
WSTC1H3 Women, Gender and Islam
WSTC1H3 Gender in East Asian Science and Technology
WSTC2H3 Women and Environments
WSTC2H3 Gender, Health, Science in Transnational Perspective

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 40 full credits as follows:
1. WSTA0H3 Introduction to Women's and Gender Studies Studies
2. WSTA0H3 Introduction to Theories of Feminism
3. WSTB0H3 Fundamentals of Research in Women's and Gender Studies
4. Two further credits in Women's and Gender Studies at the B, C, or D-level and/or from the list of courses in other disciplines which deal with women's/gender issues provided in #7 in the Major Program; at least one of these credits must be at the C or D-level.

WSTA0H3 Introduction to Women's and Gender Studies
An introduction to the study of women around the world from an interdisciplinary perspective. Issues to be addressed will include: women's diversity locally and globally, patriarchal foundations, the dynamics of socialization, and the transmission and perpetuation of images of women.
Exclusion: (NEW160Y), (WGS160Y), (WGS200Y)
Breadth Requirement: Social & Behavioural Sciences

WSTA0H3 Introduction to Theories of Feminism
An introduction to feminist theories with a focus on the diversity, multidisciplinary and multicultural expressions of feminist thought. An overview of the major themes, concepts and terminologies in feminist thinking and an exploration of their meanings.
Exclusion: (NEW160Y), (WGS160Y), (WGS200Y)
Breadth Requirement: History, Philosophy & Cultural Studies

WSTB0H3 Fundamentals of Research in Women's and Gender Studies
An examination of topical and critical research in women's issues from a cross-cultural and interdisciplinary perspective. Fundamentals of conducting research are examined. This course will provide practice in critical analysis of contemporary issues as they affect women globally. Issues will be drawn from a range of disciplines, including history, sociology, education, literature, the arts and sciences.
Prerequisite: WSTA0H3 & (WSTA0H3 or (WSTB0H3)) or permission of the instructor
Breadth Requirement: Social & Behavioural Sciences

WSTB1H3 Women's Local and Global Movements for Change
An examination of local and global movements for change, past and present, 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: WSTA0H3 & (WSTA0H3 or permission of the instructor Exclusion: (WSTB0H3))
Breadth Requirement: Social & Behavioural Sciences

WSTB1H3 Race, Class and Gender
An overview of the complex interactions among race, class and gender 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: WSTA0H3 & (WSTA0H3 or (WSTB0H3)) or permission of the instructor
Breadth Requirement: Social & Behavioural Sciences

WSTB1H3 Women: Issues of Violence and Safety
An analysis of violence against women and initiatives toward creating safety. A historical, cultural, and structural approach to studying family, state, economic, and ideological violence against women. Initiatives toward making communities safer, including strategies for prevention and education will be examined.
Prerequisite: WSTA0H3 & (WSTA0H3 or (WSTB0H3) or (WSTB0H3) or (WSTB0H3) or one half credit from the list provided in #7 in the Major Program) or permission of
308 Women's and Gender Studies

instructor. Exclusions: (NEW373H), WGDS373H
Breadth Requirement: Social & Behavioural Sciences

WSTB13H3 Women and the Media

An interdisciplinary approach to feminist critiques of the media. The representation of women will be examined in media such as film, television, video, newspapers, magazines, and radio. Students will also develop a perspective on women's participation in, and contributions toward, the various media industries.
Prerequisites: WSTA003H or (WSTA002H3 or WSTA003H) or permission of the instructor
Exclusion: (NEW271Y), WGS271Y
Breadth Requirement: History, Philosophy & Cultural Studies

WSTC029H3 Applied Research in Women's and Gender Studies

Students will design and conduct a qualitative research project on an issue of their choice related to women and gender. Fieldwork is the basis of this course. It will also include an overview of the various phases of conducting a research project: planning the research project, choosing appropriate methods for data collection, analyzing the data, and reporting the results.
Prerequisites: WSTA018H3 & WSTA063H3 & WSTB050H3 & 1.5 full credit taken from the courses listed in #5 and #7 in the Major Program
Exclusion: (WSTD021H3)
Enrolment Limit: 15
Breadth Requirement: Social & Behavioural Sciences

WSTC100H3 Women and 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's organizing for change, and feminist critiques of traditional development models.
Prerequisites: WSTA018H3 & (WSTA033H3 or WSTA032H3) or IDS000H3 or IDS010H3 or permission of the instructor
Breadth Requirement: Social & Behavioural Sciences

WSTC111H3 Applied Study in Women and Development

An examination of a critical problem within the global context as it affects women in their communities. The class as a whole will determine the issue under consideration.
Prerequisites: WSTC100H3
Exclusion: (WSTC101H3)
Breadth Requirement: Social & Behavioural Sciences

WSTC129H3 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, matrimony and illness. Texts will be read in English and an emphasis will be placed on the cultural contexts of gender, ethnicity and class.
Prerequisites: ENG050H3 or (WSTA018H3 & WSTA033H3 or WSTA032H3) & any ENG or FIE literature course or permission of instructor
Recommended Preparation: WSTB113H3
Enrolment Limit: 30
Breadth Requirement: Arts, Literature & Language

WSTC133H3 Women, Gender and Islam

Explores historical and contemporary debates regarding the construction of gender in Islam. Topics include the historical representation of Muslim women, veiling, sexuality, Islamic law and Islamic feminism. This course situates Muslim women as multidimensional actors in opposition to the static, Orientalist images that have gained currency in the past 9/11 era.
Prerequisites: (WSTA003H or WSTA002H3 or WSTA003H) and permission of the instructor
Exclusion: WSTC133H3 (taken in the 2008 Winter Session)
Breadth Requirement: History, Philosophy & Cultural Studies

WSTC144H3 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.
Prerequisites: WSTA018H3 & (WSTA033H3 or WSTA032H3) or permission of the instructor
Breadth Requirement: History, Philosophy & Cultural Studies

WSTC159H3 Feminisms, Education, and Literacy

Introduction to feminist education theories and practices focusing on global literacy development for women and girls. Feminist debates and pedagogical practices in education from historical and cross-cultural contexts; empowerment and human rights goals for literacy, NGOs and community teacher training initiatives; and international efforts to promote education reform.
Prerequisites: (WSTA003H or WSTA002H3 or (WSTA003H) or permission of the instructor
Enrolment Limit: 40
Breadth Requirement: History, Philosophy & Cultural Studies

WSTC161H3 Criminal Women: Gender, Justice and the Media

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 and criminology will be discussed.
Prerequisites: (WSTA003H or WSTA002H3) or 1.0 full credit in Sociology or permission of instructor
Recommended Preparation: WSTB113H3
Enrolment Limit: 40
Breadth Requirement: History, Philosophy & Cultural Studies

WSTC195H3 Gender in East Asian Science and Technology

This course examines how gender issues influence the history and contemporary development of science and technology in East Asian societies, including China, Japan, and Korea. Students will gain a critical perspective on the role of gender in shaping scientific knowledge and technological advancements in the context of East Asia.
Same as: EEC321H3 and GASC399H3.
Prerequisite: Any 5.0 full credit
Exclusions: EEC321H, GASC399H3
Recommended Preparation: (WSTA018H3 & WSTA033H3)
or [GASA01HD & GASA02HD] or GASH01HD.
Enrolment Limits: 50
Breadth Requirement: Social & Behavioural Sciences

WSTC28H3 Women and Environments
An examination of the impact the environment has on
women's lives around the world. Current and historical
perspectives. Topics will include the impact of
environmental degradation on women's bodies, planning
for safer places, global sustainable development,
environmental justice, and the gender division of space.
Prerequisite: Two full credits in WST, or permission of the
instructor
Breadth Requirement: Social & Behavioural Sciences

WSTC21H3 Gender, Health, Science in Transnational
Perspective
This course provides an advanced introduction to feminist
scholarship on science, health, and technology. It examines
a history and culture of modern scientific research, health
practice, and technologies in western and non-western
societies. Same as IECC31H3.
Prerequisite: Any 5.0 full credits
Exclusion: IECC31H3
Recommended Preparation: [WSTA01HD & WSTA03H3]
or [GASA01H3 & GASA02H3] or GASH01H3
Enrolment Limits: 50
Breadth Requirement: Social & Behavioural Sciences

WSTC22H3 Women and Film
This course examines narrative, documentary and
experimental films by a selection of global women directors
from a social, critical and historical perspective. We will
analyse the films' representations of race, class, gender and
sexual orientation, and explore how cinema male by women
can challenge or perpetuate notions of gender.
Prerequisite: Any 5 credits, including [WSTA01H3 &
WSTA03H3 or (WSTA02H3)] or [any ENG, FREN or GEMS
 cinema class]
Recommended Preparation: WSTB11H3
Enrolment Limits: 50
Breadth Requirement: 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
LINGC28H3.
Prerequisite: WSTA01H3 or WSTA03H3, and one full
credit at the B-level in ANT, LIN, SOC or WST.
Exclusion: LAL353H, LINC22H3
Breadth Requirement: Social & Behavioural Sciences

WSTC31H3 Selected Topics in Women's/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 & [WSTA02H3 or (WSTA03H3)]
or permission of the instructor

WSTC31H3 Selected Topics in Women's/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 & [WSTA02H3 or (WSTA03H3)]
or permission of the instructor

WSTD01H3 Senior Project in Women's and Gender
Studies
Students will choose a topic of special interest to them,
and undertake an in-depth investigation of the topic under
the supervision of a Women's and Gender Studies faculty
member. A substantial essay on the approved topic will be
given to two evaluators - the course co-ordinator and the
supervising faculty member.
This course is only open to Women's and Gender Studies
Major program students with a strong record who are
completing the last 5 credits of their degree. Enrollment must
be approved by the program supervisor and the course
coordinator in the term prior to the start of the course.
Prerequisite: At least 12 FCE including WSTA01H3 &
[WSTA03H3 or (WSTA02H3)] & WSTB10H3 & 1.5 full
credits taken from the courses listed in #3 & #4 in the Major
Program.

WSTD02H3 Senior Seminar in Health, Sexuality and
the Gendered Body/Constructions of Women and Gender
An advanced and in-depth examination of selected
topics related to health, sexuality, 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 & [WSTA03H3 or
(WSTA02H3)] & WSTB11H3 & two C-level courses from
Chapters 1 & 2 in Requirement 7 of the Major Program or
permission of the instructor. Enrolment Limits: 20

WSTD04H3 Senior Seminar in Gender, Equality and
Human Rights/Gender, Local and Global
Communities
An advanced and in-depth examination of selected topics
related to women and gender, equality, diversity and human
rights in the context of local and global communities, and
disparities. The course will be in a seminar format with
student participation expected. It is writing intensive and
involves a major research project.
Prerequisite: WSTA01H3 & [WSTA03H3 or (WSTA02H3)]
& WSTB11H3 & two C-level courses from Chapters 3 & 4 in
Requirement 7 of the Major program, or permission of
instructor. Enrolment Limits: 20
Admissions

Re-enrolling University of Toronto Scarborough Students

Students previously registered at U of T Scarborough who wish to return after suspension or an absence of three or more consecutive sessions (at least 12 months) must submit an "Application To Re-Enroll" at the Registrar's Office. This form may be printed from our website: www.utsc.utoronto.ca/registrar. Students who studied elsewhere during their absence from U of T Scarborough should apply to re-enroll well before the final deadline since we need to review official transcripts from the other institution(s).

Enrollment 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 when the "course selection period" begins, students are strongly advised to apply to re-enroll by the dates listed below:

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

Late applications to re-enroll will be considered ONLY if received before classes begin in the session. For further information on re-enrollment, telephone 416-287-7001. See also the Overall Standing section of this Calendar.

Students who have a four-year degree conferred normally continue as Non-Degree Students. U of T Scarborough students who wish to start a second degree must apply, in writing, to the Assistant Registrar, Admissions by April 1. For details, contact Admissions and Student Recruitment at 416-287-7529.

Admissions

The following is a brief description of undergraduate admission policies and procedures. Full information may be obtained from:

<table>
<thead>
<tr>
<th>Admissions and Awards</th>
<th>Admissions and Student Recruitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Toronto</td>
<td>University of Toronto Scarborough</td>
</tr>
<tr>
<td>172 St. George Street</td>
<td>1265 Military Trail</td>
</tr>
<tr>
<td>Toronto, Ontario, Canada M5S 1A3</td>
<td>Toronto, Ontario, Canada M1C 1A4</td>
</tr>
<tr>
<td>website: <a href="http://www.adm.utoronto.ca">www.adm.utoronto.ca</a></td>
<td>website: <a href="http://www.utsc.utoronto.ca/admissions">www.utsc.utoronto.ca/admissions</a></td>
</tr>
</tbody>
</table>

Applicants interested in graduate studies should contact the School of Graduate Studies. Website: www.sgs.utoronto.ca Telephone: 416-978-6614

Application Procedures and Deadlines

Most of the applications for U of T Scarborough programs are submitted to the Ontario Universities Application Centre for initial processing. Students who are currently enrolled full-time in an Ontario secondary school submit a 105 application. Details are available at secondary school guidance offices. Other applicants seeking full-time degree studies, except for applicants from other divisions of U of T (internal or T transfers) will apply using a 105 application that is available on-line at the Ontario Universities Application Centre's website at www.ouac.on.ca (telephone: 519-822-1840).

Internal U of T Transfer applications, Part-time Degree and Non-Degree on-line applications are available at the Admissions and Awards website: www.adm.utoronto.ca

Upon receipt of the application from OUAC, the University of Toronto's Admissions and Awards office sends confirmation and refers the applicant to an on-line Applicant Instruction Guide. Applicants are strongly advised to submit the application well in advance of the deadlines listed below.

- In particular, applicants to the following programs should apply before March 1:
  - Co-operative Programs, Joint Programs with Centennial College, Management Programs. All of these programs require a supplementary application (to be completed online at the U of T Scarborough Admissions and Student Recruitment website).
  - Applicants to the Concurrent Teacher Education Programs should apply well in advance of the February 1 deadline (an Applicant Profile, to be filed on-line at the Programs website, is required).
  - Note to Applicants to Joint Programs with Centennial College: Information about your application will be shared with the relevant Program Supervisor at Centennial College to evaluate your application.

2011 Summer Session Deadline

- March 1 for Part-time degree and Non-degree applications
- May 1 for Non-Degree Visiting Students applying from other North American universities on a Letter of Permission
2011/2012 Fall/Winter Session Deadlines:

Full-time degree study:
- February 1 for applications to the Concurrent Teacher Education Program
- March 1 for 101 applications, for applicants who are currently enrolled full-time in a Ontario high school
- March 1 for OSSD applications, for applicants who are residing in Canada or for applicants who are Canadian Citizens/Permanent Residents who reside outside Canada, who are not currently enrolled full-time in an Ontario high school
- March 1 for non-degree, non-101 applications, for applicants who have registered in other divisions of U of T
- March 1 for 105F applications, for applicants who reside outside Canada who are not currently attending an Ontario secondary school (in Ontario or abroad) in a daytime program of study.

Other Applications:
- June 1 for Part-time Degree, Non-Degree or Visiting Student (Non-Degree) applying from other North American universities on a Letter of Permission

General Admission Requirements to the University of Toronto Scarborough for 2011-2012

Applicants from Ontario Secondary Schools Under 1999 OSSD Diploma (4 year) requirements
- Applicants must be eligible to receive the Ontario Secondary School Diploma (OSSD)
- Applicants must present at least six (6) Grade 12 University (U) courses or University/College (M) courses
- One credit must be Grade 12 English ENG4U
- Applicants must present credits to satisfy any prerequisites of specific courses or specific programs in which they intend to enrol.
- Applicants must satisfy English Facility Requirements

Applicants from Ontario Secondary Schools under 1989 OSIB Diploma (5 year) requirements
- Applicants must be eligible to receive the Ontario Secondary School Diploma (OSSD)
- Applicants must present at least six (6) Ontario Academic Courses (OACs)
- One credit must be OAC English U-langlas
- Applicants must present credits to satisfy any prerequisites of specific courses or specific programs in which they intend to enrol
- Applicants must satisfy English Facility Requirements

English Facility Requirements
Applicants may request the English Facility Requirements brochure from Admissions and Awards or visit the website:
www.adm.utoronto.ca/eff
Telephone 416-978-2190

1. Proof of adequate English facility is required of all applicants except for those, (i) whose first language is English, or (ii) who have studied full-time for at least four years in an English language school system located in a country where the first language is English, or (iii) whose first language is French and have studied for at least four years in the Canadian school system.

2. Applicants who are required to present proof of English facility shall be exempt from the normal admission requirement of having to present ENG4U English (or equivalent course). Such applicants are, however, encouraged to include English in their preparations for university. If English 12 U or OAC English 1 is completed as an extra credit, applicants will not be penalized by having the result included in their admission average if the grade is low.

3. Acceptable Tests/Qualifications and Required Scores
- The Test of English as a Foreign Language (TOEFL). The minimum requirements are:
  - Internet-Based Test - total score of 100 + 22 on Writing
  - Paper-Based Test - total score of 600 and 5.0 on TWE
- Michigan English Language Assessment Battery. The minimum requirement is an overall score of 85 with no part scoring below 80.
- International English Language Testing System (IELTS). The minimum requirement is an overall band of 6.5, with no band below 6.
- Academic English Course completed at the University of Toronto, English Language School, School of Continuing Studies (http://learn.english.utoronto.ca). The minimum requirement is a grade of B at the 00 (Advanced) level.

For other acceptable tests and requirements, please refer to: www.adm.utoronto.ca/eff

Note: For an applicant who scores just below the minimum requirements who is otherwise well-qualified for admission, Admissions and Awards will automatically consider other academic evidence of English proficiency (for example, results in English courses).

Prerequisites
Students should choose Grade 12 University and/or University/College Preparation courses that will fulfill the prerequisites for university courses and programs they intend to take. Review U of T Scarborough brochures, the U of T Scarborough website or consult with Admissions and Student Recruitment staff.
Admissions

Examples:
- Management and Computer Science programs require both MOP4U Advanced Functions and MCV4U Calculus & Vectors.
- All programs in Biological Sciences require MOP4U Advanced Functions, MCV4U Calculus & Vectors and SCi4U Chemistry.

Admission By Equivalent Certificate
The certificates listed below are considered acceptable for admission consideration. Applicants must present courses to meet specific course and program prerequisites. Review the prerequisite information given for Ontario applicants on our website and in our brochures to determine the equivalent prerequisites you need.

Applicants from Other Canadian Provinces and Territories.
Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, North West Territories, Nova Scotia, Nunavut, Prince Edward Island, Saskatchewan, Yukon - Grade 12

Quebec - 12 academic CEGEP courses (Transfer credit is granted to candidates who have completed more than the 12 academic required CEGEP courses.)
Note: Those who completed their high school studies in Canada prior to 1989 should contact Admissions and Awards before applying to check entrance requirements.

Admission with Transfer Credit
Students who have completed work at other universities or at other Faculties or Schools of this University may be considered for admission with advanced standing credit. Acceptance of transfer credits among Ontario universities shall be based on the recognition that, while learning experiences may differ in a variety of ways, their substance may be essentially equivalent in terms of their content and rigor. Insofar as possible, acceptance of transfer credit should allow for maximum recognition of previous learning experience in university-level courses.

Subject to degree, grade and program requirements, any course offered for credit by one university shall be accepted for credit by another university when there is virtual equivalency in course content.

Note that students who are transferring to the University of Toronto Scarborough will be required to complete at least half of their degree credits and half of their program requirements as University of Toronto Scarborough students. (Students transferring from other divisions of the University of Toronto are exempt from this degree requirement. However, limits on transfer credits upon admission still apply.) Students must consult with the Program Supervisor before taking courses required for the program at another campus.

Applicants from Ontario Colleges of Applied Arts and Technology (CAAT)
1. Candidates who have completed a two-year CAAT diploma program with sufficient academic content (or two years of a three-year CAAT diploma program) are eligible to be considered for admission to the first year of a degree program. Up to two full credits will be considered as transfer credit (effective 1997; the policy change is not retroactive).
2. Candidates who have completed a three-year CAAT diploma program are eligible to be considered for admission with up to five full credits as transfer credit.
3. Candidates who have completed a one-year CAAT diploma program (or one year of a two- or three-year CAAT diploma program) are normally not eligible for consideration for admission. They must qualify for consideration by completing Grade 12 U/M courses (or equivalent).

Applicants from Centennial College who are applying for admission to a joint program at U of T Scarborough who have completed a corresponding program at Centennial College are asked to contact Admissions and Student Recruitment for further details. Also, see the Joint Programs website: www.ontario.ca/jprogs

Applicants holding the International Baccalaureate Diploma (IB)
Candidates who have completed the Diploma with good results will be considered for admission. Those seeking admission to programs that require mathematics must present Higher Level Mathematics, Standard Level Mathematics or Mathematics Methods with the Calculus option. Transfer credit is awarded for most Higher Level subjects completed with a grade of 5, 6 or 7 at www.ontario.ca/admissions/requirements

Applicants from the United States of America
Candidates who have completed Grade 12 from an accredited high school with a high grade point average and good scores on the SAT Reasoning Test or ACT (including the Writing Test) results, and a minimum of two SAT Subject Tests or AP or IB scores (or combination thereof covering two different subjects). Transfer credit is awarded for advanced Placement tests with scores of 4 or 5. www.ontario.ca/admissions/requirements

Applicants with other qualifications
Candidates who wish to apply for admission on the basis of work completed in other countries or on the basis of other qualifications should check our website or write to Admissions and Awards, outlining their academic qualifications and intended area of study.
Information on admission requirements for applicants with international credentials may be obtained from the Admissions and Awards website.

Mature Students
Applicants who do not hold the published admission requirements who are at least twenty-one years of age, Canadian citizens, Permanent Residents of Canada or Protected Persons (Convention Refugees) and have been resident in Ontario for at least twelve months may be considered for admission as mature students. The applicants must complete, with high standing, (a) one of Woodsworth College's Academic Bridging Program courses or (b) two Grade 12 U/M courses completed after the student is 21 years of age. One course must be English ENG4U. Further information on the Academic Bridging Program is available at www.wdw.utoronto.ca or by contacting Woodsworth College (416-978-7487).

Students must receive permission from Admissions and Awards to qualify for consideration using these options. Note that students who wish to prepare for certain university programs such as management or science programs may have to do additional studies to ensure all of the prerequisites are attained.

Notes: (i) Status in Canada: An applicant who wishes to qualify as a Mature Student must be one of the following: a Canadian Citizen or Permanent Resident or officially recognized as a Protected Person (Convention Refugee) by Citizenship and Immigration Canada, admitted to and remaining in Canada (ii) Age: The applicant must be 21 years of age by October 1 of the Fall Session or by July 15 for the Summer Session.

Non-Degree Students
A Non-Degree Student is one who is taking courses at U of T Scarborough but who is not proceeding towards a University of Toronto Bachelor's degree. Most Non-Degree students have completed degree studies and are taking further courses for their own interests or for professional preparation.

Visiting Student (Non-Degree) on a Letter of Permission
Students enrolled in undergraduate studies at other accredited North American universities and with valid Letters of Permission may apply directly to U of T Scarborough to take courses for transfer credit at their own home university. Visiting Student status does NOT imply acceptance for Degree status or other Non-Degree student status. Call 416-287-7529 for applications or download the application from our website at www.uts.utoronto.ca/admissions/forms

Senior Citizens
Canadian citizens or permanent residents of Canada who are at least 65 years of age by the first day of term may apply for admission as part-time Non-Degree Students. Normal admission requirements are usually waived. Tuition fees will be charged. Call the Assistant Registrar, Admissions at 416-287-7529 for information.

How Decisions Are Made
The specific average or standing required for admission varies from year to year. Students are selected by taking into consideration a wide range of criteria including school marks, distribution of subjects taken, performance in subjects relevant to the academic program selected and, for applicants to co-operative programs, teachimg programs and joint programs, supplementary application information. While the University of Toronto recognizes that there may be valid reasons for a student to repeat a course, in general we urge students to do as well as possible on their first attempt. In considering students for admission and scholarships, the University reserves the right to give preference to students whose marks are the result of a single attempt at each course.

Possession of minimum requirements does not guarantee acceptance. Because of space limitations, preference will be given to applicants with the best qualifications. Applications will be considered from candidates whose qualifications do not meet the normal requirements, but such candidates must offer written evidence of exceptional ability, or of extenuating circumstances. Such students may be admitted "on condition". Students on condition have special academic requirements that must be met and should refer to the "Overall Standing" section of this Calendar, specifically the entry on "Determination of academic status for students admitted on condition". Applicants who matriculated prior to the current year are advised to contact Admissions and Awards for information. The University of Toronto reserves the right to determine whether or not credentials of degree-granting institutions in Ontario meet the standards for admission to University of Toronto programs.

Scholarships and Awards
The following section of the Calendar provides general information about scholarships and awards at the U of T Scarborough. For complete information, please visit our website at: www.uts.utoronto.ca/registrar

U of T Scarborough seeks to recognize excellent academic achievements of students registered in undergraduate degree programs. We consider students for awards in the following categories:

1. Admission Awards
   a. Automatic consideration
   b. Application or nomination based
2. In-course Awards: Available to students continuing their studies at U of T Scarborough. In this category there are two types of awards:
   a. Autonomic consideration
   b. Application or nomination based

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

Admission Awards

For complete information on admission scholarships and awards, visit our website at: www.utsc.utoronto.ca/admissions

U of T Scarborough allocates entrance scholarships to students entering first year directly from secondary school. A limited number of entrance scholarships are available to international students. Successful applicants will be notified of awards received at the time they receive an offer of admission to the University. 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.

In-course Awards and Prizes

In-course awards are given to students who have completed their First, Second or Third year of study towards an Honours Bachelor's degree. For award purposes, a year of study is defined as the completion of 5.0 credits at U of T Scarborough. Decisions for in-course awards are made in the summer and notification letters are normally sent out in August. In order to give more students an opportunity to be recognized for excellent academic achievement the policy of the U of T Scarborough Awards Committee permits a student to hold only one major award. An awards ceremony is normally held in November.

University of Toronto ScarboroughHonours List

U of T Scarborough publishes an honours list annually which includes the names of all degree students who have achieved a scholarship grade point average of 3.70 or better in their most recent year of study. Students are considered for the honours list if at the end of the session in which they complete their 5th, 10th, 15th and 20th credit.

Graduation Awards

Graduation awards are given at the time of graduation. They include medals and prizes awarded for outstanding achievement during the undergraduate years of 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. An awards ceremony is normally held in June.

Graduation With High Distinction and With Distinction

University of Toronto Scarborough students who have completed at least ten full-credits while registered at U of T Scarborough will graduate:
   - with high distinction if their cumulative grade point average is 3.50 or better and
   - with distinction if their cumulative grade point average is between 3.20 and 3.49

Other students with a cumulative grade point average of 3.20 or better will be considered on an individual basis.

University of Toronto Scarborough Honours List

University of Toronto Scarborough publishes annually an honours list, including the names of all degree students who have achieved a grade point average of 3.70 or better in their most recent year of full-time study or equivalent amount of part-time study. Students are considered for the honours list at the end of the session in which they complete their 20th credit.

Financial Aid

There are a variety of financial aid programs that provide assistance to full-time and part-time students through student loans and/or grants. Generally, assistance will depend on the student's demonstration of financial need. Before turning to university administered programs, students are expected to have applied for government student loans programs.

Government Financial Aid

Each province administers a student loans program to assist full-time students with educational and living expenses during the study period. In Ontario, this program is known as OSAP. Eligible students must be Canadian citizens, permanent residents or protected persons. Students are expected to apply to the province of residence. These types of loans (federal and provincial) are interest free and non-repayable as long as the student remains enrolled in full-time studies. Information is available at the Office of the Registrar's Website: www.utsc.utoronto.ca/registrar
University of Toronto Grants
Grants (or bursaries) are non-repayable amounts of financial assistance. U of T Scarborough students have access to two grant programs. They are:
1. U of T Advance Planning for Students (UTAPS); and
2. U of T Scarborough Bursary for Full-Time Students

Both of these programs are designed to assist students who have qualified for government financial assistance, but who still need more help to balance their budget. Visit the Office of the Registrar’s website (www.utm.utoronto.ca/registrar) for full details on how to be considered for one or both of the above grants.

University of Toronto Work-Study Program
This program is funded by the University and the Ministry of Training, Colleges and Universities, and provides on-campus, part-time employment to students with financial need. Students must enrol in and maintain a full-time course load for the duration of the study period. At U of T Scarborough there are two hiring periods: the Fall session for the Fall/Winter sessions and the Summer session. Information and applications are available from the Academic Advising & Career Centre, Room AC213 (www.utm.utoronto.ca/acce).

Other Programs
Visit the financial aid section of the website of the Office of the Registrar (www.utm.utoronto.ca/registrar) for complete details.

Academic Regulations

Student responsibility
Students are responsible for making themselves familiar with the information in this Calendar, particularly with this section, as well as instructions published periodically by the Registrar’s Office. Students are responsible for seeking guidance from a responsible officer if they are in any doubt, misunderstanding, or advice received from another student will not be accepted as cause for dispensation from any regulation, deadline, program or degree requirement. Members of the Registrar’s Office and the Academic Advising & Career Centre will assist students in interpreting the regulations and explaining their application in particular cases. Where appropriate, they will help those who encounter special difficulties to request special consideration. Students whose registration contravenes the regulations may be withdrawn from courses, regardless of when the contravention comes to light.

Calendar changes
The information published in this Calendar outlines the rules, regulations, curricula and Programs for the University of Toronto Scarborough. The publication of information in this Calendar does not bind the University to the provision of courses, Programs or facilities as listed herein.

The University of Toronto Scarborough reserves the right to change without notice any information contained in this Calendar, including any rule or regulation.

This Calendar is published in both online and printed editions. Every effort has been made to ensure the compatibility of both versions. In the case of any discrepancy, the online version shall apply. Any post-publication corrections and/or updates to the print edition of this Calendar will be updated to the online Calendar at www.utm.utoronto.ca/calendar. Students are strongly advised to check back regularly to keep informed of changes.

Enrolment limits
The University of Toronto Scarborough reserves the right to limit the number of registrants in any Program or course where the number of qualified students exceeds the teaching or other resources available.

Student Cards (T-Cards)
All students are required to have a student card in order to write tests and exams, request transactions at the Registrar’s Office, obtain a UTORid account, use the Library, Computer Centre, and Athletic facilities. New students who do not have a student card should obtain one from the Registrar’s Office. Cards are provided free of charge to all new students. Replacement cards are issued in the Library T-card Office (see http://utsc.library.utoronto.ca/services/loan-services/cards-at-utsc for more information). A fee is charged to replace cards.

Students in debt to the University
If, at the end of the academic session, all debt to the University has not been paid, the University of Toronto Scarborough imposes the following academic sanctions until such time as 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 graduates will be allowed to participate in the 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
• Registration is refused to re-enrolling students (i.e. returning after 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
• Fines levied under the Code of Student Conduct

Student Web Service
University of Toronto student records are maintained by a student-friendly web-based system called ROSI. These records are shared with Degree Navigator, a web-based academic audit and advising system.

ROSI (www.rosi.uutoronto.ca)
Students use ROSI to access a variety of online enrollment services, such as:
• Course and Subject POSI enrollment
• Viewing grades, GPAs and academic status
• Requesting transcripts
• Viewing their financial account
• Updating personal information
• Listing their ROSI transactions

Login to ROSI to see a complete list of services available from ROSI’s main menu.

Access to ROSI is through student number and a six-digit personal identification number (PIN). All PINs are set initially to year, month and day of birth (e.g. 930323 = March 23, 1993) and must be changed to one of the student’s own choice before access to ROSI is granted. Students accessing ROSI for the first time will be prompted to change PIN. Students should also set up their PIN reactivation feature - see below. For security there is a limit of three on the number of failed attempts that can be made to enter PIN. Students who exceed the limit will have their access to ROSI suspended. Students whose access has been suspended or who have forgotten their PIN can reactivate their PIN themselves provided they set up the PIN reactivation feature on ROSI in advance. Students who did not set up PIN reactivation in advance should contact the Registrar’s Office immediately. Photo identification is required in order to restore access.

Student System Access Fee: Incidental fees include a Student System Access fee.

ROSI: Further information about ROSI is included in the Registration Guide and at www.rosi.uutoronto.ca

Degree Navigator (www.dn.uutoronto.ca)
Degree Navigator is a web-based academic audit and advising system which is accessed through the ROSI website using student number and ROSI PIN. Students can use it to:
• Check their progress towards their degree and program completion
• Do “What If?” assessments
• Check different sets of program requirements

All student information (e.g. courses, program enrollments) in Degree Navigator comes from ROSI and is refreshed once a day. Only U of T Scarborough and Faculty of Arts and Science records are currently available.

There may be instances where some students have concerns about their academic audit. Should this happen, we encourage you to use the “CONTACT US” option in Degree Navigator. The University welcomes any comments or questions.

U of T Scarborough Registrar’s Office Home Page (www.utsc.utoronto.ca/registrar)
Here you will find important announcements, registration procedures, important dates and deadlines, the course timetable for each session as well as future course offerings, final exam schedule, Subject POSI information, for payment instructions, access to services, petition resources and graduation information. From this site you can receive answers to most questions at any time of day, using AskUs at: www.utsc.utoronto.ca/askus. Visit the Registrar’s Office Homepage for this information and much more.

Course selection
In selecting their courses, students must adhere to the following regulations.
1. Prerequisites and corequisites for each course, as stated in the course description, must be met, unless waived by the instructor. The Registrar's Office does NOT require notification of a prerequisite waiver. However, when the course being waived is listed as a program requirement, students should discuss the matter in advance with their program supervisor.

2. Students may not register for credit in a course if they have already passed another course shown in the course description as an exclusion to that course.

**Note:** The Faculty of Arts & Science and the U of T Mississauga Calendar do not usually list U of T Scarborough courses as exclusions. Students taking such courses must check the U of T Scarborough Calendar for possible exclusions. Students who are in any doubt about whether or not an exclusion exists or whether or not a course can be used to meet a prerequisite of another course or can be applied to a program requirement should consult their program supervisor.

3. Students may not re-register for credit in a course if they have already passed that course. Students 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 grade point average.

4. Students may not register for credit in a course that is a specific prerequisite for a course they have already passed. When this occurs, the course is counted as "extra" (see "Extra (EXC) courses" in the "Standing in a Course" section of this Calendar). This rule does not apply in the case of co-requisite prerequisites (such as "one B-level credit in History") or in the case where one of two or more courses that are not exclusions of each other may serve as prerequisite.

5. Where students may not register in a course for credit, they may register in it as an extra course. In such cases, the course is shown on the student's record 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 meet program requirements that call specifically for it.

6. Except where specific restrictions are listed, students may normally select as many courses as they wish with each session. Students should note the following:
   - The total load maximum for a full-time student in any session is 2.5 full credits.
   - Undergraduates who are on probation should read about course load restrictions and requirements in the "Overall standing" section of this Calendar.
   - BBA students should read the "Management" section of this Calendar regarding the overall course load limit.
   - Students with approved deferred final examinations should read the "Special consideration, petitions and appeals" section of this Calendar.

7. Students who wish to register courses in the Faculty of Arts and Science or at the University of Toronto at Mississauga should refer to the "Courses on other campuses" section of this Calendar. There are limits to the number of courses that may be taken on other campuses.

8. Full-time students are those students who register in at least 1.5 full credits in a session.

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

10. Students must register for their courses in accordance with instructions issued each session by the Registrar's Office. Students who wish to change their registration:
    - May do so only until the deadlines for adding and dropping courses, stated in the Sessional Dates section of this Calendar.
    - Must notify the Registrar's Office of any change through ROSI.

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

**Registration**

Students are responsible for the accuracy of their own registration. When selecting, adding and dropping courses in ROSI, they should always list their courses upon completing the transaction. Registration consists of two basic steps:

1. Course selection, and
2. Fees payment (or an arrangement of a fee deferment).

Both must be completed by the appropriate deadlines in order to be considered a "registered" student and to retain a place in any course selected. (For deadlines and further information, see the Registration Guide or the Registrar's Office website at www.utoronto.ca/registrar.)

**Course selection**

Courses may be selected through ROSI. For regulations on course selection, see above.

**Note:** Degree students who have completed 4.0 or more full credits must be in an appropriate combination of Subject POIs before they may select courses. (This includes new students with transfer credit.)

**Fees payment**

All fees are paid to the student's financial account. Students may view their financial account on ROSI. For payment (or deferral of fees) must be made by the relevant deadline. Deadlines and information on how to pay fees is included in the Registration Guide and at www.utoronto.ca/registrar. An electronic invoice is available to view on ROSI; printed invoices are not routinely mailed to students. For further information go to www.fees.utoronto.ca or contact Student Accounts, University of Toronto, 215 Hanson St, 3rd Floor, Toronto, Ontario, M5S 1A2; telephone: 416-978-2142; fax: 416-978-2610 or 416-978-5572; email: info.studentaccounts@utoronto.ca
Course changes

Program (Subject POSI) registration
All degree students with at least 4.0 credits are required to register on ROSI in their Specialist, Major or Minor Programs. Students may register only in Programs (Subject POSI) offered by University of Toronto Scarborough. ROSI Subject POSI codes can be found at: www.utspace.utoronto.ca/subjectposi. (For regulations governing Programs, see the Programs of Study section of this Calendar.)

Summer Session
Students who registered at U of T Scarborough in the 2010 Summer, the 2010 Fall or the 2011 Winter Sessions and who are not on suspension are automatically eligible to register and may pick up their registration packages beginning in late March at the Registrar's Office. Other students who want to register should contact the Registrar's Office or visit the Registrar's Office webpage for information at www.utspace.utoronto.ca/registrar (see "Re-enrolling" in the Admissions section of this Calendar).

Fall & Winter Sessions
Students who registered at U of T Scarborough in the 2010 Fall, the 2011 Winter or the 2011 Summer Session and who are not on suspension are automatically eligible to register and may pick up their registration packages beginning in late March at the Registrar's Office. Other students who want to register should contact the Registrar's Office or visit the Registrar's Office webpage for information at www.utspace.utoronto.ca/registrar (see "Re-enrolling" in the Admissions section of this Calendar).

Year of Study
The following is used to define the year of study of degree students:
1st year - has fewer than 4.0 full credits
2nd year - has 4.0 to 8.5 full credits
3rd year - has 9.0 to 13.5 full credits
4th year - has 14.0 or more full credits
5th year - (CSEP students only) - has 19.0 or more full credits.

Course changes
Note: For ROSI hours on deadline dates, go to www.rosi.utoronto.ca/hours.html

Students may add courses or drop courses without academic penalty through ROSI up to the dates stated in the Sessional Dates section of this Calendar. The deadlines for adding or dropping courses are strictly applied.

Students who make changes through ROSI should end their transaction by listing their courses to ensure that the change has been processed properly. They will not receive written confirmation of the change but it will be recorded in the Activity log/CGP by the University which can be accessed through ROSI.

At the time students add a course to their record they are accepting responsibility for fees payment for it. Students who drop courses by the appropriate deadline may be entitled to a fees adjustment. (See the fees refund schedule and information published each session by Student Accounts at www.fees.utoronto.ca.)

Adding a course
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 timetable at www.utspace.utoronto.ca/timetable.

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 appropriate approval. Approval normally comes from the instructor of the new meeting section or from the course coordinator. Changes must be recorded at the Registrar's Office through ROSI (until the last day to add the course) and on a section change request form thereafter. Note: For some course sections, changes are not permitted on ROSI - these are listed in the timetable at www.utspace.utoronto.ca/timetable.

Dropping a course
There are two academic deadlines for dropping courses. (See the "Sessional Dates" section of this Calendar.)

- If students withdraw from a course by the earlier deadline, no record of registration is shown on the student's transcript.
- If students withdraw from a course by the later deadline, the course remains on the student's record with a grade of "W/D" indicating late withdrawal. Students are permitted to withdraw late from a maximum of 3.0 credits during their studies within the University of Toronto Scarborough, the Faculty of Arts and Science or the University of Toronto Mississauga. 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.

Withdrawal from the session
Students who drop all their current courses and do not intend to enrol in any other course in that session (Summer, Fall or Winter) must cancel their registration through ROSI. Note: Refunds of incidental fees are determined by the date of the cancellation of registration and not the date on which the last course was dropped.
Standing in a course

Grading scheme (as of September 1998)

Students are assigned a grade in each course, as follows (Grades earned prior to September 1998 remain as originally reported):

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Point Value</th>
<th>Percentage Equivalent</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
<td>90-100</td>
<td>Outstanding</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>85-89</td>
<td>Excellent</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>80-84</td>
<td>Good</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>77-79</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>73-76</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>70-72</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>67-69</td>
<td>Adequate</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>63-66</td>
<td></td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td>60-62</td>
<td></td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
<td>57-59</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>53-56</td>
<td>Marginal</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
<td>50-52</td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>No Value</td>
<td>No Value</td>
<td>Credit in a Credit/No-credit course</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td>0-49</td>
<td>Wholly Inadequate</td>
</tr>
<tr>
<td>P/F</td>
<td>No Value</td>
<td>No Value</td>
<td>Pass in a Pass/Fail course</td>
</tr>
<tr>
<td>FLNC</td>
<td>0.0</td>
<td>No Value</td>
<td>No credit in Pass/Fail course</td>
</tr>
<tr>
<td>NCR</td>
<td>No Value</td>
<td>No Value</td>
<td>No credit in Credit/No-credit course</td>
</tr>
<tr>
<td>NCP</td>
<td>0.0</td>
<td>No Value</td>
<td>No credit in Credit/No-credit course</td>
</tr>
</tbody>
</table>

Grades of "P", "NC" and "FLNC" 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.

Credit/No credit courses

Effective with the 2000 Summer Session, UTSC degree students may select up to 1.0 full credit of their degree credits to be assessed on a Credit/No Credit basis. Students must choose this mode of assessment no later than the last day to enroll in the relevant course. Requests for this type of assessment are submitted to the Registrar’s Office via eService. Once the deadline has passed, students may not under any circumstances reverse this decision.

To achieve a status of CR (Credit), a student must achieve a final mark of at least 60%. Marks below that will be assessed as NCR (No Credit). Courses with a final status of CR will count as degree credits but will have no effect on 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.

Students may exercise this option to a total of 1.0 full credit within the total number of credits required for a degree.

Note: This option is available only for UTSC courses. The choice is not restricted as to year or level of course. This option is not available to UTSC non-degree students or to students from other faculties/divisions of the University of Toronto.

Pass/Fail

Certain courses, including some visual and performing arts courses, are graded on a Pass/Fail (P/F) basis. In these courses to achieve a status of P (Pass), a student must achieve a final mark of at least 50%. Where students earn a grade of “Pass” in a P/F course, the course is not included in the grade point average; where students earn a grade of “Fail”, the course is included as an “F” (value zero) in the grade point average.

In courses graded on a Pass/Fail basis (P/F), 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 enroll 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.

Aegrotat standing

On petition, a grade of "Aegrotat" (AEG) may be assigned. This grade is assigned on the basis of 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. Where a student is assigned Aegrotat standing, the course counts as a credit but is not included in any grade point average. Students who require a letter grade will be
expected to complete the work of the course.

Extra (EXT) courses
Extra courses are those courses in which students may not register for credit (see "Course Selection" above in this section of the Calendar). 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 average nor does the course count towards the degree. However, if appropriate, it may be used to satisfy program requirements.

Other notations
The following have no grade point value and do not yield credit:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LWD</td>
<td>Late withdrawal. (See the &quot;Sessional Dates&quot; section of this Calendar. This grade is assigned to courses dropped after the initial deadline but before the examination period begins.)</td>
</tr>
<tr>
<td>WDR</td>
<td>Withdrawal by petition without academic penalty after the relevant deadline. (See &quot;Special Consideration, Petitions and Appeals&quot; below in this section of the Calendar.)</td>
</tr>
<tr>
<td>GWR</td>
<td>Grade withheld pending review</td>
</tr>
<tr>
<td>NGA</td>
<td>No grade available</td>
</tr>
<tr>
<td>SDV</td>
<td>Standing deferred on the basis of incomplete course work because of medical or similar means</td>
</tr>
<tr>
<td>IPR</td>
<td>In progress</td>
</tr>
</tbody>
</table>

Grade reports
Grades are available through ROSE. Grades are available as soon as they have been submitted and approved. Grade point averages for individual students are available shortly after the student's last grade is approved and academic standing is available in September, January, and May. In addition, letters are mailed to students who are on academic probation, suspended or refused further registration.

Overall standing

Grade point averages (GPAs)

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

2. A sessional grade point average is calculated on the basis of all courses taken in a given session (Summer, Fall, Winter) having a grade point value.

3. A cumulative grade point average is calculated on the basis of all courses taken having a grade point value.

4. An annual grade point average is calculated on the basis of all courses taken in the Fall/Winter Sessions (September-May) having a grade point value. This is provided for information only and is not used for the assessment of academic status.

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

Determination of academic status

Note: The following rules apply to all students except visiting students whose academic status is not assessed or as indicated in "Determination of academic status for students admitted on condition", "Determination of academic status for re-enrolling students at University of Toronto Scarborough" and "Determination of academic status for students in the Certificate Program in Business" below.

Academic status will be determined as follows for students who have attempted at least three full credits since beginning their studies at the University of Toronto Scarborough or in other arts and science divisions of the University: It is determined at the end of each session.

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 three full credits and have a cumulative GPA of less than 1.60 are placed on probation.
   - Students returning from suspension (see 5 below and any provision in previous rules) shall be placed on probation again.

3. Probation cleared
   Students may clear probation by achieving a cumulative GPA 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 such time as they return to good standing.

5. Suspended or refused further registration
   Students who, by the end of a given session, have not either cleared probation or 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).
Courses on other campuses

- Students who have previously incurred a twelve-month (three-session) suspension will be suspended for thirty-six months (nine sessions).
- Students who have previously incurred a thirty-six month (nine-session) suspension will be refused further registration.

Policies and procedures governing students on probation

1. Students placed on probation are required to take a course load that does not exceed 2.0 full credits per session.
2. Upon notification of probation, students enrolled in future sessions must drop all courses above the 2.0 full credits maximum. Failure to do so within 7 days of notification will result in withdrawal from all courses. Students who successfully petition to re-enroll back into the appropriate course load are subject to a late registration fee.
3. 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.
4. While on probation, students must meet with an advisor to discuss the reasons which led to the probation and to plan strategies to improve academic performance. (A list of appropriate advisors is available from the Registrar’s Office and at www.uts.ca/registration.)

Determination of academic status for students admitted on condition

In certain circumstances, students who do not meet normal admission requirements may be admitted "on condition". The academic status of such students is determined according to the following rules:
1. An academic status will be assessed for students admitted on condition at the end of the session in which they attempt their third full credit at the University of Toronto Scarborough.
2. Where such students earn a cumulative grade point average of 1.60 or better, their conditional status will be removed, and they will be said to be "in good standing".
3. Where such students earn a cumulative grade point average of less than 1.60, they will be refused further registration.

Determination of academic status for re-enrolling students at UTSC

Students who have studied at other institutions since their last registration at U of T Scarborough must arrange for official transcripts of other post-secondary studies to be sent to the University of Toronto Scarborough upon application for re-enrollment. Performance in courses taken elsewhere (including other divisions of the University of Toronto) will be taken into consideration in determining whether to approve the application and whether to make any change in the student’s academic status. Students who study at other universities without prior permission from University of Toronto Scarborough are unlikely to be eligible for transfer credit for such study. See also the section "Study at other universities".

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 cumulative grade point average 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 cumulative GPA of at least 2.00 or better are refused further registration in the Certificate Program.

Grade Reports

Final grades and academic standing are made available through ROSI. Grades are available as soon as they have been submitted and approved. Academic standing is available in September, January and May. Grade reports are sent only to students who are on academic probation, suspended or refused further registration.

Study at other institutions or other divisions of the University of Toronto

Courses taken for credit by degree students while registered at the University of Toronto's Faculty of Arts and Science or at the University of Toronto at Mississauga are normally included in University of Toronto Scarborough grade point averages, as are all University of Toronto courses taken for credit while registered at University of Toronto Scarborough. Courses taken while registered at other institutions or other divisions of the University of Toronto are not normally included in grade point averages.

Courses on other campuses

Undergraduate Courses in the Faculty of Arts & Science or at the University of Toronto Mississauga

Students are permitted to take up to 5.0 full credits in other undergraduate arts and science divisions of the University of Toronto. No more than 1.5 of a student’s three session credits at U of T Scarborough student may be taken on another campus. Note: 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. Students who first registered at UTSC in Fall 2002/Winter 2003 or earlier may, if they wish, follow the rules outlined in the 2002/2003 Calendar.

Note: The Faculty of Arts & Science and the UTSC Calendars do not normally list U of T Scarborough courses as exclusions. Students taking such courses must check the U of T Scarborough Calendar for possible exclusions. Students who are in any doubt about whether or not an exclusion exists or whether or not a course can be used to meet a prerequisite of another course or can be applied to a program requirement should consult their program supervisor.
Study At Other Universities

Students who wish to take courses at another university and have credits transferred to U of T Scarborough must receive permission from U of T Scarborough to do so prior to taking the courses. Students who intend to count the courses towards Program requirements must also obtain the approval of the Program Supervisor, in writing. Students who study at other institutions without U of T Scarborough's approval in advance do so at their own risk since permission to transfer courses for credit is not usually granted after the course has been taken. Duplication of previous study is not permitted. Students who study at another institution after leaving U of T Scarborough are required to supply official transcripts upon re-enrolment. Grades attained at other universities may affect a student's academic status.

There are three types of Programs where transfer credit is considered: Student Exchange Program, Study Elsewhere Program and Letter of Permission. To enhance their academic and cultural experience, students often choose to undertake full-time study at accredited universities abroad. Students go on Student Exchange Programs if they choose universities with which the University of Toronto has exchange agreements in place. Where the University of Toronto does not have any exchange agreements to place with the universities at which students intend to study, they can apply to go on the Study Elsewhere Program. One advantage of the Student Exchange Program is that students pay their regular tuition fees at the University of Toronto. A Letter of Permission allows a student to study at a university similar to a program at the University of Toronto and students are studying on a part-time basis. As you will note below, the regulations governing the programs differ. Another option for studying abroad is the Summer Abroad Program administered by Woodsworth College, where students are offered courses at several locations around the world. Woodsworth College welcomes applications from U of T Scarborough students. The limits specified above in the "Courses on other campuses" section of this Calendar apply. Assistance with applying to study abroad opportunities offered by the University of Toronto, is available from the International Student Centre (ISC) at U of T Scarborough. Consult the ISC in the Student Centre, Room SL151, at 416-287-7518, or at isc@ustc.utoronto.ca.

Grades and Accountability

Students registering in courses offered by the University of Toronto earn credit and receive grades in the normal manner. To receive credit for other courses, the student must earn an acceptable grade. A minimum passing grade (i.e. a C minus or better) at universities using a grading scale similar to that of the University of Toronto). Grades are not recorded on transcripts and are not included in any grade point averages. Therefore, students taking courses for transfer credit will not be able to average their grade point averages. However, grades achieved may be taken into consideration for award eligibility. If achievement is excellent or, if achievement is poor, may affect academic standing or program status. Students must arrange for the host universities to send official transcripts to U of T Scarborough promptly after completion of their courses. Students who do not register or who withdraw without academic penalty must also arrange for a letter from the Registrar of the host university confirming this. Failure to meet this or the minimum grade requirement will result in the notation of "no credit" or "failure" being entered on the student's transcript at the University of Toronto.

Fees and Aid

Students on Letters of Permission or in a Study Elsewhere program pay the appropriate fees to the host university. Those in Student Exchange programs pay tuition fees to the University of Toronto. Students who would be eligible for financial assistance through the Ontario Student Assistance Program for study at U of T Scarborough may be eligible for similar assistance. Consult Admissions and Awards (172 St. George Street) at 416-978-2100.

1. Letters of Permission

Application available at: www.ustc.utoronto.ca/registrar.

Deadline to apply: Apply at least three weeks prior to the start of the course. (Also pay attention to deadlines at the host universities.)

To take a course at another university, students must, in advance, apply for and receive a "Letter of Permission" from U of T Scarborough. To be considered, a student must have completed 4.0 full credits at U of T Scarborough and be in good standing. Courses requested must be appropriate for degree credit at U of T Scarborough. In addition the student must give reasons why the Letter of Permission is necessary. A maximum of 5.0 full credits may be obtained on a Letter of Permission and only 1.0 full credit at the C level or D level is permitted. If a student has received 5.0 or more full credits as transfer credits upon admission,
it is unlikely that a Letter of Permission will be allowed. Letters of Permission are not normally granted for study at institutions within Toronto and surrounding regions. Students must have the prerequisites for the requested courses. If a course is needed to meet a program requirement, the student must also obtain the approval of the Program Supervisor. A student who is completing the final credits for the degree on a Letter of Permission during the Winter Session may not apply to graduate at the June convocation but may apply for graduation at the November convocation.

Application Process: Obtain an application from the Registrar’s Office website or pick up an application from Admissions and Student Recruitment, Rooms AA128. Students must provide compelling reasons for needing to take courses on a Letter of Permission; therefore, a written statement giving the rationale for needing a Letter of Permission must be submitted with the application. When assessing an application, we will also take into consideration a student’s performance in courses related to the proposed course and performance in prerequisite courses. A fee will be charged for each Letter of Permission.

To receive credit for a course taken on a Letter of Permission, the course must be successfully completed with a grade above the minimum passing grade.

Special Note: French Summer Immersion Programs: Explore – Second Language Summer Program (formerly the Summer Language Intensive Program) is administered by the Council of Ministers of Education, of the Government of Canada, in co-operation with the appropriate provincial departments. In Ontario, this is the Ministry of Training, Colleges and Universities. Students interested in this five-week immersion Program (in French or elsewhere in Canada) should complete the Explore forms promptly. For deadlines and requirements information, and to download the application form, please refer to the Program website at www.jesflore.ca.

Consult with an Admissions and Student Recruitment staff member who does transfer credit evaluations and the Study Elsewhere Supervisor in French about choosing three universities offering courses that most closely correspond to the curriculum at the University of Toronto. If you wish to be considered for transfer credit, choose degree level programs offered at “degree-granting” institutions (not colleges) and sponsored by Arts and Science type faculties (not professional faculties or schools of continuing education). Submit the form to the Registrar’s Office to verify registration and mail promptly to enhance your chances of obtaining your first choice of university. Once you know the university to which you have been accepted and at least three weeks before your departure, apply for a Letter of Permission. You will be advised of the level in which you must register in order to be eligible for the credit to be transferred.

2. Study Elsewhere Program

Application available at: www.otac.utoronto.ca/registrar
Deadline to apply: February 1

Students normally apply for a Study Elsewhere year during the third year of a four-year Program. However, students may apply after completing four full credits at U of T Scadding. To be eligible for consideration, a student must normally have a cumulative grade point average of 2.5 or better. Students must normally return to U of T Scadding to complete the final year of study. A maximum of 5.0 full credits will be considered for transfer. The number of transfer credits given on admission may affect eligibility for consideration or the number of transfer credits allowed to be taken while on Study Elsewhere. Since it may take a considerable amount of time to gather information about foreign universities, students should begin their preparation early. Most often students register at the host university and follow its courses for credit. It is possible that students may arrange to take University of Toronto independent study or supervised reading courses under supervision from University of Toronto faculty.

The application requires details about the proposed courses and asks students to show how the intended studies will enhance their studies at U of T Scadding. Students who intend to count the courses towards Program requirements must obtain the approval of the Program Supervisor before submitting the application.

The application will be reviewed by the Study Elsewhere Committee.

3. Student Exchange Programs

Application available at: www.cie.utoronto.ca
Deadline to apply: Mid January for some programs and late February for most programs. (Refer to the Centre for International Experience website.)

The University of Toronto operates several institution-wide student exchange programs, providing excellent opportunities for academic and cultural experiences abroad and in other regions of Canada. Students normally participate in the third year of the four-year honours degree program. To be eligible for consideration, a student must normally have a cumulative grade point average of 2.5 or better. A maximum of 9.0 full credits will be considered for transfer. The number of transfer credits given on admission may affect eligibility for consideration or the number of transfer credits allowed to be taken while on exchange.

Interested students apply through the Centre for International Experience (CIE). A typical application is comprised of a Scadding Authorization Form, an application form, academic transcripts, a resume and photo, and two reference letters.
Candidates who qualify for consideration are invited for interviews. Applicants are selected for nomination based on the whole application package, including the interviews. If nominated, the student is asked to complete an application which is then submitted to the host institution by the JSVO on behalf of the student. Though it rarely happens, partner institutions reserve the right to refuse nominated students. As the Herstmonceux Castle Program (CUSAP) is not an exchange program the application procedure is different - contact CIE for details.

If accepted, U of T Scarborough students must obtain approval from Program Supervisors and from the Admissions and Transfer Credit Officer at U of T Scarborough for courses they intend to take, using the Course Recommendations Form issued once the student is nominated. For further information regarding studying abroad: www.cie.utoronto.ca/goin.htm

A current list of institutions offering undergraduate courses is available at: www.cie.utoronto.ca/Exchange-Programs/Exchange-Institutions.htm

For further information please contact:
Student Exchange Program
Centre for International Experience, University of Toronto
33 St. George St., Room 204, Toronto, ON M5S 2E3
Tel: 416-946-3138, Fax: 416-978-6090
Website: www.cie.utoronto.ca
Email: student.exchange@utoronto.ca

4. U of T Summer Abroad Programs
University of Toronto Summer Abroad programs are administered by Woodsworth College in several countries or regions including Australia, Central Europe, China, Fouad, England, France, Germany, Italy, Japan, Jordan, Kenya and Southern Europe. Students take regular full-year U of T Faculty of Arts and Science undergraduate degree courses that are relevant to the host site. All classes are taught in English, with the exception of some language courses. Financial aid is available for most programs. Because the Summer Abroad programs offer regular U of T courses, the course code and final grade still appear on the student's record just as any other U of T course does.

For more information, contact:
Professional and International Programs Office
Woodsworth College
119 St. George St. 5th Floor
Phone 416-978-8713
card: summer.abroad@utoronto.ca
website: www.summerabroad.utoronto.ca

Note: The limits specified above in the "Courses on other campuses" section of this Calendar apply to the Summer Abroad Program.

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

Contents
The transcript records the following information:
1. Information to identify the student: full name and university student number.
2. The student's academic record, listed chronologically by session.
   - Each course attempted, its abbreviated title, and its grade including courses from which late withdrawal has been approved (see "Dropping courses" above);
   - the sessional grade point average;
   - the cumulative grade point average at the end of the session;
   - the annual grade point average;
   - the student's academic status at the end of the session: in good standing, on academic probation, suspended for four months, suspended for twelve months, suspended for thirty-six months, refused further registration, or suspension deferred;
   - completion of Co-operative Program;
   - completion of degree and Program requirements, and date of conferral of the degree;
   - graduation with high distinction or with distinction.
3. The following kinds of special consideration granted by petition. (See "Special Consideration, Petitions and Appeals" below in this section of the Calendar.)
   - withdrawal without academic penalty from a course after the relevant deadline. (See "Standing in a course" above in this section of the Calendar.)
   - deferral of suspension;
   - award of academic standing;
   - other consideration deemed to have altered the academic record.
Ordering Official Copies
Students may obtain copies of their academic transcripts, subject to reasonable notice and upon payment of a fee (per transcript copy).
All requests for transcripts are processed centrally at the University of Toronto Transcript Centre on the St. George Campus. Copies of transcripts may be requested via ROSI at the following address: www.rosi.utoronto.ca. Requests may also be made in person or by writing to the University of Toronto Transcript Centre, 100 St. George Street, Room 4100, Toronto, ON M5S 3G3. (See also the U of T Transcript Centre website: www.arts.utoronto.ca/current/undergraduate/ transcripts/).
Payment by mail should take the form of a cheque, money order, Visa or Master Card payable to "The University of Toronto". Telephone requests cannot be accepted. To prevent tampering, most institutional recipients insist that the transcript copy be sent directly to them.

Unofficial Copies
Students can obtain an unofficial copy of their academic history at no cost directly from the Student Web Service (ROSI): www.rosi.utoronto.ca

Examinations
Examinations are held at the end of each session. Students who make personal commitments during the examination period do so at their own risk. No special consideration will be given and no special arrangements made in the event of personal commitments. Information regarding dates and times of examinations will not be given by telephone.
Students are responsible for reading the timetable carefully and appearing at the time specified. Students taking courses during the day may be required to write evening examinations and students taking evening courses may be required to write day examinations. Examinations (including deferred examinations) may be held on any day of the week. Every effort will be made to avoid scheduling them on Sundays. However, U of T Scarborough reserves the right to do so if necessary.
As soon as they are finalized, examination schedules are posted on the web at: www.utsc.utoronto.ca/registrar
The date of posting is normally no later than:
- August examination period: Mid-July
- December examination period: Mid-November
- April examination period: Mid-March

Examination timetable conflicts
Students scheduled to write two examinations at the same time should report their conflicts through eService on the Registrar’s Office web site (www.utsc.utoronto.ca/registrar). Arrangements will normally be made for students to write both examinations on the same day, with a supervised break. Where the conflict involves a St. George Campus course, arrangements will normally be made for both examinations to be written at University of Toronto Scarborough. Requests for such arrangements must be made no later than two full weeks before the commencement of examinations and will not be considered after that time.

Students with three consecutive examinations
Students may request special arrangements if they are scheduled to write examinations in three consecutive time slots as follows:
- Morning, Afternoon, Evening
- Afternoon, Evening, Morning
- Evening, Morning, Afternoon
No other combination is considered to be three consecutive time slots. Requests for such arrangements must be made through eService on the Registrar’s Office web site (www.utsc.utoronto.ca/registrar) no later than two full weeks before the commencement of examinations. Requests will not be considered after that time. Note: This accommodation does not apply to students writing deferred examinations (see “B. Final Examinations” in the “Special consideration, petitions and appeals” section of this Calendar.)

Accommodation for Religious Observances
It is the policy of the University of Toronto 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 write to the Vice Dean (vice.dean@utsc.utoronto.ca) requesting an accommodation no later than two full weeks before the commencement of examinations. This will normally be granted.

Special consideration regarding examinations
See the “Special consideration, petitions and appeals” section of this Calendar below.

Identification cards
Students will be required to identify themselves at examinations by means of their University of Toronto photo identification card (student card). Students who do not have this card should arrange to obtain one well in advance of the day of their first examination.
Use of calculators in tests and examinations
U of T Scarborough has a policy on the use of calculators in tests and examinations. Students should consult with instructors about whether the use of calculators is permissible in their course and, if so, which models are approved. The use of an unauthorized calculator may be treated as an academic offence.

Examination room regulations
1. All students are advised to familiarize themselves with the Code of Behaviour on Academic Matters which can be found at: www.governingscouncil.utoronto.ca/policies
2. Students are advised to arrive at the examination room at least twenty minutes before the scheduled examination time.
3. Invigilators will begin the actual examination at the scheduled time.
4. No persons shall be allowed in an examination room during an examination except the students writing the examination and those supervising it.
5. Candidates shall bring their photo identification cards (Tcards) and place them in a conspicuous place on their desks. Students registered in other Faculties or Colleges of the University shall bring their student cards.
6. Bags and books are to be deposited in areas designated by the invigilator and are not to be taken to the examination desk or table. Students may place their purses on the floor beneath their chairs.
7. The invigilator has the authority to assign seats to candidates.
8. No materials or electronic devices shall be brought into the examination room or used at an examination except those authorized by the Chief Proctor or Examiner. Unauthorized materials include but are not limited to: books, class notes, or aid sheets. Unauthorized electronic devices include but are not limited to: cellular telephones, laptop computers, programmable calculators, MP3 players such as iPod, Personal Digital Assistants ("PDA" such as Palm Pilot or Blackberry), pagers, electronic dictionaries, Compact Disc Players, and Mini Disc Players.
9. Candidates shall not communicate with one another in any manner whatsoever while the examinations are proceeding.
10. Candidates bringing any unauthorized materials or electronic devices into an examination room or who assist, or obtain assistance from other candidates or from an unauthorized source, are liable to penalties under the Code of Behaviour on Academic Matters, including the loss of academic credit for the course and expulsion from the University.
11. Candidates shall not leave the examination room except under supervision until at least half an hour after the examination has commenced.
12. No candidates shall remain quietly seated at their desks.
13. At the conclusion of an examination all writing within the answer books shall cease. The invigilator must not accept the papers of candidates who fail to observe this requirement.
14. Examination books and other material issued for the examination shall not be removed from the examination room without the authority of the invigilator.
15. Candidates wishing to leave before the conclusion of an examination must also remain seated until their answer books are collected.

The University is not responsible for personal property left in examination rooms.

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 the 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 that 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 that you follow the appropriate procedures and meet any published deadlines.

Policies and deadlines for courses taken on other campuses may differ from those outlined below. See the Faculty of Arts & Science and the University of Toronto Mississauga Calendars for regulations regarding their courses. You are responsible for observing the regulations governing any courses you take on other campuses. However, all U of T Scarborough students must adhere to U of T Scarborough deadlines for petitions and appeals, irrespective of the Campus on which the course is taken.

You should seek special consideration only when there are circumstances which are not only beyond your control but which you could not reasonably have anticipated or overcome and which have seriously affected your studies.

A. Term work
1. If
   * you are unable to write a term test, or
   * your performance on a test is adversely affected by illness or other extenuating circumstances, or
   * you cannot submit term work by your instructor’s deadlines
   
   Speak with your instructor as soon as possible to request special consideration. This is granted at his or her discretion. If you wish to appeal your instructor’s decision, speak with or write to the Chair of the Department offering the course.
2. If it is close to the end of term or session and you need an extension of time to complete term work or to write a term test, your instructor jointly with the Departmental Chair may give you an extension for up to a week after the last date to submit term work.

3. If you need more than a week’s extension, you must submit a formal petition (see D below). If your petition is granted, you will be given a deadline by which to complete the work.

B. Final examinations

1. As of the 2010 Summer Session, students may no longer automatically defer final examinations. If you miss a final examination, you will be required to petition through eService on the Registrar’s Office website (www.uts.utoronto.ca/registrar) within 72 hours of the missed examination.
   - Petitions will be considered only for cases of illness or extreme emergency at the time of an examination.
   - Petitions based on medical grounds must be supported by an original medical certificate stating both that the student was examined and diagnosed at the time of illness and was examined on the day of the exam or immediately after (i.e. 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 acceptable.
   - If the petition is not based on medical grounds, other supporting documentation must be provided.
   - All supporting documents must be in original form; photocopies or faxes will not be accepted.
   - Petitions to defer final examinations based on vacation, employment, or personal plans will not be considered. The examination period is published in advance and students are expected to be available during this period.

2. If you choose to write an examination, you may not petition to defer it. In truly exceptional circumstances such as a significant illness that manifests itself during an examination, you may petition to defer the exam that you have begun (see D below). This would require both corroborative evidence from the examination invigilator and documentation from a health care professional.

3. Deferred examinations for all University of Toronto Scarborough courses are held as follows:
   - exams deferred from April and May are held in the August examination period or the study break that precedes it.
   - exams deferred from August are held in the December examination period or the study break that precedes it.
   - exams deferred from December are held in the April-May examination period or the study break that precedes it.

   Note: Deferred examinations in other arts and science divisions of the University may be scheduled at times other than those listed above.

4. You must pay a fee by the given deadline to write any University of Toronto Scarborough deferred examination. Failure to pay the fee will result in loss of privilege to sit the examination.

5. If you are writing deferred examinations, your course load in the session leading up to the deferred examinations plus the number of deferred examinations you are to write may not exceed 2.5. You will have until the end of the first week of classes in that session to make appropriate adjustments to your course load. Failure to do so by the deadline (see the “Sessional Dates” section of the Calendar) will result in the cancellation of all your courses. Exceptions will be made only where there is strong and compelling evidence that a student can handle a larger course load.

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

7. If you miss a deferred examination, you will receive a mark of zero for the examination in the calculation of your final grade in the course. Only under exceptional circumstances (e.g. hospitalization or severe personal emergency), and when supported by strong and compelling evidence, will a petition for a second deferral of the examination be considered.

8. Under truly exceptional circumstances, students who will unavoidably be outside the Toronto area during the special examination period may petition to write an exam at an outside centre. Such requests must be in writing and must include 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. A non-refundable fee of $30.00 for each examination to be written at an outside centre is charged in addition to the regular deferred examination fee of $70.00. Students who are given permission to write an outside centre are also responsible for all costs of invigilation, courier charges and other related expenses. Since these may exceed $100.00 per examination, students are advised to assess the total costs before petitioning.

C. Marks and Grades

1. Checking Marks: Term Work
   - If you think that your mark on a term test or assignment has been calculated incorrectly, ask your instructor to check the mark. Do this as soon as possible and certainly before the end of the session. If you wish to appeal an instructor’s decision about the grading of term work, speak with or write to the Chair of the Department offering the course.

2. Copies of final examinations
   - Within ninety days of the relevant examination period you may obtain a photocopy of your final exam using eService on the Registrar’s Office webpage. After that date, examinations are destroyed. A non-refundable fee is charged.

   Note: Some departments do not permit copying of final examinations for particular courses. In these cases, students will be given procedures for alternate arrangements via eService.

3. Clerical Check of Marks: Final Examinations
   - If you think there is an error in the calculation of your final grade, within ninety days of the relevant examination period you may request a recheck of the calculation using eService on the Registrar’s Office webpage. (It is not necessary to purchase a copy of your exam to make this request.) A fee is charged. If an error is discovered which results in a change of the final letter grade, your fee will be refunded. Whenever a grade is changed, the amended grade will stand whether it is higher or lower.
4. Review Assigned Grades

If you feel a mark should be reviewed on term work returned to you only after the end of term and after the instructor has submitted grades for the course, you may submit a formal petition (see D below). This must be done within ninety days of the relevant examination period.

If, after reviewing a copy of a final examination, you wish to request that it be re-read, you may submit a petition for re-reading (see D below). You must do this within ninety days of the relevant examination period.

If, after reviewing a copy of a final examination, you wish to request that it be re-read, you may submit a petition for re-reading (see D below). You must do this within ninety days of the relevant examination period.

When authorized, the re-reading is arranged by the Department offering the course, which also authorizes any change in grade. Normally the re-reading is done by the course instructor, unless you make a convincing argument that the work be reviewed by another faculty member. Challenge petitions must be supported in detail and wherever possible confirmed by signed party.

Whenever a grade is changed, the amended grade will stand whether it is higher or lower.

5. Violations of the Grading Practices Policy

(a) If you think an instructor has violated the Grading Practices Policy, discuss your complaint with the instructor. If the violation relates to the announced schedule of assignments or the marking scheme, you must do this no later than the fourth week of classes. If it relates to changes in or divergence from the announced marking scheme, you must do this no later than the end of the final examination period.

(b) If this discussion does not result in a satisfactory solution, you may appeal the instructor’s decision to the Chair of the Department offering the course. If this appeal does not resolve the problem, you may appeal to the Vice-Principal (Academic) & Dean of UTSC.

(c) If you wish to withdraw from a course after the last day to withdraw without academic penalty on the grounds of a violation of the Grading Practices Policy, you must submit a formal petition (see D below). If your petition is granted because a violation of the Policy has occurred, no record of your registration in the course will appear on your transcript. You cannot petition to withdraw from a course on the grounds that no work was returned to you before the last day to withdraw without academic penalty if this is the result of your having been given an extension to complete your work for reasons relating to you and not the rest of your class.

D. Petitions

A petition is a formal request that an exception to an academic regulation be made in your case. You must have good reason to make such a request, and you must show that you have acted responsibly and with good judgment in observing the academic regulations to the extent possible. Please note that some academic matters cannot be petitioned, although sometimes these may be resolved with an instructor or a Department offering a course.

Where a petition is justified, it must be filed by the appropriate deadline (see E below). Even if a petition has been filed by the deadline, it will not be considered if documentation is not provided within ten business days of its submission (three business days for requests to add a course late).

Petitions are submitted online using eService. This service can be found on the Registrar’s Office webpage at www.uncatutoronto.ca/Registrar

1. If you think the issue is simple and the solution straightforward, you may not need advice or assistance with your petition. However, if there are more complex academic issues involved you may want to speak first with your instructor, program supervisor or discipline representative. If serious personal problems are involved, you should meet with an academic advisor in the Academic Advising & Career Centre or a personal counselor in the Health and Wellness Centre. Do not let this recommendation interfere with your submitting your petition by the deadline.

2. Submit whatever documentation is necessary to support your request.

(a) Medical certificates must show
- that you were examined at the time of illness
- the degree of disability involved
- the duration of the disability
- the practitioner’s professional opinion as to whether you should receive special consideration on medical grounds.

You are urged to use the University of Toronto Seabourough Student Medical Certificate for this purpose. A copy of the Student Medical Certificate may be downloaded from www.uncatutoronto.ca/Registrar - select the Download links. The application for examinations missed because of illness must be obtained on the day of the examination whenever possible.

(b) Statements from social workers, lawyers, clergy and other professionals must
- state the nature and extent of the problem
- give his or her professional opinion as to whether you should receive special consideration on the grounds documented in your petition.
3. Petitions for re-reading of final examinations and of term work returned to you after the end of a session and after the instructor has submitted grades for the course will be granted only if you
   • 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 misvaluation;
   • show that the alleged misvaluation 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;
   • support your argument with evidence or documentation that must be submitted with the petition as well as a photocopy of the final examination (when available). See section on "Copies of final examinations" above.
4. You will be notified online via eService of the decision on your petition. The petitions office attempts to respond as quickly as possible, normally within three weeks of submission. Please do not inquire about the progress of your petition within that period.
5. If your petition is granted, the following will be recorded on your transcript (academic record):
   • withdrawal from courses after the published deadline (LWD or WDR depending on the circumstances)
   • deferral of suspension ("suspension deferred")
   • award of segmented standing ("ASG")

In cases of error on the part of the University, including violations of the Grading Practices Policy, withdrawal from courses is not recorded on the transcript.

E. Deadlines
The deadlines below apply to the University of Toronto Scarborough. Deadlines and policies for courses taken on other campuses may differ: see the appropriate Faculty Calendar.

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 up term tests after the last day to submit term work (see the Calendar): last day of the examination period

2. Final Examinations
   • Summer, Fall and Winter Sessions
   • petitions to write deferred examinations: 72 hours after the missed examination.

3. Missed Deferred Examinations
   • petitions to write a deferred examination which has been missed: 72 hours 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 you after the end of term: ninety days after the relevant examination period
   • requests for a photocopy of a final examination: ninety days after the relevant examination period
   • requests for reconsideration of marks through the Registrar’s Office: ninety days after the relevant examination period
   • petitions for re-reading of a final examination: ninety days after the relevant examination period
F. Appeals

The Registrar (or designate) has adjudicatory power over petitions. Students who are not satisfied with the decision made by the Registrar (or designate) on a petition may request that this decision be reviewed by the Sub-committee on Standing. Such requests must be submitted using a Request for Petition Review form available at the Office of the Registrar, Room A443. Such requests must be submitted no later than ninety days after the decision of the Registrar (or designate) has been communicated to you. You will be notified, via eService, when the Sub-committee on Standing has reviewed the decision of the Registrar (or designate).

In novel or previously unexplored circumstances the Registrar (or designate) may take a petition directly to the Sub-committee on Standing. Decisions in such cases are appealable only to the Sub-committee on Academic Appeals.

Students who wish to appeal a decision of the Sub-committee on Standing, may appeal to the Sub-committee on Academic Appeals. You must file a Notice of Appeal on the form provided for this purpose by the Secretary to the Committees of Council & Academic Integrity Officer, Room A443, no later than ninety days after the decision of the Sub-committee on Standing has been posted in eService. You will be informed, in writing, of the Committee's decision.

Students who are not satisfied with the decision made by the Sub-committee on academic appeals may submit an appeal to the Academic Appeals Committee of Governing Council. You must file a Notice of Appeal to the Office of the Governing Council, Judicial Affairs Officer on the form provided for this purpose no later ninety days after the decision being appealed has been communicated to the student in writing. The normal time for a hearing and response at this level of appeal may extend from several months to almost a year.

For full information contact:
The Academic Appeals Committee of the Governing Council
University of Toronto
Simcoe Hall, Room 106
27 King's College Circle
Toronto, ON M5S 1A1
Telephone: 416-978-6576

University of Toronto Policies

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

The University has several policies that are approved by the Governing Council and which apply to all students. Each student must become familiar with the policies. The University will assume that he or she has done so. The rules and regulations of the Faculty are displayed in this Calendar. In applying to the Faculty, the student assumes certain responsibilities to the University and the Faculty and, if admitted and registered, shall be subject to all rules, regulations and policies cited in the Calendar, as amended from time to time.

All University policies can be found at: http://www.governingcouncil.utoronto.ca/policies.htm

Those which are of particular importance to students are:
- Policy on Access to Student Academic Records
- Code of Behaviour on Academic Matters
- Code of Student Conduct
- Grading Practices Policy
- Policy on Official Correspondence with Students

More information about students' rights and responsibilities can be found at:
http://www.students.utoronto.ca/The_Basics/Rights_and_Rules.htm

Maps

For directions to the University of Toronto Scarborough and for campus maps, go to: www.utsa.utoronto.ca/advancement/find/
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