Changes to the Calendar 2005-2006

The following changes have been made to the Calendar since it was published.

<table>
<thead>
<tr>
<th>Page Number</th>
<th>Change</th>
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</table>
| 9           | Sessional Dates – 2006 Winter Session  
Entry for April 17-May 2: Change 2004 Fall to 2005 Fall |
| 10          | Officers of the University of Toronto at Scarborough  
Replace the entry for Vice-Principal (Academic) & Dean with:  
Acting Vice-Principal (Academic) and Dean  
J.L. Freedman, A.B., Ph.D.  
Vice-Principal (Research and Graduate Studies)  
Add to entry: From September 1, 2005: J.R. Coleman, B.Sc., Ph.D.  
Add to entry for Special Advisor to the Principal on Campus Development:  
Until August 31, 2005  
Change entry for Chair, Department of Humanities to:  
Change entry for Chair, Department of Physical and Environmental Sciences to:  
D.E. Cormack, B.A.Sc., M.A.Sc., Ph.D.  
Change “Director of Recruitment & Registrar” to “Director, Student Recruitment & Registrar” |
| 25          | Programs of Study (Subject Posts) – Specialist Program in Management & Language.  
Change Degree from BA to BBA |
| 30          | Liberal Sciences (Specialist) - B.Sc.  
Change **CSCA06H** to **CSCA08H** |
| 33          | Specialist (Co-operative) Program in Anthropology  
Above Co-op Contact add:  
Supervisor of Studies: L. Chan Email: [chan@utsc.utoronto.ca](mailto:chan@utsc.utoronto.ca)  
Advisor: S. Bamford Email: [anthropology-supervisor-studies@utsc.utoronto.ca](mailto:anthropology-supervisor-studies@utsc.utoronto.ca) |
| 50          | Specialist Program in Conservation Biology  
Add at the end of the introductory paragraph: Admission to the program will begin in 2006/07 |
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
</table>
| **51** | Specialist (Co-operative) Program in Conservation Biology  
Add at the end of the introductory paragraph: Admission to the program will begin in 2006/07 |
| **56** | BGYC17H3  
Add MGY377H to exclusions |
| **57** | **NEW COURSE**  
BGYC31H3 Plant Development |
| **59** | BGYC62H3  
Change the second paragraph of the course description to: “Priority will be given to students in the Specialist Program in Conservation Biology and Conservation Biology Co-op Programs.” |
| **61** | BGYD45H3  
Delete BGYB31H from the prerequisites |
| **69** | CHMC42H3  
Change prerequisite CHMC42H to CHMB42H |
| **72** | Major (Co-operative) Program in City Studies  
Below title add:  
Supervisor of Studies: L. Chan Email: chan@utsc.utoronto.ca  
Advisor: J. Miron Email: miron@citieslab.utsc.utoronto.ca  
Co-op Contact: R. Louden Email: askcoop@utsc.utoronto.ca |
| **90** | CSCA02H3  
Add CSC104H to exclusions |
| **94** | Major Program in Diaspora and Transnational Studies - Group A (Humanities) courses:  
Change: ENCC13H to ENGC13H  
Change: ENCC71H to ENGC71H |
| **95** | Major Program in Diaspora and Transnational Studies – Arts & Science courses:  
Anthropology:  
Delete: JAP256H (African Systems)  
Geography:  
Delete: GGR340H from title of GGR350H |
| **96** | Major Program in Diaspora and Transnational Studies – Arts & Science courses:  
Italian:  
Change title of ITA493H to “Italian Canadian Literature II: Identity and Voice”  
Near & Middle Eastern Civilizations:  
Change NMC274Y to NMC274H  
Change NMC357H to NMC357Y  
Delete NMC385H Intellectuals of the Arab World |
| **97** | Major Program in Diaspora and Transnational Studies – Arts & Science courses:  
Political Science: |
<table>
<thead>
<tr>
<th>Page</th>
<th>Text</th>
</tr>
</thead>
</table>
| 97    | Change POL443H to POL403H  
Religion:  
Change entry for RLG430H to:  
Depending on the topic, the following course may also count:  
RLG430H Advanced Topics in Judaism |
| 122   | Major Program in Diaspora and Transnational Studies – UTM courses:  
History:  
Change HIS2XXH to HIS266H  
Change HIS3XXH to HIS366H  
Linguistics:  
Delete entire entry  
Political Science:  
Change the title of POL362H to “Colonialism/Post Colonialism: Decolonizing Political Science”  
Change the title of POL363H to “The Colonial State and its Forms of Power”  |
| 124   | **NEW COURSE**  
**ENGD12H** Studies in Life Writing  
(***NOTE:*** "2 C-level courses in English" are the prerequisites and not exclusions as originally indicated.) |
| 124   | **NEW COURSES**  
**ENGD92H** The Film Musical  
**ENGD93H** Cinema and Spectatorship |
| 135   | **EESC16H**  
Change the last sentence of the course description to: “The camp will be held in Costa Rica in May 2006.” |
| 137   | **EESD07H**  
Change the last sentence of the course description to: “The camp will be held in Costa Rica in May 2006 in conjunction with **EESC16H**.” |
| 146   | Major (Co-operative) Program in Health Studies  
Above Co-op Contact add:  
Supervisor of Studies: L. Chan Email: chan@utsc.utoronto.ca  
Advisor: L. Sawchuk Email: sawchukl@utsc.utoronto.ca |
| 147   | Major Program in Health Studies – Section 1  
Change **SOCA01Y** to **SOCA01H** & **SOCA02H** |
| 152   | **HISB40H**  
Change exclusion HIS26Y2 to HIS262Y |
| 154   | **NEW COURSE**  
**HISC15H** Europe and the Atlantic World, 1450-1800  
Pre-1815 course  
European Area |
| 155 | **HISC50H3 & HISC51H3**  
Add HIS396H to the exclusions |
| 156 | **HISC78H3**  
Add HIS325Y to the exclusions |
| 156 | **NEW COURSE**  
**HISC85H3** Early Modern France, 1500-1715  
Pre-1815 course  
European Area |
| 157 | **NEW COURSE**  
**HISD34H3** Topics in American Social and Cultural History  
American Area |
| 159 | **NEW COURSE**  
**HISD85H3** France and New France, 1500-1763  
Pre-1815 course  
European Area |
| 163 | Supervisor, Specialist (Joint) Program in Industrial Microbiology  
Change From July 1, 2005: TBA to:  
From July 1, 2005: J. Silver (416-287-7405) Email: silver@utsc.utoronto.ca |
| 164 | Industrial Microbiology  
**IMCB01H3** - Add MGY377H to exclusions  
**IMCB02H3** - Add MGY376H to exclusions |
| 178 | Specialist (Joint) Program in Journalism - Requirement d (Environmental Perspectives)  
Add: **EESA07H** Water |
| 182 | French  
Change Supervisor of Study Elsewhere to: F. Mugnier (416-287-7143) Email: mugnier@utsc.utoronto.ca |
| 190 | **FREC01H3 & FREC02H3** exclusions  
Change FSL316Y to FSL361Y |
| 194 | **LGGB33H3**  
Remove (**SPAB02H**) from the exclusions |
| 194 | **LGGC31H3**  
Delete (**SPAB01Y**) and (**SPAB03H**) from the prerequisites |
| 214 | **MGTD12H3** and **MGTD13H3**  
Change prerequisites to: [**MGTA03H** & **MGTA04H** or **MGTA02Y**] & [**MGTB04H** or (**MGTC04H**)] |
| 223 | **MATA37H3**  
Change exclusion JMB170H to JMB170Y |
| 224 | **MATC01H3**  
Change exclusion MAT30H1 to MAT301H |
<table>
<thead>
<tr>
<th>Page</th>
<th>Course Code &amp; Course Title</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>240</td>
<td><strong>NEW COURSE</strong></td>
<td>PHLA10H3 and PHLA11H3 Add (PHLA01Y) as an exclusion</td>
</tr>
<tr>
<td>242</td>
<td><strong>NEW COURSE</strong></td>
<td>PHLB55H3 Puzzles and Paradoxes</td>
</tr>
<tr>
<td>243</td>
<td><strong>NEW COURSE</strong></td>
<td>PHLB55H3 Puzzles and Paradoxes</td>
</tr>
<tr>
<td>243</td>
<td><strong>NEW COURSE</strong></td>
<td>PHLC20H3 At the end of the course description, add: For details for a given academic year, please consult the UTSC Philosophy Study Guide.</td>
</tr>
<tr>
<td>243</td>
<td><strong>NEW COURSE</strong></td>
<td>PHLC51H3 Course description changed</td>
</tr>
<tr>
<td>244</td>
<td><strong>NEW COURSE</strong></td>
<td>PHLC60H3 &amp; PHLC92H3 At the end of the course description, add: For details for a given academic year, please consult the UTSC Philosophy Study Guide.</td>
</tr>
<tr>
<td>244</td>
<td><strong>NEW COURSE</strong></td>
<td>PHLC72H3 Topics in the Philosophy of Science</td>
</tr>
<tr>
<td>244</td>
<td><strong>NEW COURSE</strong></td>
<td>PHLC89H3 Course description changed</td>
</tr>
<tr>
<td>256</td>
<td>Major Program in Astrophysics and Physics Second and Later Years: Change “And 1.0 FCE from:” to “And 1.5 FCE from:”</td>
<td></td>
</tr>
<tr>
<td>262</td>
<td>Major (Co-operative) Program in Public Policy Below title add: Supervisor of Studies: L. Chan Email: <a href="mailto:chan@utsc.utoronto.ca">chan@utsc.utoronto.ca</a> Change title of G. Skogstad from “Supervisor of Studies” to “Advisor”</td>
<td></td>
</tr>
<tr>
<td>290</td>
<td>Specialist (Co-operative) Program in Sociology Below title add: Supervisor of Studies: L. Chan Email: <a href="mailto:chan@utsc.utoronto.ca">chan@utsc.utoronto.ca</a> Change title of S. Ungar from “Supervisor of Studies” to “Advisor”</td>
<td></td>
</tr>
<tr>
<td>291</td>
<td><strong>NEW COURSE</strong></td>
<td>SOCA01Y3 Delete entire course entry</td>
</tr>
<tr>
<td>293</td>
<td><strong>NEW COURSE</strong></td>
<td>SOCB50H3 &amp; SOCB51H3 Change exclusion SOC210Y to SOC212Y</td>
</tr>
<tr>
<td>304</td>
<td><strong>NEW COURSE</strong></td>
<td>Major Program in Art History Change Supervisor of Studies to: E. Harney (416-287-7109) Email: <a href="mailto:harney@utsc.utoronto.ca">harney@utsc.utoronto.ca</a></td>
</tr>
<tr>
<td>305</td>
<td><strong>NEW COURSE</strong></td>
<td>Minor Program in Art History Change Supervisor of Studies to: E. Harney (416-287-7109) Email: <a href="mailto:harney@utsc.utoronto.ca">harney@utsc.utoronto.ca</a></td>
</tr>
<tr>
<td>Page</td>
<td>Code</td>
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<tr>
<td>306</td>
<td>VPHB53H3</td>
<td>Change exclusion FAH26H1 to FAH261H</td>
</tr>
<tr>
<td>307</td>
<td>VPHC42H3</td>
<td>Change exclusion (VPAC42Y) to (VPAC42H)</td>
</tr>
<tr>
<td>312</td>
<td></td>
<td>Major Program in Drama - Requirement 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change second entry of VPHC47H to: VPHC48H The Body: Theories and Representations Part Two</td>
</tr>
<tr>
<td>316</td>
<td></td>
<td>Major Program in Music and Culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change Supervisor of Studies to: John Mayo (416-287-7191) Email: <a href="mailto:mayo@utsc.utoronto.ca">mayo@utsc.utoronto.ca</a></td>
</tr>
<tr>
<td>316</td>
<td></td>
<td>Minor Program in Music History</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change Supervisor of Studies to: John Mayo (416-287-7191) Email: <a href="mailto:mayo@utsc.utoronto.ca">mayo@utsc.utoronto.ca</a></td>
</tr>
<tr>
<td>317</td>
<td>VPMB70H3</td>
<td>Change exclusion (VPAM98Y) to (VPMA98Y)</td>
</tr>
<tr>
<td>319</td>
<td>VPMB95H3</td>
<td>Add (VPAB95H) to the exclusions</td>
</tr>
</tbody>
</table>

Published Monday November 7th, 2005  Section last updated Mon Nov 7, 2005
Calendar

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

2005/2006

1265 Military Trail, Toronto, Ontario, Canada, M1C 1A4 (416-287-UTSC)
GREETINGS FROM THE PRINCIPAL

It is with great pleasure that I welcome new and returning students to the 2005/06 academic year.

Our campus community is dedicated to celebrating diversity and to fostering an environment in which diversity enriches campus life. We are now one of the most culturally diverse campuses in Canada with more than 100 countries identified as country of citizenship by our students. I hope that you will find many opportunities both to celebrate and to contribute to this rich mosaic and I encourage you to participate actively in shaping the future of our University.

Last year we celebrated UTSC’s 40th anniversary. This provided us an opportunity to reflect on our collective achievements and to think ahead to our exciting future. During the past forty years we have grown from a small college of 500 students and 16 faculty members to over 9,000 students and 500 faculty and staff. Recently, we have added several new, innovative and environmentally advanced facilities to accommodate our growing numbers, including a new state-of-the-art Student Centre. We have also seen wonderful growth and diversification of our programs, including most recently, the addition of interdisciplinary programs in Neuroscience, Environmental Sciences, and Visual and Performing Arts. We offer U of T’s only formal cooperative programs, the exclusive Bachelor of Business Administration degree, and unique joint programs with Centennial College.

We have welcomed the opportunities and challenges presented by the recent growth of our campus, especially as a means to enhancing the quality of our endeavors. We look forward to further developments and together we will strive for excellence in all that we do. This is our core mission and I encourage you to make it your own. I invite you to avail yourselves of the many opportunities for intellectual and personal growth that UTSC offers you and urge you to join us in our commitment to excellence. I wish you a very rewarding year.

Kwong-Loi Shum
Principal, University of Toronto at Scarborough
Vice President, University of Toronto

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Statement of Institutional Purpose

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 resolute 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 on-going 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;
• acts conscientiously in keeping with its own policies and existing legislation related to human rights, such as its Code of Behaviour on Academic Matters, its Policies and Procedures: Sexual Harassment, its Employment Equity Policy and the Human Rights Code of the Province of Ontario.
Writing at UTSC

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

It is the aim of the University of Toronto at 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. Specialised courses in academic writing are available to non-native speakers of English. The UTSC 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.

Important Notices

1. Changes in Subject Posts (Programs of Study)
   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, pre-requisites and co-requireites, grading policies, requirements for promotion and timetables without prior notice.

2. Regulations and Policies
   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 here. Applicable University policies are either fully displayed here or listed here.

   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.

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

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

8. It is the responsibility of students to see that their academic programs meet University of Toronto at Scarborough’s regulations in all respects.

9. Calendar Changes
   The information published in this calendar outlines the rules, regulations, curricula and Programs for the University of Toronto at Scarborough. The University of Toronto at Scarborough reserves the right to change without notice any information contained in this Calendar, including any rules or regulations. 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 www. utsc. utoronto.ca for the most up-to-date copy of this Calendar.

10. ACADEMIC OFFENCES ARE A SERIOUS MATTER. See the section of this Calendar on the Code of Behaviour on Academic Matters.

11. University of Toronto at Scarborough has a fire safety plan. Copies are available from Facilities Management, Room S304.

12. University of Toronto at Scarborough has a No-Smoking Policy.
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.

<table>
<thead>
<tr>
<th>ROSS section code</th>
<th>Summer Session</th>
<th>Fall &amp; Winter Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>May-June</td>
<td>September-December</td>
</tr>
<tr>
<td>S</td>
<td>June-August</td>
<td>January-April</td>
</tr>
<tr>
<td>Y</td>
<td>May-August</td>
<td>September-April</td>
</tr>
</tbody>
</table>

### 2005 Summer Session

- **May 9**: Classes begin in Y courses.
- **May 23**: Victoria Day = University closed.
- **June 12**: Last day to add Y and F courses.
- **June 20**: Last day of classes in F courses. Last day for submission of term assignments in F courses.
- **June 21**: Classes begin in S June-August courses.
- **June 28/July 1**: Reading Week. (Classes continue on other campuses.)
- **July 1**: Canada Day = University closed.
- **July 4**: Classes resume in Y & S courses.
- **July 10**: Last day to drop S courses.
- **July 24**: Last day to drop S courses without academic penalty.
- **August 1**: Civic holiday = University closed.
- **August 8**: Last day to drop S courses without academic penalty.*
- **August 8**: Last day to confirm intention to graduate at the Fall Convocation.
- **August 12**: Final examinations in Y & S courses. 2005 Winter deferred exams.
- **November 14-17**: The UTSC Fall Convocation will take place between these dates.

### 2005 Fall Session

- **September 5**: Labour Day = University closed.
- **September 12**: Classes begin in F and Y courses.
- **September 25**: Last day to add F and Y courses.
- **October 9**: Thanksgiving Day = University closed.
- **November 6**: Last day to drop F courses without academic penalty.*
- **December 5**: Last day of classes in F courses. Last day for submission of term assignments in F courses.
- **December 6-9**: Study Break.
- **December 19-21**: Final examinations in F courses. 2005 Summer deferred exams.
- **December 22-January 3**: December break = University closed.
- **February 15**: Last day to confirm intention to graduate at the Spring Convocation.

*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.

### 2006 Winter Session

- **January 9**: Classes begin in S courses and resume in Y courses.
- **January 22**: Last day to add S courses.
- **February 15**: Last day to confirm intention to graduate at the Spring Convocation.
- **February 19**: Last day to drop Y courses without academic penalty.*
- **February 20-24**: Reading Week. No classes held.
- **February 27**: Classes resume in S and Y courses.
- **March 12**: Last day to drop S courses without academic penalty.*
- **April 7**: Last day of classes in S & Y courses. Last day for submission of term assignments in S & Y courses.
- **April 10-14**: Study Break. (Classes continue on other campuses.)
- **April 14**: Good Friday = University closed.
- **April 17-21**: May 2 Final examinations in S and Y courses. 2004 Fall deferred examinations.
- **June 6-17**: The UTSC Spring Convocation will likely take place between these dates.

*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.

### Examination Schedules

As soon as they are finalized, examination schedules are posted on the web at: [http://www.ontario.ca/register](http://www.ontario.ca/register)

The date of posting is normally no later than:
- August examination period: Mid-July
- December examination period: Mid-November
- April examination period: Mid-March

### Important Changes

1. The rules determining whether students using a combination of programs to meet the degree requirements receive a Bachelor of Arts or a Bachelor of Science have changed. See the Degrees section of this Calendar for further details.
2. The rules governing overall standing have changed:
   - All students who have been placed on probation are restricted to a maximum course load of 2.0 credits (4 half credit courses) in a session and are required to meet with an advisor. Once the cumulative or sessional grade point average has been raised to 1.60, the course restriction and advising requirement will be lifted.
   - A four-month suspension has been introduced and will be applied to students who have become liable for suspension for the first time.
   - See the Overall Standing section of this Calendar for further details.
3. Deadlines for submitting petitions to sit deferred examinations and to correct errors in registration have changed. See the Special Consideration, Petitions and Appeals section of this Calendar for details.
Officers of the University of Toronto

A list of officials of the University of Toronto can be found at http://www.utoronto.ca/rosette/ije/3.01.07.pdf

Officers of the University of Toronto at Scarborough

Vice-President (U. of T.) & Principal, UTSC
K.-L. Shen, B.A., B.Phil., M.Phil., Ph.D.

Vice-Principal (Academic) & Dean
R. Buchweitz, Ph.D.

Vice-Principal (Research)
R. Bozma, B.Sc., Ph.D.

Vice-Principal (Academic Resources)
From July 1: C.C. Dyer, B.Sc., M.Sc., Ph.D.

Associate Dean
N. Cheng, B.Sc.

Assistant Principal & Chief Administrative Officer
K. McLean, B.A., M.B.A.

Assistant Principal (Students) & Executive Director of Student Affairs
T. Nowers, B.Sc., M.Ed.

Assistant Principal & Executive Director of Advancement
T.B.A.

Assistant Principal (Academic) & Director of the Office of the Vice-President & Principal

Special Adviser to the Principal on Campus Development
E. Relph, B.A., M.Phil., Ph.D.

Chair, Department of Humanities
Until June 30, 2005: E.A. Cowper, B.A., A.M., Ph.D.
From July 1, 2005: TBA

Chair, Department of Life Sciences
J.M. Kennedy, B.Sc., M.Sc., Ph.D.

Chair, Department of Management
M. Krashinsky, B.B., M.Phil., Ph.D.

Chair, Department of Computer & Mathematical Sciences
J. Scherz, B.Sc., M.Sc., Ph.D.

Chair, Department of Physical & Environmental Sciences
Until June 30, 2005: C.C. Dyer, B.Sc., M.Sc., Ph.D.
From July 1, 2005: TBA

Chair, Department of Social Sciences
J.R. Minor, B.A., M.A., M.Sc., Ph.D.

Director of Recruitment & Registrar

UTSC Departmental Structure

The University of Toronto at Scarborough is comprised of six departments made up as follows:

**Department of Humanities:**
- Classical Studies
- Cognitive Science
- Diaspora & Transnational Studies
- English
- History
- Humanities
- Journalism
- Languages & Linguistics
- Philosophy
- Visual & Performing Arts
- Women's Studies

**Department of Life Sciences:**
- Biology
- Industrial Microbiology
- Neuroscience
- Pharmacology
- Psychology

**Department of Management:**
- Economics for Management Studies
- Management

**Department of Physical & Environmental Sciences:**
- Astronomy
- Chemistry
- Environmental Science
- Physical Sciences
- Physics

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

**Department of Social Sciences:**
- Anthropology
- City Studies
- Geography
- Health Studies
- International Development Studies
- International Studies
- New Media
- Political Science
- Society and Environment
- Sociology

**Academic Resources**
- Reference & Research Assistance: 416-287-7481
- Circulation & Loans: 416-287-7482
- Library Pre-recorded Information Line: 416-287-7590
- CNS Faculty/Staff Help Desk: 416-287-7618
- CNS Student Support Office: 416-287-7391
- Writing Centre: 416-287-7562
- ESL Specialist: 416-287-7562
- Presentation Skills Instruction: 416-287-5666
- Research Skills Instruction: 416-287-5662
- Math & Statistics Help Centre: 416-287-5668
- AR Website: ars.utoronto.ca

Academic Resources (located in the new Academic Resource Centre) provides co-ordinated and comprehensive learning, teaching and research support services to UTSC students and faculty.

**Library Services**
- Website: http://library.utoronto.ca
- Hours vary. Please check the website or phone 416-287-7500.
- The Library facility is equipped with the Sun Informatics Commons with over 100 networked workstations providing access to electronic and print collections held by the University of Toronto Libraries.

Knowledgeable library staff offer many services to assist students with their research. Students are welcome to use the library for research and study purposes and are encouraged to ask for assistance when required. A variety of work spaces is available: quiet, single study carrels, group tables, group study rooms and media viewing rooms.
The library provides an extensive range of electronic, print and other media (maps, slides, films, audio, etc.) to support UTSC programs. Many course levels, both electronic and print, are available through short-term loans. Library materials held outside UTSC are just a click away through Resource Sharing Services.

Teaching and Learning Services
TLS provides Academic Learning Support Services for Students. Three Summer Learning Institutes in Research, Writing and Presentation, Mathematics Preparedness; and English Language Development assist newly admitted students to make a successful academic transition to UTSC. These services address a diversity of student needs by supporting the student learning process. Services include instruction in writing (The Writing Centre), Research Skills Instruction; Presentation Skills Instruction; math, statistics and data interpretation needs (Math & Statistics Help Centre) and ESL support. Individual appointments are supplemented with drop-in and group sessions, in-course presentations and online resources.
Website: http://ils.uta.utoronto.ca/students/default.htm

TLS assists faculty with all aspects of curricular design and implementation, and supports innovative projects that facilitate students in the attainment of their educational goals. TLS support includes an annual faculty orientation program, teaching consultations, lunch-time lecture series, teaching grants and awards, and publications on teaching and learning. A newly launched Institute for the Scholarship of Teaching and Learning in the Disciplines at UTSC supports faculty who are interested in taking a scholarly approach to teaching in their discipline. TLS supports teaching assistants through an annual TA conference, teaching consultation and a program of seminars and workshops. TLS staff are members of an instruction technology group that supports instructional multimedia and course web development on the campus.
Website: http://ils.uta.utoronto.ca/

Computing & Networking Services
CN is responsible for IT at UTSC. It designs and maintains the campus network, creates and maintains computer accounts and labs for members of the UTSC community, provides campus-wide Help Desk support, advises on and purchases computing hardware and software for administrative and academic departments on the campus, and maintains and supports library-computing. CN staff are also members of UTSC’s Instructional Technology Group – a team of multimedia specialists that supports instructional multimedia and Web development on the campus, including UTSC’s intranet (http://intranet.uta.utoronto.ca).
Website: http://cn.uta.utoronto.ca/

Student Services
Office of Student Affairs and Services
We support student success in its broadest terms—intellectual growth, personal and career development—within an environment that fosters mutual respect.
Student Affairs & Services focuses on supporting students through the promotion of Student Affairs as expressed through student involvement and student advocacy.
Student Services includes:
- **STUDENT SUCCESS**
  Visit www.uta.utoronto.ca/~mysuc. MY UTSC is a 24 hour on-line resource where students can access campus resources, tips, frequently asked questions and other information that supports student success.
The Student Mentor Program offers an opportunity for first year students to be matched with an upper year student in the same area of academic study. The primary goal of the program is to ease the transition of first year students to university life.
- **STUDENT INVOLVEMENT**
  Students can receive an Explore U or T Passport from the office and participate in the variety of activities available at the university. Each time a student becomes involved a stamp is issued in the passport. Students who complete the passport receive a letter of recognition from the university for completing the program.

- **STUDENT ADVOCACY**
  Non-academic student complaints can be explored informally and confidentially with an opportunity for a student to explore options available.
  Council on Student Services serves to enhance student life at UTSC, and to provide a voice for the student body in the cost and the delivery of student services supported by the Student Services Fee.

  The office is a Positive Space environment that welcomes sexual diversity and is supportive of LGBTQ students, staff and faculty.
  **Student Services include:**
  - Academic Advising & Career Centre
  - Accessibility Services
  - Health & Wellness Centre
  - Physical Education & Athletics
  - Registrar, Admissions and Financial Aid
  - Student Housing & Residence Life
  - Student Life, Development and Advocacy Services
  - International Student Centre at UTSC

Contact Information:
Office of Student Affairs and Services
SL 157 (Student Centre)
Phone: 416-287-7650
Website: www.uta.utoronto.ca/~mysuc

Academic Advising & Career Centre
The Academic Advising & Career Centre provides a unique comprehensive and integrated set of services to UTSC students. We help students become informed decision-makers and independent learners, to be motivated and goal-oriented - while maintaining a maximum degree of flexibility of planning towards a range of academic and career goals. Our services include:
- workshops and seminars on academic issues, learning skills, career planning and looking for employment
- individual appointments with professional career counsellors and academic advisors
- front line resource specialists who can provide information and referral
- Career Centre Online: exclusive electronic job postings for U of T students
- special events, such as the Professional and Graduate Schools Fair and the Expand Your Horizons: Volunteer and Internship Fair
- an interactive website: www.uta.utoronto.ca/counselling
Come see us in AC213 or phone 416-287-7561.

Financial Aid
The Financial Aid & Awards office provides programs and services to assist students in financing their education. Programs include OSAP and other provincial loan programs, bursaries and emergency loan support, Workstudy and scholarships/awards. The staff are available to help students make sound financial decisions through personal or group counselling opportunities.
Registrar's Office
The Registrar's Office is the place to visit for help with registration, to request a student card, request letters or forms which confirm your status at the university, order final examination copies and answer many of your general questions about academic regulations, degree requirements, and re-enrollment for those students who are returning after suspension or a 12-month absence. We are currently located in Room S303 but will be moving to the first floor of the new Arts and Administration building in August, 2005. Our telephone number is 416-287-7001.
Hours:
Monday: 10:00 a.m. - 4:30 p.m.
Tuesday & Thursday: 9:30 a.m. - 4:30 p.m.
Wednesday: 10:00 a.m. - 4:00 p.m. & 5:00 p.m. - 6:45 p.m.
Friday: 9:30 a.m. - 4:00 p.m.
For Summer hours visit our website.
Visit us:
• Interactive FAQ service at http://www.utscc.utoronto.ca/asknsc
• Website at http://www.utscc.utoronto.ca/registrar

Health & Wellness Centre
Hours: Monday - Friday - 9:00 a.m. - 5:00 p.m.
Room #: SL 270 (Student Centre)
Telephone #: 416-287-7065
E-mail: health-services@utscc.utoronto.ca
Website: http://www.utscc.utoronto.ca/wellness/
We are your convenient and confidential medical clinic on campus - much like your family doctor's office.
The Health & Wellness Centre offers three free services:
1. Health Care: is 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. UTSC international students may pick up their LHIP cards here.
2. 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.
3. Health Promotion: Aimed at supporting healthy lifestyle choices, it is an integral part of the services, and the staff often collaborate with other student services such as Physical Education & Athletics to further enhance the quality of our outreach programs.

N'sheemaehn: Child Care Centre
Hours: Monday - Friday - 7:30 a.m. - 6:00 p.m.
Your child can be as close as your next lecture hall at N'sheemaehn (pronounced Nuh-sheem-uhn) located on the UTSC 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 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 parents and UTSC appointees.

 Assistance with fees is available through a bursary for UTSC students, as well as a child care subsidy from the City of Toronto.
For more information about the Centre, or to arrange for a visit, please contact the Director, Denise MacPherson at 416-287-7624.
E-mail: childcare@utscc.utoronto.ca
Web-Site: http://www.utscc.utoronto.ca/~childcare/

Physical Education & Athletics – Recreation Centre
Hours: Monday - Friday - 7:45 a.m. - 10:30 p.m.
Saturday - Sunday - 9:00 a.m. - 4:00 p.m.
Admission hours during exam periods, Christmas holidays & summer months.
Main Office: R247
General Information #: 416-287-7090
E-mail: physed@utscc.utoronto.ca
Website: http://www.utscc.utoronto.ca/~physed/
The "mission" for the Department of Physical Education and Athletics is: "Together we learn and develop through participation in 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, intramural 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/weight training facility "THE KEY"; Brand new Cardio Theatre Space; The Pallandi Gymnasium, a triple gym for basketball, volleyball, badminton, floor hockey, indoor soccer, etc.; teaching studio for instructional and fitness classes; seven air-conditioned North American squash courts, golf "practice tee" cage to improve your swing; two multi-purpose playing fields in the valley, eleven outdoor tennis courts in the valley, locker/shower areas, including men’s and women’s sauna; athletic service counter offering program and membership information as well as playing equipment and various supplies.

University Police Services
Office Location: S-300, Main Entrance, Sciences Wing
Emergency: 416-287-7333
General: 416-287-7398
(UTSC Police are dispatched by the U of T at St. George Police Communications Centre. Please specify that you are calling from UTSC and be specific about your location.)
E-mail: police@utscc.utoronto.ca
Website: www.utscc.utoronto.ca/police/
UTSC Patrol (formerly Walk Safe): 416-287-7022
Student Crime Stoppers website: www.utscc.utoronto.ca/~cstatr/.
The members of the University Police are fully sworn peace officers who are on duty 24 hours a day, 365 days a year to serve the University community.
The University of Toronto Police are in partnership with the University community to provide a safe and secure environment in which to carry out daily activities.
The UTSC 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 UTSC 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
Sexual Harassment Education, Counselling and Complaint Office

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 inappropriate touching to sexual assault, are covered by the University’s policy. The Sexual Harassment Education, Counselling and Complaint Office was established to educate the University community on this issue. The Sexual Harassment Office also provides counselling to those people who are the object of unwanted sexual attention and to those who are alleged to have sexually harassed someone, as well as to explain the formal complaint process. Contacting the Sexual Harassment Officer is not a commitment to file a complaint and at any point a complaint can be dropped.

The services of the Sexual Harassment Office are available to all members of the University. All complaints and requests for information will be kept completely confidential unless the individuals involved approve otherwise. Members of the University of Toronto at Scarborough may arrange an appointment at Scarborough Campus with the Sexual Harassment Officer or may go to the St. George campus office, whichever is more convenient. For an appointment, information, to arrange educational sessions or to file a complaint, contact the Sexual Harassment Education, Counselling and, Complaint Office, University of Toronto, 40 Sussex Avenue (3rd floor), Toronto, Ontario, MSS 3R7 (telephone 416-978-3908).

AccessAbility Services

University Commitment

The University’s statement of institutional purpose states: “The University of Toronto is dedicated to fostering an academic community in which the learning and scholarship of every member may flourish with vigilance for the human rights of all, and a resolve to commit to the principles of equal opportunity.” The University’s “Statement of Commitment Regarding Persons with Disabilities” is part of the University’s “Obstacles Or Utopias with Disabilities Act 2004-05 and can be found on www.accessibility.utoronto.ca.

Faculty and staff carry a responsibility for creating and maintaining a community that is inclusive of persons and treats all members of the community as capable, equal, responding appropriately to requests for accommodation of a disability. The Ontario Human Rights Code “Guidelines on Accessible Education” (2004) http://www.ohrc.on.ca/english/consultations/ed-consultation report.shtml. AccessAbility Services encourages a three-way partnership with the University’s faculty, staff and students regarding appropriate accommodations, information about disabilities, and community resources.

Responsibility of Students Who have Disabilities

Students who request accommodations for their academic programs and 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 critically 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.

Accessible Services

Services are provided to students who have a physical, sensory, or learning disability, mental health disability, acquired brain injury or chronic health condition (e.g. epilepsy, cancer, bowel disease) as well as students who have temporary disabilities such as a broken dominant arm. 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:

- disability assessments
- adaptive technology assessments
- adaptive equipment
International Student Centre @ UTSC
The ISC (UTSC) provides resources, referral information, social events and cultural experiences to international students and to internationally-minded students. International students and students interested in studying abroad benefit from the community, support and information offered by the Centre.

Programs and services are delivered in the following areas:
- Orientation Events
- Services & Referral Information
- Events & Presentations
- Study Abroad Information
- English Conversation Program
- University Health Insurance Plan Information

International Students are recommended to visit our website to register with the ISC@UTSC.

Contact Information: www.utsc.utoronto.ca/isc
Room 151, Student Centre, 1265 Military Trail, Toronto, Ontario, Canada M1C 1A4
Email: isc@utsc.utoronto.ca
Telephone: 416-287-7318  Fax: 416-287-7672

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 offers advice and assistance and can recommend changes if academic or administrative procedures where this seems justified. In handling a complaint, the Ombudsperson has access to all relevant files and information and to all appropriate University officials. The Ombudsperson handles all matters in strict confidence, unless the individual involved approves otherwise. The Ombudsperson is independent of all administrative structures of the University and is accountable only to Governing Council.

The Ombudsperson maintains office hours at all three UTSC campuses (for an appointment, please telephone or e-mail us). For additional information, please visit our website at:
www.utoronto.ca/ombudsperson
222 College Street, Suite 161,
Toronto, M5T 3H1
Telephone: 416-978-4874
E-mail: ombuds.person@utoronto.ca

Degrees
University of Toronto at 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. (Students who first registered at UTSC prior to the 2004 Summer Session may elect to receive a B.A. or B.Sc. degree after having completed the requirements for a three-year (Honours) degree.)

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 mailed complete information about the time and arrangements in March for the June Convocation and in October for the Fall Convocation.

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.

Degree Requirements
Honours Degree
To qualify for an Honours degree, students must:
1. Pass at least twenty full credits.
2. Complete (a) a Specialist Program, or (b) two Major Programs, or (c) three Minor Programs, or (d) two Minor Programs and a Major Program. Combinations of programs used to meet this requirement must include at least twelve different full credits.
3. Earn a cumulative grade point average of at least 1.69.

Bachelor of Business Administration Degree
1. Pass at least twenty full credits.
2. Complete either (a) the Specialist Program in Economics for Management Studies; or (b) one of the Specialist Programs in Management listed in the Management section of this Calendar.
3. Earn a cumulative grade point average of at least 1.69.

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

B.A. and B.Sc. Degrees
The type of degree students receive is determined by the Program(s) completed. See the list in Programs of Study (Subject POSIs) 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 major, 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 at Scarborough students who have completed at least ten full credits while registered at University of Toronto at Scarborough or at the University of Toronto’s Faculty of Arts and Science 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. Students who have completed fewer than ten University of Toronto at Scarborough or Faculty of Arts & Science credits who have a cumulative grade point average of 3.20 or better will be considered on an individual basis.
Non-Degree Students

"Non-degree students" are students registered in degree courses at the University of Toronto at Scarborough:
- who are not progressing 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

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 enrolment. See the Program descriptions for admission requirements or speak to the Program Supervisor.) A list of Programs may be found in the Programs of Study (Subject POSts) section of this Calendar. Only programs offered by the University of Toronto at Scarborough may be used to meet the degree requirements.

Specialist Programs

1. Specialist Programs which consist of at least nine full credits 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

2. Major Programs which consist of six to eight full credits 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

3. Minor Programs which consist of four full credits, including at least one full-credit at the C- 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

4. Students may propose individual Programs of study, other than those described in this Calendar. Such proposals will be considered favourably 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 UTSIC and should form a logical program. The student should offer a rationale for the proposal. Proposals should be made to the Associate Dean and must be submitted at least eight months prior to the session in which the student expects to graduate.

Co-operative Programs

5. Co-operative programs are work-study Programs which are 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. Some Co-operative Programs may take up to five years to complete because of the time required for the work placements.
6. **Programs of Study (Subject Posts)**

<table>
<thead>
<tr>
<th>Area</th>
<th>Department</th>
<th>Program</th>
<th>Type</th>
<th>Degree</th>
<th>Co-op</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>Social Sciences</td>
<td>Anthropology</td>
<td>Specialist</td>
<td>BA/BSc</td>
<td>✔</td>
</tr>
<tr>
<td>Medical Anthropology</td>
<td></td>
<td></td>
<td>Major</td>
<td>BA/BSc</td>
<td>✔</td>
</tr>
<tr>
<td>Art History</td>
<td></td>
<td>See Visual &amp; Performing Arts</td>
<td>Co-op</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art Management</td>
<td></td>
<td>See Visual &amp; Performing Arts</td>
<td>Co-op</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Astronomy</td>
<td></td>
<td>See Physics</td>
<td></td>
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</tr>
<tr>
<td>Biology</td>
<td>Life Sciences</td>
<td>Biology</td>
<td>Minor</td>
<td>BSc</td>
<td>✔</td>
</tr>
<tr>
<td>Cell &amp; Molecular Biology</td>
<td></td>
<td></td>
<td>Specialist</td>
<td>BSc</td>
<td>✔</td>
</tr>
<tr>
<td>Conservation Biology</td>
<td></td>
<td></td>
<td>Specialist</td>
<td>BSc</td>
<td>✔</td>
</tr>
<tr>
<td>Human Biology</td>
<td></td>
<td></td>
<td>Specialist</td>
<td>BSc</td>
<td>✔</td>
</tr>
<tr>
<td>Integrative Biology</td>
<td></td>
<td></td>
<td>Specialist</td>
<td>BSc</td>
<td>✔</td>
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<tr>
<td>&quot;</td>
<td></td>
<td>See also Environmental Science (Environmental Biology), Industrial Microbiology &amp; Physical Sciences (Liberal Sciences)</td>
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<td></td>
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</tr>
</tbody>
</table>

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.

When special arrangements are made, students should ask their supervisor to record them on a Program exceptions form.

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 at Scarborough Programs may be used to meet degree requirements.

8. **Students** intending to enroll in any course on another campus which they intend counting towards their Program should consult with their Program Supervisor first.

9. **Students** transferring from another institution to the University of Toronto at Scarborough will be required to complete at least half of their credits and half of their Program requirements at University of Toronto at Scarborough. Students transferring from other divisions of the University of Toronto are exempt from this requirement.

**Registration in Programs which have been Withdrawn**

Normally, students will not be allowed to register in Programs that have been withdrawn. However, where the required courses for the Programs are still offered or suitable substitutions are available, students who have completed at least four full credits at the end of the session in which the Program is withdrawn may still apply for admission to the Program. Such admission will be contingent on a written agreement with the Chair of the relevant Department (or delegate), stipulating the requirements to be met and a time limit for the student’s completion of the Program. Students should note that the University is not obliged to make such arrangements.

Programs currently registered in Programs that have been withdrawn will be able to complete their Programs within a specified time frame. UTSC will either offer the courses necessary for them to complete Program requirements or will make other appropriate arrangements such as course substitutions. Students should consult with the relevant Supervisor of Studies or the Chair of the Department in which the Program was offered.

**Programs of Study (Subject Posts)**

Note: Tuition amounts vary with different University programs. Please consult the Student Accounts website at www.feets.utoronto.ca for further information.

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

The following is a list of programs currently offered by UTSC. (CMS = Department of Computer & Mathematical Sciences, PDES = Department of Physical & Environmental Sciences; Co-op = Co-operative option available.)
### Co-operative Programs

**General Information**
Co-operative Programs are work-study 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. Because of the time required for the work term, some co-op programs may take up to five years to complete.

No student may be enrolled in more than one co-op program. For a listing of co-op programs, the academic supervisors, and the sponsoring academic Department, see the Programs of Study (Subject POSs) 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 studies.

**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, 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.

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### Program Requirements
Co-op programs require at least eight four-month terms of study, and the satisfactory completion of two or three four-month work terms, as specified by the particular program. Work terms are graded Pass/Fail and their completion is recorded on the transcript as extra to the twenty full-course academic credits needed for graduating.

To maintain good standing in a co-op program, be eligible for a work term, and to receive certification for its completion on graduation, a student must:
- Follow the course of studies described for the specific program within the general requirements for the Honours B.A., B.Sc. or B.B.A. degree;
- Maintain a cumulative grade point average (CGPA) of at least 2.5 (note that this is higher than the CGPA of 1.6 required for good standing in regular non-co-op programs);
- Complete the non-credit co-op work term preparation course and any other prerequisites for the work term as required by the specific program;
- 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 full course equivalents and normally 2.5);
- Return to studies after each work term; and
- Remit 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.

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### Introduction to Co-op Work Term Preparation Course
During their first year of enrollment in a co-op program, students will participate in a co-op work term preparation course designed to prepare 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 terms that best match their interests, and to perform professionally in the workplace. The tutorial is in addition to the 20 full-course degree requirement, but satisfactory participation 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.
Co-operative Programs

Work Terms
Work terms are an integral part of the co-op program curriculum. Practical work experience in a related field is undertaken to enhance academic studies and develop professional and personal skills. 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. 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. Both the employer and the coordinator for the program will evaluate the student's performance on work terms. Students must also submit a report on each work term for evaluation. The report must be submitted no later than the end of the second week of the study term immediately following the completion of the work term. Failure to meet this deadline will result in a grade of Fail 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. 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 satisfactory evaluation for their performance and for their report on their earlier work term(s).

Course Requirements
For the academic courses required, see the calendar entry for each specific program.

Minimum Qualifications for Entry to Co-op Programs following First Year

<table>
<thead>
<tr>
<th>COMPUTER &amp; MATHEMATICAL SCIENCES</th>
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<tbody>
<tr>
<td>Computer Science (Specialist) - B.Sc.</td>
<td>4 full credits including CSCE40H, CSCE48H, CSCE45H, MAT423H, MAT439H &amp; MAT437H Cumulative GPA 2.75 minimum Information Systems Stream also requires MCTA403H &amp; MCTA404H, Joint Physics Stream also requires PH1A10H &amp; PH1A21H</td>
</tr>
<tr>
<td>Mathematics (Major) - B.Sc.</td>
<td>4 full credits including CSCE44H, MAT423H, MAT439H &amp; MAT437H Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Mathematics (Specialist) - B.Sc.</td>
<td>4 full credits including CSCE44H, MAT423H, MAT439H &amp; MAT437H, PHY1A10H &amp; PHY1A21H Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Mathematics &amp; Its Applications (Specialist) - B.Sc.</td>
<td>4 full credits including CSCE44H, MAT423H, MAT439H &amp; MAT437H Cumulative GPA 2.5 minimum Computational Physical Sciences Stream also requires ASTA10H &amp; ASTA20H, PHY1A10H &amp; PHY1A21H</td>
</tr>
<tr>
<td>Statistics (Major) - B.Sc.</td>
<td>4 full credits including CSCE44H, MAT423H, MAT439H &amp; MAT437H Cumulative GPA 2.5 minimum</td>
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<tr>
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<tr>
<td>Art &amp; Culture (Specialist) - B.A.</td>
<td>4 full credits including VPA405H &amp; 1 other full credit in VPA Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Art, History (Major) - B.A.</td>
<td>4 full credits including VPA405H &amp; 1 full credit in Art History Cumulative GPA 2.5 minimum</td>
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<td>Arts Management (Specialist) - B.A.</td>
<td>4 full credits including VPAA405H Cumulative GPA 2.5 minimum</td>
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<tr>
<td>Drama (Major) - B.A.</td>
<td>4 full credits including VPAA405H Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>English (Specialist) - B.A.</td>
<td>4 full credits including ENGR401H, ENGR402H, ENGR403H &amp; ENGR404H Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>English (Major) - B.A.</td>
<td>4 full credits including ENGR401H, ENGR402H, ENGR403H &amp; ENGR404H Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>French (Major) - B.A.</td>
<td>4 full credits including FREN401H &amp; FREN402H Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>History (Specialist) - B.A.</td>
<td>4 full credits including HIST401H &amp; HIST402H or 1 FCE at the B-level in HIST Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>History (Major) - B.A.</td>
<td>4 full credits including HIST401H &amp; HIST402H or 1 full credit at the B-level in HIST Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Linguistics (Major) - B.A.</td>
<td>4 full credits including LIN401H &amp; LIN402H Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Music &amp; Culture (Major) - B.A.</td>
<td>4 full credits including VPA405H &amp; 1 full credit in Music Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Philosophy (Major) - B.A.</td>
<td>4 full credits including 1 full credit in PHIL Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Psycholinguistics (Specialist) - B.A.</td>
<td>4 full credits including LIN401H &amp; LIN402H, PSY405H &amp; PSY406H Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Studio (Major) - B.A.</td>
<td>4 full credits including VPA405H and 1 FCE in Studio Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Women's Studies (Major) - B.A.</td>
<td>4 full credits including WSTA401H &amp; WSTA402H Cumulative GPA 2.5 minimum</td>
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<tr>
<td>Cell &amp; Molecular Biology (Specialist) - B.Sc.</td>
<td>5 full credits including BGYA401H &amp; BGYA402H, CHMA101H &amp; CHMA111H, MAT430H &amp; MAT438H &amp; MAT439H, PHYA110H &amp; PHYA210H Cumulative GPA 2.5 minimum</td>
</tr>
<tr>
<td>Conservation Biology (Specialist) - B.Sc.</td>
<td>4 full credits including BGYA401H &amp; BGYA402H, CHMA101H &amp; CHMA111H, EEB406H, GGRA201H, GGRA301H Cumulative GPA 2.5 minimum</td>
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<tr>
<td>Neuroscience (Specialist) - B.Sc.</td>
<td>4 full credits including BGYA401H &amp; BGYA402H, CHMA101H &amp; CHMA111H, PSY405H &amp; PSYA402H Cumulative GPA 2.5 minimum PSYA101H recommended</td>
</tr>
<tr>
<td>Psychology &amp; Its Applications (Specialist) - B.Sc.</td>
<td>4 full credits including PSY405H &amp; PSY406H Cumulative GPA 2.5 minimum Grade 12 O/MC Calculus recommended</td>
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### PHYSICAL & ENVIRONMENTAL SCIENCES

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<td>Environmental Chemistry</td>
<td>4.5 full credits as follows [BGA01H &amp; BGA02H, CMA01H &amp; CMA01H, EEA01H &amp; EEA02H, MAT01H &amp; MAT03H, MAT04H &amp; MAT05H] Cumulative GPA 2.5 minimum</td>
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<td>Environmental Geoscience</td>
<td>4.5 full credits as follows [BGA01H &amp; BGA02H, CMA01H &amp; CMA01H, EEA01H &amp; EEA02H, MAT01H &amp; MAT03H, MAT04H &amp; MAT05H] Cumulative GPA 2.5 minimum</td>
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<td><strong>SOCIAL SCIENCES</strong></td>
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<tr>
<td>Anthropology (Specialist)</td>
<td>4 full credits including [ANT01H &amp; ANT02H] Cumulative GPA 2.5 minimum</td>
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<tr>
<td>City Studies (Major)</td>
<td>4 full credits including [ANT01H &amp; ANT02H] Cumulative GPA 2.5 minimum</td>
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<td>Health Studies (Major)</td>
<td>4 full credits including [ANT01H &amp; ANT02H] Cumulative GPA 2.5 minimum</td>
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<tr>
<td>International Studies (Major)</td>
<td>4 full credits including [ANT01H &amp; ANT02H] Cumulative GPA 2.5 minimum</td>
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<td>International Development Studies (Specialist)</td>
<td>4 full credits including [ANT01H &amp; ANT02H] Cumulative GPA 2.5 minimum</td>
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<td>Public Policy (Major)</td>
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Joint Programs with Centennial College

The University of Toronto at 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 and visit the Joint Programs website: www.utc.utoronto.ca/jpprograms.

Specialist (Joint) Program in Environmental Science and Technology
Specialist (Joint) Program in Industrial Microbiology
Specialist (Joint) Program in Journalism
Major (Joint) Program in New Media Studies
Specialist (Joint) Program in Paramedicines

APPLICATION PROCEDURES:

Prospective Applicants: See the Joint Programs website for details about the application procedures and the Admissions section for deadlines to apply.

Once University of Toronto is notified of the application, applicants are given information about documents required to support the application.

Current UTSC Students: Application procedures can be found at the Registrar’s Office website: www.utsc.utoronto.ca/registrars/

Selection Process: The programs have enrolment limits and admission is competitive. Applicants are evaluated by both UTSC and Centennial College. Application information is shared with the relevant Program Supervisor at Centennial College.

See the detailed program description for New Media Studies, Journalism and Paramedicines for other admission or post-admission requirements.

Students Enrolled in Joint Programs: Students are encouraged to meet with their UTSC Program Supervisor regularly. As these are Joint Programs, registrarial and academic information will be shared with the relevant Program Supervisor and Departments at Centennial College.

Anthropology (B.A./B.Sc.)

Faculty List
F. D. Burton, B.Sc., M.A., (NYU), Ph.D. (CUNY), Professor Emeritus
R.W. Shirley, M.A. (Stanford), Ph.D. (Columbia), Professor Emeritus
J. Boddy, B.A. (McGill), M.A. (Calgary), Ph.D. (UBC), Professor
M. Lambrick, B.A. (McGill), M.A., Ph.D. (Michigan), F.R.S.C., Professor
M. Latza, B.A. (Kansas), M.A., Ph.D. (Toronto), Associate Professor
L. Savichuk, B.A., M.A. (Manitoba), Ph.D. (Toronto), Associate Professor
S. Bamford, B.A. (Toronto), M.A. (McMaster), M.A., Ph.D. (Virginia), Assistant Professor
M. Schillaci, B.A. (New Mexico), M.A. (Toronto), Ph.D. (New Mexico), Assistant Professor

Supervisor of Students: S. Bamford (416-287-7301)
Email: anthropology-supervisor-students@utsc.utoronto.ca

Anthropology is the study of human kind, dealing with the origin, development and nature of humans and their culture. As such it is concerned with human phenomena in the widest possible terms, both biological and cultural. It differs from other social sciences in its comparative and historical approach, and in its intimate links with the physical and natural sciences. Anthropology examines societies today and in the past, both complex civilizations and relatively small-scale non-literate societies. From this vantage point Anthropology attempts to understand the common factors underlying human existence and to isolate the causes that have led — and continue to lead — to both social and cultural change and to differences between peoples and cultures. Because of its vast subject matter, Anthropology is traditionally divided into four sub-fields: Social-Cultural Anthropology, Archaeology, Physical Anthropology and Linguistics. At the present time, University of Toronto at Scarborough offers courses in the first three areas. Students wondering about appropriate course sequences in a sub-field are invited to consult with the Supervisor of Studies and faculty in the appropriate sub-field. Students may elect either a B.A. or a B.Sc. degree in Anthropology. Most courses in Archaeology and Physical Anthropology, excluding Introduction to Anthropology, carry science credit (see course descriptions below). Consult the Supervisor of Studies for clarification.

Students are urged to consult the Supervisor of Studies no later than the third year of their program regarding course selections and requirements for graduation.

SPECIALIST (CO-OPTERATIVE) PROGRAM IN ANTHROPOLOGY (B.A./B.Sc.)

Co-op Contact: R. Louden Email: askcoop@utsc.utoronto.ca

The Co-operative Program allows students to pursue an in-depth study of Anthropology, combined with two four-month work terms in areas complementary to the aims of study. Students select a focus for their course work and work term in Biological Anthropology, Medical Anthropology, Archaeology or Social-Cultural Anthropology. Work terms can be with Canadian employers including NGOs, research institutes, the private sector, and public institutions. Students who wish to carry out their work terms in a developing country where there is no Canadian employer working, may be asked to finance the living allowance expenses of the placements themselves. The location of work terms is determined according to each student’s preferences and abilities, the availability of positions, the practicability of working in that area, and above all, the safety of the area.

Program Requirements

For information on admissions, fees, work terms, and standing in the program, please see the Co-operative Programs section in this Calendar. To be eligible for a work term, students must have completed at least 9 FCEs (full credit equivalents) including at least 3 FCEs in anthropology, and must have completed the Arts & Science Work Term Preparation course.
Course Requirements

Students must complete the requirements for the Specialist Program in Anthropology. Study of a foreign language is recommended. Within the 10 FCEs in Anthropology required for the Co-op Program, they must concentrate at least 4 FCEs in one of the following fields: Biological Anthropology, Medical Anthropology, Archaeology or Social-Cultural Anthropology.

SPECIALIST PROGRAM IN ANTHROPOLOGY (B.A./B.SC.)

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. All students are required to consult with the Supervisor of Studies regarding the selection of a course sequence appropriate to their interests and objectives.

In exceptional circumstances, supervisory research and reading courses are available at the C- and D-levels (ANTC03H, ANTC04H, ANTD31H, ANTD32H). 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 twelve FCEs (full credit equivalents), including ten in Anthropology, as indicated below.

1. ANTA01H Introduction to Anthropology: Becoming Human
2. At least one FCE from each of two of the following three streams:
   a) ANTB14H Biological Anthropology: Beginnings
   b) ANTB15H Contemporary Human Evolution and Variation
   c) ANTB194H Variations of Social Life
   d) ANTB204H Culture, Politics and Globalization.
4. Seven FCEs at the B-level or above, of which two FCEs should be at the C- or D-level. Students are encouraged to take at least one course in field methods, such as ANTC12H, ANTC25Y and ANTC06H.
5. At least 2 FCEs in disciplines other than Anthropology to be agreed upon in consultation with the Supervisor of Studies.

Students selecting a B.A. degree should endeavour to ensure that at least two FCEs from the above courses are in area studies. For a B.Sc. at least seven of the FCEs required for the program must be science credits. In addition to Anthropology courses that have been designated science credits (see course descriptions below), the following may also be counted as science credits if they are used to meet the requirement for two FCEs in disciplines other than Anthropology: HLTB01H, HLTB02H or any course in a science discipline (e.g. Biology, Environmental Science, Mathematics).

MAJOR PROGRAM IN ANTHROPOLOGY (B.A./B.SC.)

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 humankind.

Program Requirements

The Program requires completion of six FCEs (full credit equivalents) in Anthropology including:

1. ANTA01H Introduction to Anthropology: Becoming Human
2. At least one FCE from each of two of the following streams:
   a) [ANTB14H Biological Anthropology: Beginnings and ANTB15H] Contemporary Human Evolution and Variation
   b) [ANTB194H] Variations of Social Life and ANTB204H Culture, Politics and Globalization.
   d) Three additional FCEs at the B-level or above, of which at least one FCE must be at the C- or D-level.

For a B.Sc., at least four of the FCEs required for the program should carry science credit (see course descriptions below).

MINOR PROGRAM IN ANTHROPOLOGY (B.A.)

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

Program Requirements

The Program requires completion of four FCEs (full credit equivalents), as follows:

1. ANTA01H Introduction to Anthropology: Becoming Human
2. At least one FCE from among the following:
   a) [ANTB14H Biological Anthropology: Beginnings and ANTB15H] Contemporary Human Evolution and Variation
   b) ANTB194H Variations of Social Life and ANTB204H Culture, Politics and Globalization.
   d) Two additional FCEs in Anthropology, of which one FCE must be at the C- or D-level.
ANTB105Y (ANTB15Y) Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB113H Introduction to World Prehistory: The Old Stone Age
The development of art, technology, religion and lifeways of hunters and gatherers living during the Paleolithic, from two million to ten thousand years ago. Emphasis is placed on archaeological evidence bearing on the beginnings of human culture. Area course
Science credit.
Exclusion: (ANTB11Y)
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB114H Contemporary Human Evolution and Variation
Basic to the course is an understanding of the synthetic theory of evolution and its principles, processes, evidence and application of the theory. Laboratory projects acquaint the student with the methods and materials utilized by the Physical Anthropologist. Specific topics include the development of evolutionary theory, the biological basis for human variation, the evolutionary forces, human adaptability and health and disease. Science credit.
Exclusion: (ANTB105Y, ANTBA15Y)
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB188H3 The Chinese Diaspora
This course investigates the societies and cultures of the Chinese diaspora, with special but not exclusive focus on Southeast Asia and elsewhere in the Asia Pacific.
Area course.
Exclusion: [ANTA01H & ANTA02H] or permission of the instructor

ANTB188H3 The Chinese Diaspora
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: ANT100Y, (ANTA01Y)

ANTB105H1 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 eco-ecology, conservation, green consumerism, the concept of ‘wilderness’, and what happens when competing and differentially empowered views of the non-human world collide.
Exclusion: (ANTB10Y)
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB305Y, (ANTB40Y)
Prerequisite: [ANTA01H & ANTA02H]

ANTB305H1 Prehistory: survey An introduction to the analysis of archaeological artifacts of stone, ceramics, metal and bone. Emphasis on identification, construction, and function of material culture in ancient societies, together with the ways that this information helps to reconstruct the past.
Science credit.
Exclusion: (ANTB305Y, ANTBS05Y)
Prerequisite: [ANTA01H & ANTA02H]

ANTB308H3 African Cultures and Societies I: Survey
An overview of the range and diversity of African social institutions, religious beliefs and ritual, kinship, political and economic organization, pre-colonial, colonial and post-colonial experience.
Area course.
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB309H3 African Cultures and Societies II: Survey
An overview of the range and diversity of African social institutions, religious beliefs and ritual, kinship, political and economic organization, pre-colonial, colonial and post-colonial experience.
Area course.
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB310H1 Prehistory: survey An introduction to the analysis of archaeological artifacts of stone, ceramics, metal and bone. Emphasis on identification, construction, and function of material culture in ancient societies, together with the ways that this information helps to reconstruct the past.
Science credit.
Exclusion: (ANTB305Y, ANTBS05Y)
Prerequisite: [ANTA01H & ANTA02H]

ANTB310H1 Prehistory: survey An introduction to the analysis of archaeological artifacts of stone, ceramics, metal and bone. Emphasis on identification, construction, and function of material culture in ancient societies, together with the ways that this information helps to reconstruct the past.
Science credit.
Exclusion: (ANTB305Y, ANTBS05Y)
Prerequisite: [ANTA01H & ANTA02H]

ANTB311H Introduction to World Prehistory: The Old Stone Age
The development of art, technology, religion and lifeways of hunters and gatherers living during the Paleolithic, from two million to ten thousand years ago. Emphasis is placed on ecological-adaptive factors and archaeological evidence bearing on the beginnings of human culture. Area course
Science credit.
Exclusion: (ANTB11Y)
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

Family, economic, political, and religious systems are illustrated from a variety of the world's cultures.
Exclusion: ANT100Y, (ANTA01Y)

ANTB100Y, (ANTA01Y)

ANTB202H3 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 diversity and societies of varying scale.

ANTB103H 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: ANT100Y, (ANTA01Y)

ANTB100Y, (ANTA01Y)

ANTB100Y, (ANTA01Y)

ANTB100Y, (ANTA01Y)
ANTB16H3 Canadian Cultural Identities
This course has two objectives: to explore the regional and ethnic diversity of contemporary Canadian cultures, and to examine the forces which operate to bind Canadians together through Canadian literature, myths and symbolism, mass media, and political culture.
Area course.
Exclusion: [ANTB16Y]
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB19H3 Varieties of Social Life
An introductory survey of social-cultural anthropology and approaches to understanding the global diversity of human societies. Topics include the culture concept in anthropology; the nature of fieldwork, the social dimensions of language, and the various dimensions of social organization, including the cross-cultural study of economic and political institutions.
Exclusion: [ANT20Y, (ANT20V)
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB20XH Culture, Politics and Globalization
A further examination of approaches to the study of human cultural diversity. Subjects to be discussed include the study of such cultural identities as ethnicity and nationalism, globalization and the creation of a global culture, the political dimensions of culture, religion, and the anthropological study of kinship, marriage and family.
Exclusion: [ANT20Y, (ANT20V]
Prerequisite: [ANTM01H & ANTA02H] or permission of the instructor

ANTC22YH Primate Behaviour
A general introduction to the study of the life ways of non-human primates with particular emphasis on observing and recording primate behaviour. Readings and lectures develop the context in which observations are analyzed.
Tools of recording and analysis are practiced and presented in seminars.
Science credit.
Exclusion: [ANTC22Y]
Prerequisite: [ANTA01H & ANTA02H] or [ANTB16H & ANTA01H] or [PSY101H & PSY102H]

ANTC253YH Myth, Movies & Monkeys: The Construction of Human Nature
A fundamental question in anthropology asks: is there a "human nature"? We investigate this desire to see ourselves reflected in other creatures by exploring myths, legends, and film which use monkeys and apes as metaphor virtually creating the "infinite" being of humans.
Science credit.
Prerequisite: ANTA01H & ANTA02H recommended

ANTC254YH Conceptualizing Religion
Anthropological approaches to the origin and function of religion, and the nature of symbolism, myth, ritual, sorcery, spirit possession, and cosmology, with primary reference to the religious worlds of small-scale societies.
Exclusion: [ANT244H, (ANT205Y]
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor. ANTB19H & ANTB30H recommended

ANTC256YH First Nations of North America: Hunters, Gatherers, Farmers
An introduction to the origin and diversification of aboriginal traditions in Canada and the United States from the late Pleistocene to the present. The course will emphasize environmental and social factors in the processes of culture change including the origins of food production and the growth of ethnic diversity.
Area course.
Science credit.
Exclusion: [ANTC23Y, (ANTC3BY]
Prerequisite: ANTA01H & ANTA02H

ANTC257YH First Nations of North America: Social Complexity and the State
The rise of social complexity among aboriginal peoples in the Americas, with examples drawn from the Northwest Coast, the Pueblo, the Mississippian people, the Maya and the Aztec. Emphasis on social, political and belief systems, together with a consideration of the role of war, art and science in developing states.
Area course.
Science credit.
Exclusion: [ANTC3BY, (ANTC35Y]
Prerequisite: ANTA01H & ANTA02H

ANTC344H3 Peoples of the Middle East: An Introduction
An exploration of the range of cultures, languages, religions, and practices of the Middle East and North Africa, with particular focus on Islam.
Area course.
Exclusion: [ANTB35Y]
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTC350H3 Health and the Urban Environment
Described literally as "deathtraps of humanity", 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.
Science credit.
Prerequisite: Any A-level course

ANTC353H3 ANTCD453H3 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 area course depending on topic.
Prerequisite: Permission of the instructor & ANTA01H & ANTA02H & one B-level full credit in Anthropology.

ANTC363H3 African Cultures and Societies II: Case Studies
Complements ANTB05H by giving closer examination to selected issues in African ethnography. Case studies from different parts of the continent are used to highlight specific themes and issues.
Area course.
Exclusion: ANTB05H or ANTB09H
Prerequisite: permission of the instructor

ANTC3713 The Making of Modern Life: Aesthetics of Contemporary Society
Complements ANTB04H. An investigation of the origins and development of material and intangible artifacts which make up modern society. We will examine tools, toys, ornaments, housing, clothing, food and communications media, and we will consider this information as used in culture resource management, forensic anthropology and museology.
Science credit.
Exclusion: [ANTD03Y, (ANTB04Y]
Prerequisite: ANTB04H or permission of the instructor. ANTB39H or ANTB11H recommended

ANTC381H3 Development, Inequality and Social Change in Latin America
Addresses agrarian politics, immigration, modernization and dependency theories, structural adjustment and free trade, U.S. foreign policy and militarism, especially post-World War II, as well as revolution, liberation theology and other movements for alternative development. Who speaks for the poor and marginalized? Who is served by development aid?
Area course.
Limited enrolment: 60
Prerequisite: ANTB19H or ANTB20H

ANTC385H3 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.
Limited enrolment: 25
Prerequisite: [ANTA01H & ANTB26H] or permission of the instructor
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 analysis; some free time. Evaluation: participation, preliminary research, field notes, log book and seminar or paper. Permission required. Contact Professor Burton for information. Burton@utsc.utoronto.ca 416-287-7345. Science credit. Limited enrollment: 10 Prerequisite: [ANTB22Y & ANT220H] or permission of the instructor

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. Exclusion: [ANTC11Y] Prerequisite: [ANTB19H1 & ANT202H] or permission of the instructor

ANTC15H3 Gender and Sexualities

Complements and expands ANT14H4 by exploring cultural constructions of male and female in a range of societies and institutions. Exclusion: [ANTC11Y] Prerequisite: [ANTB20Y & ANT202H] or permission of the instructor. ANT14H4 recommended

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 specialization, 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. Exclusion: [ANT32Y, ANT16Y] Prerequisite: [ANTA01H & ANT202H] or permission of the instructor

ANTC17H3 Human Origins: New Discoveries

The study of human origins is 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 specialization and hominisation with specific reference to the emergence of Homo. Labs permit contact with fossils in casts. Science credit. Exclusion: [ANT332Y, ANT16Y] Prerequisite: [ANTA01H & ANT202H] or permission of the instructor

ANTC18H3 Urban Anthropology

Examines the social organisation and cultural formations of groups in cities in comparative perspective, with special attention to innovative research bearing on urban governance, cultural diversity, and political contortions over urban space. Limited enrollment: 60 Prerequisite: ANT201H & ANT202H. ANT205H recommended

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: [ANTA01H & ANT202H] or permission of the instructor

ANTC20H3 Gifts, Money and Morality

What limits exist or can be set to commoditised 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 ethnography project on money in our own society, a subject at once obvious and mysterious. Prerequisite: [ANTA01H & ANT202H] or permission of the instructor. ANT201H & ANT202H recommended.

ANTC21H3 Canadian Native Peoples: This course examines the traditional cultures of Canadian native peoples through the media of archaeology, ethno-history and oral tradition. Questions to be considered include: the nature and source of political authority, issues of self-government, and the balance between development and tradition in reserve and urban settings. Area course. Exclusion: [ANTB21Y] Prerequisite: Any B-level course in Anthropology or permission of the instructor

ANTC22H3 Canadian Native Peoples: Contemporary Concerns

This course examines contemporary issues which concern Canadian native peoples. Questions to be considered involve: the nature and source of political authority, the status and rights of women and off-reserve individuals, definition of educational systems, enforcement mechanisms and the rights of the individual and the band to personal and collective freedom. Area course. Exclusion: [ANTB22Y] Prerequisite: ANT221H

ANTC23H3 Anthropology and Psychology

How are we to understand the relationship between psychic universals and diverse cultural and social forms in the constitution of human experience? Anthropology’s dialogue with Freud; cultural construction and expression of emotions, personhood, and self. Science credit. Prerequisite: [ANTA02H1 & ANT202H] ANT191H1 & ANT202H recommended.

ANTC24H3 The Theory of Archaeology: Basic Concepts

Introduces fundamental concepts of prehistoric archaeology in the New and Old Worlds, including dating methods, site survey, and excavation techniques. Science credit. Exclusion: [ANT200Y, ANT206Y, ANT205Y] Prerequisite: [ANTA01H & ANTA02H] [ANT191H & ANT202H] or [ANTA01H & ANT309H] are recommended.

ANTC25H3 The Practice of Archaeology: Practical Applications in a Global Society

Introduces theoretical and methodological concepts in archaeology including questions related to reconstruction of prehistoric environments and the identification and explanation of social/cultural systems. It will also examine the role of archaeology in modern society through Culture Resource Management. Science credit. Exclusion: [ANT206Y, ANT205Y, ANT202Y] Prerequisite: [ANTA01H & ANTA02H] [ANTA01H & ANT202H] or [ANTA01H & ANT309H] are recommended.

ANTC28Y3 Introduction to Archaeological Field Methods

Introduction and training in the methods and theory of archaeological fieldwork, including excavation, environmental evaluation, surveys and mapping methods, and basic artifact identification and conservation. Special components on criteria relevant to the site including site history, soils and natural resources. This course takes place at an archaeological site, and it involves full-time excavation (all day, five days per week) over the full duration of the course. Science credit. Exclusion: [ANT31Y] Prerequisite: Any B-level course in Archaeology or Physical Anthropology or a B-level course in a cognate discipline

ANTC31H3 Ritual and Religious Action

The nature and logic of prehistoric religious practices and projects; the interface of religion, power, morality, and history in the contemporary world. Exclusion: [ANTA1Y, ANTCOSY] Prerequisite: [ANTA02H1 & ANTA02H] or permission of the instructor. ANT201H & ANT202H recommended

ANTC32H3 Political Anthropology

A general survey of the role of political systems in a largely "development" framework. Exclusion: [ANTB32H] Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor. ANT201H & ANT202H recommended
ANTC 349H The Anthropology of Transnationism

Considers dimensions of transnationalism as a mode of human sociability and site for cultural production. Topics covered include transnational labor migration and labor circuits, the transnational dissemination of electronic imagery, emergence of transnational consumer publics, transnational movements by refugees and social movement activists, and border crossing by international NGOs.

Limited enrollment: 60
Prerequisite: ANTB19H & ANTB20H

ANTC 355H Quantitative Methods in Anthropology

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

Exclusion: [ANTB33H], [ECMB11H], [PSYB07H], [SOCI35H]
Prerequisite: ANTA01H & ANTA02H. ANTB15H & ANTC20H are recommended

ANTC 202H Foundation and Theoretical Issues in Anthropological Demography

An examination of the biological, demographic, ecological and socio-cultural determinants of human and non-human population structure and the interrelationships among them. Lecture topics include population and societal strategies for survival and adaptation, population structure on small-scale and urban societies, and palaeodemography and palaeopathology.

Exclusion: [ANTC09H]
Prerequisite: [ANTB14H] & [ANTB15H] or permission of the instructor

ANTC 400H Methods and Analysis in Anthropological Demography

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

Exclusion: [ANTC14H] or permission of the instructor

Prerequisite: ANTC49H or permission of the instructor

ANTC 401H Environmental Stress, Culture and Human Adaptability

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

Exclusion: [ANTB44Y], [ANTC41Y]
Prerequisite: [ANTB14H] & [ANTB15H] or [BOYA01H] & [BOYA02H]

ANTC 429H 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. Credit.

Exclusion: [ANTB44Y], [ANTC41Y]
Prerequisite: ANTC41H or permission of instructor

ANTC 411H Human Osteology

A "hands-on" laboratory course which introduces students to the methods of analyzing human skeletal remains. The first half of the course is the "Bone Biology / Anatomy" part, while the second half is the "Anthropological" unit. Lectures and labs will cover (1) the composition and microstructure of bone, (2) the development, growth, remodeling and plasticity of bone, and (3) the detailed "normal" gross anatomy of the skeleton and its variation.

Credit.

Limited enrollment: 40
Exclusion: ANTC33Y, ANTC34Y, [ANTC04Y]
Prerequisite: [ANTB14H] & [ANTB15H] or [BOYA01H] & [BOYA02H], ANTC16H & ANTC17H recommended

ANTC 424H 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) osteometric description, (4) geometric trait description, (5) methods of estimating age at death and sex; (6) quantitative analysis of metric and nonmetric data; and (7) paleopathology. Credit.

Limited enrollment: 40
Exclusion: ANTC34H, ANTC33Y, (ANTC41Y)
Prerequisite: ANTC47H or permission of instructor

ANTC 503H Death and Burial

A cross-cultural study of human responses to the problem of death and suitable treatment of the dead from the Paleolithic to the present, including the origins of symbolic thought and the impact of cultural complexity, urbanization and social stratification. Credit.

Exclusion: [ANTC53Y]
Prerequisite: ANTC41H or permission of the instructor

ANTC 505H Muslim Societies

Complements ANTB54H by more closely considering selected issues in societies professing Islam, based on ethnographic case studies from the Middle East, Africa, and Asia. Credit.

Exclusion: [ANTC35Y]
Prerequisite: ANTB44H or permission of the instructor

ANTC 506H Fieldwork in Social and Cultural Anthropology

An investigation of how social-cultural anthropologists collect data and conduct fieldwork. Students complement reading and lectures on method with designing and carrying out a small project. Credit.

Exclusion: ANTC41Y or ANTA02H, plus one other full credit at B- or C+ level in Anthropology

ANTC 507H 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) osteometric description, (4) geometric trait description, (5) methods of estimating age at death and sex; (6) quantitative analysis of metric and nonmetric data; and (7) paleopathology. Credit.

Limited enrollment: 25 with preference given to students in anthropology and social and cultural development studies.

Prerequisite: [ANTB19H] & [ANTB20H] or permission of the instructor

ANTC 511H 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. Credit.

Exclusion: [ANTC51Y]
Prerequisite: [ANTB19H] & [ANTB20H] or permission of the instructor

ANTC 523H Medical Anthropology: Biological and Demographic Perspectives

The examination of health and disease in ecological and socio-cultural perspective. Emphasis is placed on variability of populations in disease susceptibility and resistance in an evolutionary context. With its sister course, ANTC51H, 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. Credit.

Exclusion: [ANTC51Y]
Prerequisite: [ANTB11H] & [ANTB15H] or permission of the instructor

ANTC 535H The Anthropology of Food: Human Needs

This course examines the historical and continuing relationship of humans to their food sources. We investigate changes in diet over millennia as humans moved from gatherers-hunters to domesticators of food sources. Topics to be discussed include human dietary needs, the primae base, malnutrition and its consequences. Credit.

Exclusion: [ANTC54Y]
Prerequisite: ANTA01H & ANTA02H, plus one other full credit at B- or C+ level in Anthropology
ANTC451H The Anthropology of Food: Consuming Passions
The role of food as nutrient and its social significance as symbol constitute the theme of this course. Topics to be addressed include: human dietary needs and the myth of man as the "natural" or "instinctual" hunter, gatherer, medicine man, food, and the green and blue revolutions and their implications.

Science credit: Exclusion: ANTC307H
Prerequisite: ANTA010H & ANTA021H, plus one full credit at B- or C-level in Anthropology

ANTC453H An Introduction to Pacific Island Societies
Introduces the cultures and peoples of the Pacific. Examines the ethnography of the region, and the unique contributions that Pacific scholarship has made to the development of anthropological theory. Explores how practices of exchange, ritual, notions of gender, death and images of the body serve as the basis of social organization.

Area course:
Prerequisite: ANTA010H & ANTA021H, ANTB101H & ANTB201H recommended

ANTD01H 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. Seminar. Limited enrolment: 25.

Prerequisite: Two of the following: ANTC103H, ANTC105H, ANTC201H, ANTC203H, ANTC231H, ANTC251H

ANTD156H3 Frontiers of Anthropology
An advanced seminar course primarily for majors and specialists in anthropology. Topic to be announced. May be science credit depending on topic.

Prerequisite: Permission of the instructor

ANTD160H3 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: Exclusion: ANTC451H
Prerequisite: ANTC203H and one C-level full credit in Physical Anthropology

ANTD260H Ethnomedicine
This seminar course focuses on the interaction of body, mind, and self in cross-cultural perspective. Particular attention will be paid to the analysts of symbols, rituals, and the meaningfulness of bodily experience; to issues of gender and power; and to the healing process.

Limited enrolment: 20
Exclusion: ANTC460H
Prerequisite: ANTC081H or permission of instructor. ANTC201H & ANTC145H & ANTC151H are highly recommended.

ANTD264H3 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 hermeneutical approaches will be considered through selected writings from such major figures as Tylor, Durkheim, Boas, 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: ANTA011H & ANTA021H & ANTB101H & ANTB201H or permission of the instructor

ANTD363H ANTBD263H 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 of 3 hours is normally required to be considered for these courses. May be science credit or area course depending on topic.

Prerequisite: Permission of the instructor & ANTA011H & ANTA021H & two full credits in Anthropology, one of which must be at the C-level

Art History
See the Visual and Performing Arts section of this Calendar.

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

Astronomy
(B.Sc.)
Faculty List
Peter Krook, B.Sc., M.Sc., (Queens), Ph.D. (Manchester), D.Sc. (Manchester), Professor Emeritus
Piotr Artymowicz, M.Sc., Ph.D. (Warsaw), Professor
C.C. Dyer, B.Sc. (Bishop's); M.Sc., Ph.D. (Toronto), Professor

Astronomy is at the same time one of the oldest and one of the most dynamic areas of science. It is basically 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 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 clusters of galaxies and cosmic voids. The past quarter century has 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 further understanding. 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.

The full range of modern astronomical topics is covered in the introductory courses ASTA01H and ASTA02H. For students wishing to further their study in astronomy, there are a number of B-level courses, which are integral components of a number of the Physical Sciences Specialist Programs. In addition, the course ASTB01H 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.

Please refer to the searchable in the Physical Sciences Scarborough section of this Calendar for a list of the Programs offered. Students interested in Programs which involve Astronomy are referred to Physics and its Applications in the Physics section and Physical and Mathematical Sciences in the Physical Sciences Scarborough section.

MAJOR PROGRAM IN ASTROPHYSICS AND PHYSICS
Superiorites: C.C. Dyer. Email: dyer@aset.scarboro.utoronto.ca, M.J.G. Lee. Email: lee@aset.scarboro.utoronto.ca

Please refer to the Physics section of this Calendar for details of the Program.

Teaching Concentration and the Astronomy and Physics Concentration in the Specialist Program in Physics and its Applications, and the Major Program in Astrophysics and Physics are eligible for inclusion in the Co-operative Program in Physical Sciences and the Early Teacher Project in Physical Sciences. Please refer to the Physical Sciences Scarborough and the Co-operative Programs sections of this Calendar for further information.

SPECIALIST PROGRAM IN LIBERAL SCIENCES
(See the Physical Sciences Scarborough section of this Calendar.)
Astronomy

ASTA01H Introduction to Astronomy and Astrophysics I: The Sun and Planets
The solar neighborhood 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 structures. The course is suitable for both science and non-science students.

Exclusion: (ASTA03Y, AST101H, AST121H, AST221H, AST232H)

ASTA02H Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
This course uses the basis developed in ASTA01H 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. Current models and methods of study of the universe will be considered. The course is suitable for both science and non-science students.

Exclusion: (ASTA03Y, AST121H, AST201H, AST211H, AST222H)
Prerequisite: ASTA01H

ASTA03H 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.

Exclusion: AST210H
Prerequisite: Four full-credit equivalents

ASTB21H Solar System and Stellar Astrophysics
The application of physical principles to study the structure and evolution of astrophysical bodies, particularly planets and stars and their locale and motion in the universe.

The motion of these bodies can usually be described using Kepler's laws of planetary motion, which will be considered as a consequence of Newtonian gravitation's inverse square force law. The use of the Euler-Lagrange equations to describe such mechanical systems will be considered.

Exclusions: (ASTB05H), (ASTC05H), (ASTC05JH), (ASTC05JH)
Prerequisites: [ASTA02H & ASTA02H or (ASTA03Y) & (MAT134H) (MAT134H)] & (MAT244H) & (MAT370H) or (MAT244H) & (PHY211H)
Corequisites: MATB41H

ASTC09H Research Topics in Astronomy
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 ("manuscript") 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. For more detailed information see Professor Dyar. The bibliographies are dependent upon the topic selected.

Students are advised that they must obtain consent from the supervising instructor before registering for this course.

Exclusion: AST242H
Prerequisite: (ASTA01H & ASTA02H or (ASTA03Y) or (ASTC223H)) & (PHYB21H) & permission of the instructor

ASTC22H Galactic and Extragalactic Astrophysics
The study of the structure of the Galaxy and other galaxies, and the place of galaxies, clusters of galaxies, and other large-scale systems, in the Universe, using the principles of physics and mathematics.

Building on the knowledge of the structure of individual astrophysical bodies, their place in microworld, medium, and larger scale systems in the Universe, such as star clusters, galaxies, and clusters of galaxies, will be considered. Leading to the consideration of the Universe as a whole system. Questions concerning the possible origins of structure in the Universe, its final end-state, and related topics in cosmology will be considered. Exclusion: (ASTB05H), (ASTC05H), (ASTC05JH), (AST222H), (ASTB22H)
Prerequisites: ASTB12H & MATB41H
Corequisites: MATB42H

Biologv

(B.Sc.)

Faculty List
C. Niedzwiecki, 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
A.I. Weatherley, B.Sc. (Sydney), M.Sc. (Tasmania), Ph.D. (Glasgow), Professor Emeritus
G.R. Williams, B.Sc., Ph.D., D.Sc. (Liverpool), F.R.S.C., Professor Emeritus
R.E. Dinger, B.Sc., Ph.D., (California, Davis), Associate Professor Emeritus
R. Boornout, B.Sc. (Calgary), Ph.D. (British Columbia), Professor
I.R. Brown, B.Sc. (Carleton), Ph.D. (Texas), Professor
J.W. Ward, B.A. (Mount Allison), Ph.D. (McGill), Professor
J.C. Silver, B.Sc., Ph.D. (CUNY), Professor
R.P. Thompson, M.A., Ph.D. (Toronto), Professor
D.D. Williams, B.Sc. (University College, North Wales), Dip. Ed. (Liverpool), M.Sc., Ph.D. (Waterloo), D.Sc. (Wales), Professor
J.H. Yousse, B.A. (Victoria), M.Sc. (McGill), Ph.D. (Western Ontario), Professor
R.R. Fulthone, B.Sc., M.Sc., (Toronto), Ph.D. (Carleton), Associate Professor
C.A. Hasenjamp, B.Sc., (Toronto), M.Sc., Ph.D. (Florida State), Associate Professor
J.L. Kronecker, B.Sc. (Würzburg), Ph.D. (British Columbia), Associate Professor
C.D. Riggio, B.Sc. (North Carolina), Ph.D. (Florida State), Associate Professor
G.C. Vörsterberg, B.Sc., M.Sc. (Western Ontario), Ph.D. (Queen's), Associate Professor
M.C. Andrade, B.Sc. (Simon Fraser), M.Sc. (Toronto), Ph.D. (Cornell), Assistant Professor
R.E. Harrison, B.Sc. (Winnipeg), M.Sc. (Münster), Ph.D. (Toronto), Assistant Professor
L.L. Marne, B.Sc. (Oberlin College), M.Sc., Ph.D. (University of Tennessee), Assistant Professor
A.C. Mason, B.Sc. (Guelph), M.Sc. (Toronto), Professor
S.G. Reid, B.Sc. (Ottawa), Ph.D. (Ottawa), Assistant Professor
B.A. Stewart, B.Sc. (Guelph), M.Sc., Ph.D. (Toronto), Assistant Professor
T. Ger, B.Sc., M.Sc. (Toronto), Ph.D. (Texas A&M), Lecturer

Associate Chair: C. Hasenjamp

Six Specialist Programs are offered in Biology: these include Conservation Biology (with or without Co-op), Human Biology, Cell and Molecular Biology (with or without Co-op), and Integrative Biology. A Major Program in Integrative Biology, and a Minor in Biology are also available. Except for the Minor Program, all of our programs require students to take a core program of Biology courses from the major disciplines in biology. In the Conservation Biology Program students are exposed to the theory and practice of conserving species and global environments. In the Cell and Molecular Biology Programs students explore the cellular and sub-cellular mechanisms underlying organismal processes. The Human Biology Specialist program emphasizes human issues and in human health. The Integrative Biology Specialist Program approaches questions about the natural world from a variety of perspectives, with course work in a range of biology disciplines. The Integrative Biology Major Program combines studies in Biology with studies in another discipline. The Minor Program in Biology is intended
for students who have an interest in Biology, but wish to focus their studies in a different discipline.

In addition to programs in Biology, a Joint Specialist Program with Centennial College exists in Industrial Microbiology. This program combines a selection of University biology courses with practical Industrial Microbiology courses at Centennial College.

Students are advised to consult the specific Program requirements for their degree, and to meet with the appropriate Program Supervisor for advice on completion of their program requirements. In few instances courses from other campuses may be used to satisfy Program requirements, but such substitutions must be pre-approved by the Supervisor of Studies. Students are encouraged to check thoroughly the information that follows. Other useful information (including FAQs) can be found in the Life Sciences Biology Handbook at www.utac.utoronto.ca/lifesci/bio-handbook/.

Courses in Neuroscience and Environmental Science
NRJC34H1, Neuroethology (Invertebrate Neurobiology), NROCS5H1 Developmental Neurobiology, RREE84H1 Biodiversity and Biogeography and RREE86H1 Microbial Biochemistry, were previously Biology courses and may still be used as Biology courses to satisfy requirements in the Major and Specialist Programs in Integrative Biology.

Admissions

Biology Programs
All programs in Biology, except the Minor Program, have enrolment limits. Students apply to the program after completing a minimum of 4.0 FCEs (full credit equivalents), including 1.0 FCE in Biology, 1.0 FCE in Chemistry, and 0.5 FCE in Mathematics or Statistics. Admission is based on cumulative grade point average with a 2.8 or greater GPA guaranteeing admission. Students with a GPA lower than 2.8 but greater than 2.0 will be admitted to the extent that laboratory course spaces are available. The minimum GPA used to admit these students will be determined in May (after the Winter Session) and August (after the Summer Session). Application for admission is made to the Registrar through RSSI, in April/May and July/August.

Biology courses
Priority access to B-, C- and D-level Biology courses is given to Majors and Specialists in Biology 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 in the third week.

SPECIALIST PROGRAM IN CELL, AND MOLECULAR BIOLOGY

Supervisor: Until December 31, 2005: D. Riggs. Email: riggs@utac.utoronto.ca
From January 1, 2006: C. Hasenkamp. Email: hasenkamp@utac.utoronto.ca

Program Requirements
This Program consists of 13.5 required FCEs (full credit equivalents). Please note 20 FCEs are required to complete an Honours Degree. Students in this Program MUST take CHMA10H1, CHMA11H1 during the first year, and CHMB40H1, CHMB40H2 during the second year to stream properly through the Program. The required credits are:

1. 4.0 FCEs consisting of the core curriculum components: BGYA01H1, BGYA02H1, BGYB01H1, BGYB01H2, BGYB01H3, BGYB01H4, BGYB01H5, BGYB02H1; and
2. 0.5 FCE in BGYB02H1;
3. 3.5 FCEs in essential concepts courses: BGYC12H1, BGYC13H1, BGYC15H1, BGYC17H1, BGYC22H1, BGYD21H1, and BGYD00T1 or BGYD00T2 or BGYD00T3 or BGYD00T4 or BGYD00T5 or BGYD22H1;
4. 1.0 FCE from among the following Cell and Molecular Biology courses: BGYC19H1, BGYC23H1, BGYC22H1, BGYC24H1, NROCS2H1, BGYC34H1, BGYC37H1, BGYD17H1, BGYD18H1 (or BGYD24H1), or
5. 2.0 FCEs in Chemistry: CHMA10H1, CHMA11H1, CHMB40H1, CHMB40H2;

6. 0.5 FCE in Physics: PHYA10H1 or (PHYA25H1);
7. 1.0 FCE in Mathematics: MATA30H1 & [MATA35H1 or MATA36H1];
8. 1.0 FCE from the courses listed by the Departments of Humanities, Management or Social Sciences.

Note: It is recommended that students take a statistics course such as STAB22H1.

All students would be well advised to take all core B-level courses before entering C-level Biology courses in order to avoid timetable conflicts that may cause delays in degree completion.

Suggested Course Sequence
Year 1: BGYA01H1, BGYB01H1, CHMA10H1, CHMA11H1, MATA30H1, [MATA35H1 or MATA36H1], PHYA10H1, 1 FCE of Item 8, or unspecified electives.
Year 2: BGYB01H1, BGYB02H1, BGYB03H1, BGYB03H2, BGYB03H3, 1 FCE of Item 8, or unspecified electives.
Year 3: BGYC12H1, BGYC13H1, BGYC15H1, BGYC22H1, BGYD21H1, plus 1.5 FCE of Item 4 courses or Item 5, or unspecified electives.
Year 4: BGYD21H1, 1 FCE of additional course work from Item 3, plus 3.5 FCE of Item 4 courses or Item 5, or unspecified electives.

SPECIALIST (CO-OPERATIVE) PROGRAM IN CELL AND MOLECULAR BIOLOGY

Supervisor: Until December 31, 2005: D. Riggs. Email: riggs@utac.utoronto.ca
From January 1, 2006: C. Hasenkamp. Email: hasenkamp@utac.utoronto.ca

The Program provides the student with a broad education in biochemistry, cell biology, genetics, microbiology and molecular biology through lecture, lecture/ laboratory, and intensive laboratory courses, and exposes the student to the theoretical and practical training. For information on admissions, fees, work terms and standing in the Program, please see the CO-Operative Programs section of this Calendar.

Program Requirements
This Program consists of 13.5 required FCEs (full credit equivalents). Please note 20 FCEs are required to complete an Honours Degree. Students in this Program MUST take CHMA10H1, CHMA11H1 during the first year, and CHMB40H1, CHMB40H2 during the second year to stream properly through the Program. The required credits are:

1. 4.0 FCEs consisting of the core curriculum components: BGYA01H1, BGYA02H1, BGYB01H1, BGYB01H2, BGYB01H3, BGYB01H4, BGYB02H1;
2. 0.5 FCE in BGYB02H1;
3. 3.5 FCEs in essential concepts courses: BGYC12H1, BGYC13H1, BGYC15H1, BGYC17H1, BGYC22H1, BGYD21H1 and [BGYD00T1 or BGYD00T2 or (BGYD00T3 or BGYD00T4 or BGYD00T5) or BGYD22H1;
4. 1.0 FCE from among the following Cell and Molecular Biology courses: BGYC19H1, BGYC23H1, BGYC22H1, BGYC24H1, NROCS2H1, BGYC34H1, BGYC37H1, BGYD37H1, (BGYC18H1), (BGYD10H1), (BGYD17H1), (BGYD18H1) or (BGYD24H1);
5. 2.0 FCEs in Chemistry: CHMA10H1, CHMA11H1, CHMB40H1, CHMB40H2;
6. 0.5 FCE in Physics: PHYA10H1 or (PHYA25H1);
7. 1.0 FCE in Mathematics: MATA30H1 & [MATA35H1 or MATA36H1];
8. 1.0 FCE from the courses listed by the Departments of Humanities, Management or Social Sciences.

Note: It is recommended that students take a statistics course such as STAB22H1.

All students would be well advised to take all core B-level courses before entering C-level Biology courses in order to avoid timetable conflicts that may cause delays in degree completion.
Suggested Course Sequence
Year 1: 
- BGYA03H, BGYA02H, CHMA10H, CHMA11H, MATA08H, MATA10H, MATA12H, MATA15H or MATA50H, PHYA10H, 1.0 FCE of Item 8, or unspecified electives.
- Year 2: BGYB10H, BGYB11H, BGYB12H, BGYB30H, BGYB31H, BGYB32H, BGYB51H, CHMB44H, CHMB45H, 0.5 FCE of Item 8 or unspecified electives.
- Year 3: BGYC12H, BGYC13H, BGYC15H, BGYC17H, BGYC23H, plus 1.5 FCE of Item 4 courses or Item 8, or unspecified electives.
- Year 4: BGYD12H, 1.0 FCE of additional course work from Item 3, plus 3.5 FCE of Item 4 courses or Item 8, or unspecified electives.

Work Terms
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 a report in the form of an oral presentation on each work term for evaluation and will also complete a standardized form, assessing the quality of their co-op work term.
To be eligible for their first work term, students must be in good standing in the program and have completed at least 10 FCEs, including BGYA01H, BGYA02H, CHMA10H, CHMA11H, MATA08H, MATA10H, MATA12H, MATA15H or MATA50H, PHYA10H or PHYA15H, BGYB10H, BGYB11H, BGYB12H, BGYB30H, BGYB31H, BGYB32H, CHMB44H, CHMB45H, and the non-credit Co-op Work Term Preparation course. To be eligible for their second work term, students must have completed at least 12.5 FCEs which must include the courses BGYC12H or BGYC13H, BGYC15H & BGYC17H, and have received a satisfactory evaluation for their performance and for their report on their first work term.

SPECIALIST PROGRAM IN CONSERVATION BIOLOGY
Supervisor: L. Marnie Email: marnie@utsa.utoronto.ca
This program aims to prepare students to become practitioners in conservation biology. This program is built primarily from the Life Sciences (Biological) and Earth & Environmental Science departments, with additional courses from Chemistry, Geography, and Statistics, for a total of 14.5 specified FCEs. Please note 20 FCEs are required to complete an Honours Degree. Below is a list of required and optional courses; following that is a recommended course sequence. Students would be well-advised to follow the recommended course sequence to ensure proper streaming through the program, and to prevent timetable conflicts that could delay graduation.

Program Requirements
Required courses: 14.5 full credit equivalents (FCEs)
1. 4.5 FCEs consisting of the core curriculum components: BGYA01H, BGYA02H, BGYB10H, BGYB11H, BGYB30H, BGYB31H, BGYB32H, BGYB51H, BGYB52H, BGYC12H, BGYC13H, BGYC15H, BGYC17H, plus 1.5 FCE of Item 4 courses or Item 8, or unspecified electives.
2. 2.5 FCEs from Practical Field Conservation or Basic Ecology courses: BGYC53H, BGYC54H, BGYC55H, BGYC56H, BGYC57H, BGYC58H, BGYD12H, BGYD13H, BGYD23H.
3. 0.5 FCE from Impact Assessment/Monitoring/Data Analysis: BGYC65H, EESC63H, EESC64H, EESD15H.
4. 0.5 FCE from Social Issues/Sustainability: GGRB20H, IDS80H, POLB90H, SOCC37H.
5. 0.5 FCE in Environmental Science courses: EESA06H, EESG04H, GGRA02H, GGRA04H, GGRA05H.
6. 1.0 FCE in STAB01H, STAB12H.
7. 1.0 FCE in STAB21H, STAB22H.
8. 1.0 FCE in STAB22H, STAB27H.
good standing, within the Co-op Program and have completed 8.5 FCEs (all of the A and B level required courses) as well as the Arts & Science Co-op Work Term Preparation course. To be eligible for their second work term, they must remain in good standing, within the Co-op Program and have completed at least 12 FCEs (including all of the required C-level courses), and have received a satisfactory evaluation for their performance from their first work term employer, and for their oral report on the first work term experience.

SPECIALIST PROGRAM IN HUMAN BIOLOGY

Supervisor: S. Reid Email: snreid@atn.utoronto.ca

Program Requirements
This Program consists of 15.5 required FCEs. Please note 20 FCEs are required to complete an Honours Degree. Students must take CHMA10H and CHMA11H during the first year. The specific Program requirements are:

1. 4.5 FCEs consisting of the core curriculum components in biology: BGYA01H, BGYA02H, BGYB01H, BGYB11H, BGYB31H, BGYB33H, BGYB50H, BGYB51H, BGYB52H, BGYC12H or BGYC13H, BGYC13H, BGYC21H, BGYC23H, BGYD33H
2. 5.5 FCEs in essential knowledge/competence: BGYB33H, [BGYB12H or BGYC13H], BGYC13H, BGYC21H, BGYC23H, BGYD33H
3. 1.0 FCE in PSY0A1H and PSY1A2H
4. 0.5 FCE in NROB06H
5. 1.0 FCE in CHMA10H, CHMA11H, CHMA14H, CHMA14H, CHMA12H
6. 1.0 FCE in PSY0A1H and PSY1A2H
7. 1.0 FCE in [MATA30H or [MATA31H] & [MATA35H or MATA36H]
8. 1.0 FCE from the additional list of Psychology and Neuroscience credits: NROC34H, PSY070H, PSY180H, PSY182H, PSY134I, PSY134I, PSY357H, PSY358H
9. 1.0 FCE in Health Studies: HLT1A0H, BGY30H, IDS604H, ANTIB54H, ANTIC61H, ANTIC62H, ANTIC23H, POC25H.

Note: It is recommended that students take a statistics course such as STAB22H.

All students would be well advised to take all core B-level courses before entering C-level Biology courses in order to avoid timetable conflicts that may cause delays in degree completion.

Suggested Course Sequence
Year 1: (5 FCEs of required courses) BGYA01H, BGYA02H, CHMA10H, CHMA11H, MATA30H, MATA35H or MATA36H, PSY1A0H, PSY1A2H, PSY1A3H, Year 2: (5 FCEs of required courses) CHMA41H, CHMA42H, BGYB11H, BGYB51H, BGYB52H, BGYB33H, BGYB31H, BGYB32H, BGYB51H, BGYC12H Year 3 & 4: BGYC21H or BGYC13H, BGYC13H, BGYC21H, BGYC33H, BGYD33H, NROB06H and items 8 and 9

SPECIALIST PROGRAM IN INTEGRATIVE BIOLOGY

Supervisor: T. Giri Email: tgpst@atn.utoronto.ca

Program Requirements
This Program consists of 13.5 required FCEs (full credit equivalents). Please note 20 FCEs are required to complete an Honours Degree. Students must take CHMA10H and CHMA11H during the first year. The specific Program requirements are:

1. 4.0 FCEs consisting of the core curriculum components: BGYA01H, BGYA02H, BGYB01H, BGYB11H, BGYB31H, BGYB33H, BGYB50H, BGYB51H
2. 0.5 FCE from among the three core labs: BGYB12H, BGYB12H, or BGYB52H
3. 0.5 FCE from the offerings in Structure and Diversity: BGYC17H, BGYC18H, BGYC21H, BGYC22H, BGYC23H, BGYC31H, BGYC33H, BGYC40H, (BGYC40H or BGYC40H), BGYC51H, BGYC52H, BGYC53H, BGYC53H, BGYD33H, BGYD33H, or [BGYD22H or BGYD22H]
4. 1.5 additional FCEs in Biology
5. 1.0 FCE in CHMA10H or CHMA11H
6. 0.5 FCE from MATA30H or STAB22H

All students would be well advised to take all core B-level courses before entering C-level Biology courses in order to avoid timetable conflicts that may cause delays in degree completion.

Suggested Course Sequence
Year 1: BGYA01H and BGYA02H, CHMA10H and CHMA11H, MATA30H and MATA31H, MATA35H, MATA36H
Year 2: BGYB11H and BGYB11H, BGYB31H, BGYB51H, BGYB52H or BGYB52H, BGYB32H or BGYB32H or BGYB52H
Year 3 & 4: 4.5 FCEs of the courses designated as structure/diversity offerings and 0.5 FCE of the courses designated as plant biology offerings and 4.5 FCE of other BGY courses and 1.0 FCE of courses listed by the Departments of Humanities, Management or Social Sciences. (Note: It is likely that this last requirement could be just as easily fulfilled in any year of your program).

MAJOR PROGRAM IN INTEGRATIVE BIOLOGY

Supervisor: T. Giri Email: tgpst@atn.utoronto.ca

Program Requirements
This Program consists of 8 required FCEs (full credit equivalents). Please note 20 FCEs are required to complete an Honours Degree. Students must take CHMA10H and CHMA11H during the first year.

1. 4.0 FCEs consisting of the core curriculum components: BGYA01H, BGYA02H, BGYB11H, BGYB31H, BGYB33H, BGYB50H, BGYB51H, BGYB52H, BGYB53H, BGYC12H, BGYC13H, BGYC21H, BGYC31H, BGYC33H, BGYD33H, NROB06H and items 8 and 9

Suggested Course Sequence
Year 1: BGYA01H and BGYA02H, CHMA10H and CHMA11H, MATA30H or STAB22H
Year 2: BGYB11H and BGYB11H, BGYB31H, BGYB51H, BGYB52H or BGYB52H, BGYB32H or BGYB32H or BGYB52H
Year 3 & 4: 0.5 FCE of the courses designated as structure/diversity offerings and 1.5 FCE of other BGY courses
MINOR PROGRAM IN BIOLOGY
Supervisor: T. Giri Email: tgiiri@ualberta.ca

Program Requirements
This Program must include BGYA101H & BGYA203H plus three full-credit equivalents in Biology. At least 1 FCE must be at the C- or D-level.

SPECIALIST (JUNIOR) PROGRAM IN INDUSTRIAL MICROBIOLOGY
(See the Industrial Microbiology section of this Calendar.)

SPECIALIST PROGRAM IN LIBERAL SCIENCES
(See the Physical Sciences Scarborough section of this Calendar.)

BOGYA101H1 Introductory Biology: Part I
A lecture and laboratory course providing an overview of biological processes at the cellular level.
Topics include cell structure, DNA replication, transcription, translation, cell division and inheritance, bioenergetics and enzymes, metabolism and transport processes, and aspects of plant cell structure and function; the diversity of life is emphasized throughout.
Exclusion: (GYA816), BIO150Y

BOGYA202H1 Introductory Biology: Part II
A lecture and laboratory course providing an overview of animal physiology, ecology and evolution; physiological adaptations to environmental problems; interaction of organisms with each other and the environment in an evolutionary context; adoption and specialization.
Exclusion: (GYA816), BIO150Y

BOGYA203H1 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 cellular interactions with the environment.
Exclusion: (GYB109Y), BIO250Y

- Prerequisite: (GYA801H & BGYA203H) or (GYA801Y & GYA811H) or (GYA801Y) or (GYA801Y)

BOGYB109Y1 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 eukaryotic cells. First half topics include: Structure and function of major animal and plant organelles, the role of the cytoskeleton, the role on the plasma membrane and extracellular 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 BGYB109Y and BGYB110H.
Exclusion: GYB109H, GYB110H, BIO150Y

- Prerequisite: (GYA801H & BGYA203H) or (GYA801Y) & (GYA811H) or (GYA801Y)

BOGYB108H1 Mammalian Physiology
A core animal physiology course covering the regulatory mechanisms which control and co-ordinate the functioning of the body such as nerve action potentials, synaptic transmission, muscle contraction, neuromuscular systems, sensory receptors, and hormonal action.
Exclusion: (GYB118Y), (GYB308H)

- Prerequisite: (GYA801H & BGYA203H) or (GYA801Y)

BOGYB110H1 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.
Exclusion: (GYB109Y), BIO250Y

- Prerequisite: (GYA801H & BGYA203H) or (GYA801Y)

BOGYB109H1 Animal Physiology Laboratory
A laboratory course examining the mechanisms that control and co-ordinate functioning of the body. Laboratory exercises examine aspects of action potential, synaptic transmission, contraction of striated muscle, heart rhythm, mechanoreception, digestion, excretion, and the effect of exercise on metabolism. Abstracts, lab reports, tests and a formal examination are required.
Exclusion: ZOG252Y

- Corerequisite: GYB109H or (GYA801Y)

BOGYB203H1 Human Biology: Development and Anatomy
This course deals with the functional morphology of the human organism. The subject matter extends from early embryo-growth through puberty to late adult life.
Priority will be given to students in the Human Biology and Paramedicine programs. Additional students will be admitted only if space permits.
Exclusion: ANA309Y, ANA301H

- Prerequisite: (GYA801H & BGYA203H) or (GYA801Y)

BOGYB504H1 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.
Exclusion: (GYB109Y), (GYB130Y)

- Prerequisite: (GYA801H & BGYA203H) or (GYA801Y) or (EEA804H)

BOGYB156H1 Evolutionary Biology
Students learn about development of evolutionary theory, maintenance of genetic variation, origin of species, adaptation, and current research topics in evolution.
Exclusion: (GYB159Y), (BIO309Y)

- Prerequisite: (GYA801H & BGYA203H) or (GYA801Y) or (EEA804H)
BGYB153H Genetics
Topics for this lecture and laboratory course include: a brief review of transcription, translation, and molecular techniques; inheritance and its chromosomal basis; gene interactions; quantitative genetics; sources and types of mutations, and the relationship of mutation to genetic disease and evolution; and genomics.
Exclusion: BGY260H
Prerequisite: [BGYB10H & BGYB11H] or (BGYB10Y) and (BGYB11Y). Effective Fall 2005/06, [MATA33H or MATA33H or MATA37H or STAB22H] will be added to the prerequisites.

BGYC176H Microbiology: The Bacterial Cell
This course describes bacterial cells and viruses and their roles in infectious disease, in the environment and as paradigms for cell and molecular biology. The laboratories illustrate principles and provide training in basic microbiological techniques essential to microbiology and to any field where recombinant DNA technology is used.
Exclusion: M3Y37H, M3P20Y
Prerequisites: [BGYB10H & BGYB11H] or (BGYB10Y) and [CHMB41H & CHMB42H] or (CHMB44Y)

BGYC191H Animal Developmental Biology
Following a discussion of cellular and molecular events in early embryonic life, the development of several model systems will be analyzed such as erythropoiesis, lens development in the eye, spermatogenesis and myogenesis. Particular reference will be given to the concept that regulation of gene expression is fundamental to development.
Prerequisites: [BGYB10H & BGYB11H] or (BGYB10Y)

BGYC171H Advanced Plant Physiology
An examination of plant processes from physiological, biochemical and molecular biological perspectives. Topics include gene expression and signal transduction, transgenic plants, hormones, enzyme regulation, nutrient assimilation, primary and secondary metabolism, and responses to light and environmental stress. Laboratories examine processes such as water and nutrient relations, hormone action, photosynthesis, and symbiotic nitrogen fixation.
Limited enrollment: 24
Exclusions: BOT21Y, BOT42H
Prerequisites: [BGYB10H & BGYB11H] or (BGYB10Y) and [BGYB31H or (BGYB30Y)]

BGYC134H Mammalian Physiology II: Lecture
The lecture component of BGYC 134H is identical to that described above for BGYC 133H. Students will complete a series of computer-simulated laboratory exercises (on their own time) instead of practical lab sessions.

BGYC325H Fundations of Epidemiology
An introduction to the theory, practice, methodology and analytic techniques employed in the study of the distribution and determinants of disease in human populations. This course will examine aspects of epidemiology such as: the observational techniques employed in studying diseases, the meaning of "population" in epidemiology and methods of sampling, the types of controls employed, the analysis of data, the investigation of
BGYC5263 Ecology Field Course
Coverage of basic principles and selected techniques of animal and plant ecology. Students will study a variety of techniques related to population ecology, community ecology, behavioral ecology, and physiological ecology. Both aquatic and terrestrial environments will be the "field" laboratories. Occasional weekend field trips are mandatory (e.g., 20km hill). Offered in alternate years. Limited enrolment: 15. Exclusions: BIOC5510H, BIOC5501H. Corequisites: [BGYSB50H, BGYB51H] or [BGYSB50Y, BGYB51Y].

BGYC5303 Marine Biology
A field course on selected topics of marine biology with particular emphasis on tropical waters. This course will be held during mid-February at a field station in the Caribbean and will have a considerable practical component. Prior to fieldwork, there will be a series of lectures at UTSC. On site, students will study three main habitat types: rocky shore, open ocean, and coral reef. In addition, students will work on individual field projects. Limited enrolment: 15. * As this course is ALWAYS oversubscribed, interested students must contact the instructor AT LEAST 9 MONTHS in advance of the start of the course for details and must, at that time, be prepared to place a deposit towards the cost of airfare and accommodation. Places are allocated on a first-come, first-served basis. Exclusion: BIOC5510H. Prerequisites: [BGYSB50H & BGYB51H] or [BGYSB50Y & EESC340H or permission of instructor].

BGYC5403 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 cooperation, and the evolution of animal societies. Limited enrolment: 15. Exclusion: BIOC5510H. Prerequisites: [BGYSB50H & BGYB51H] or [BGYSB50Y & BGYB51Y].

BGYC6033 Restoration Ecology
A lecture and tutorial course that introduces students to the principles and practice of restoring disturbed or damaged ecosystems. Knowledge of the science of complex ecosystem restoration and recovery will be developed. Offered in alternate years. Limited enrolment: 15. Exclusion: BIOC5510H. Prerequisites: [BGYSB50H & BGYB51H] or [BGYSB50Y & BGYB51Y].

BGYC5313 Marine 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 cycling, predation, competition, trophic dynamics, stability and disturbance, and effects of physical change. Offered in alternate years. Limited enrolment: 15. Exclusion: BIOC5510H. Prerequisites: [BGYSB50H & BGYB51H] or [BGYSB50Y].

BGYC6233 Role of Zoos in Conservation
A lecture course that examines the role of zoos in conservation, with particular emphasis on the role of zoos in conservation biology. Topics include: the role of zoos in conservation biology, the role of zoos in conservation education, and the role of zoos in conservation policy. Offered in alternate years. Limited enrolment: 15. Exclusion: BIOC5510H. Prerequisites: [BGYSB50H & BGYB51H] or [BGYSB50Y].

BGYC6303 Conservation Biology
Survey of the science of biological conservation, focusing on the role of zoos in conservation biology. Topics include: the role of zoos in conservation biology, the role of zoos in conservation education, and the role of zoos in conservation policy. Offered in alternate years. Limited enrolment: 15. Exclusion: BIOC5510H. Prerequisites: [BGYSB50H & BGYB51H] or [BGYSB50Y & BGYB51Y].
**Co-ordinator of First Year Studies in Chemistry: A. Verster (416-287-7224) Email: verster@stc.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 or Life Sciences. The Chemistry Handbook, which is available on the Web, outlines the teaching and research activities of the Chemistry faculty and provides a wide range of informal advice on undergraduate activities.

The basic courses in chemistry are CHMA10H and CHMA11H which must be taken by those who wish to take further chemistry courses or who require chemistry for another science. Completion of CHMA10H and CHMA11H permits students to take any of the B-level courses in Chemistry. These are divided according to the following sub-disciplines: Inorganic Chemistry, Physical Chemistry, Environmental Chemistry and Organic Chemistry. Thereafter, one can proceed to advanced-level courses at the C- and D-level.

Students who wish to enroll 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 standing or permission of the instructor is obtained.

To Enter St. George Series 430 Complete UTSC Courses

CHMA10H
CHMA11H
CHMB18H
CHMB31H &
CHMC17Y

To Enter St. George Series 440 (except 447) Complete UTSC Courses

CHMA10H
CHMA11H
CHMB18H
CHMB28H
CHMC41H &
CHMC42H

NOTE: Timetabling constraints usually preclude UTSC C-level and St. George 400-level courses being taken in the same year.

While courses in Physics do not appear among the prerequisites or co-requisites of most courses in Chemistry, students are urged to take PHYA10H & PHYA21H early in their Programs. Thus, the suggested first-year Program in Chemistry includes CHMA10H, CHMA11H, MAT130H5 (MAT131H5), MAT136H5 (MAT137H5, PHYA10H & PHYA21H).

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 Environmental Science (Environmental Chemistry Seminar) and the Major Programs in Biochemistry and Chemistry are eligible for inclusion in the Co-operative Program in Physical Sciences and the Early Teacher Project in Physical Sciences. Please refer to the Physical Sciences Scarborough and the Co-operative Programs sections of this Calendar for further information.

Please refer to the preamble in the Physical Sciences Scarborough section for a list of the Programs offered.

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**SPECIALIST PROGRAM IN BIOLOGICAL CHEMISTRY**

*Supervisor: Until June 30, 2007: K.A. Henderson (416-287-7215) Email: henderson@stc.utoronto.ca*

From July 1, 2005: TBA

This program is intended for students who wish 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 FCEs (full credit equivalents):

**First Year:**

BGYA40H Introductory Biology: Part I
BGA101H Introductory Biology: Part II
CHMA10H Introductory Chemistry I: Structure and Bonding
CHMA11H Introductory Chemistry II: Reactions and Mechanisms
MAT136H Calculus I [MATAS31H Calculus II for Biological Sciences or MATAS6H Calculus II for Physical Sciences or MATAS7H Calculus II for Mathematical Sciences]
PHYA10H Introduction to Classical Physics
PHYA21H Introduction to Modern Physics

*Students should note that MAT4B1H is a prerequisite for CHMC21H and that MATAS6H/MATAS7H is strongly recommended over MATAS5H in order that future course selection is not compromised.*

**Second Year:**

BGYB10H Cell Biology
BGBV11H Molecular Aspects of Cellular and Genetic Processes
BGYB12H Laboratory for Cell and Molecular Biology
CHMB31H Introduction to Inorganic Chemistry
CHMB41H Organic Chemistry I
CHMB42H Organic Chemistry II

**Second or Third Year:**

CHMB61H Techniques in Analytical Chemistry
CHMB20H Chemical Thermodynamics and Elementary Kinetics
CHMB21H Chemical Structure and Spectroscopy

**Third Year:**

BGYC12H Biochemistry I: Proteins and Enzymes
BGCY13H Biochemistry II: Bioenergetics and Metabolism
BGCY23H Practical Approaches to Biochemistry
CHMC41H Bio-Organo Chemistry

**Third or Fourth Year:**

CHMC31H Principles of Analytical Instrumentation
CHMC31Y Intermediate Inorganic Chemistry [CHMC41H Organic Reaction Mechanisms or CHMC42H Organic Synthesis]
Fourth Year:

PSCD02H Current Questions in Mathematics and Science
At least 0.5 FCE from the following:
BGYD01Y Supervised Study in Biology
BGYD02Y Directed Research in Biology
CHMD99Y Directed Research
CHMD91H Directed Research
PSCC10H Physical Sciences Project
And, in appropriate years 1.0 FCE (1.5 FCE if CHMD91H or PSCC10H is taken) from the following list:

MATB41H Techniques of Calculus of Several Variables I
CMHB58H Environmental Chemistry
PSCB37H Introduction to Scientific Computing
Or any other C- or D-level Chemistry or PSC courses, and C- or D-level BGY courses for which [BGYB10H & BGYB11H] is a prerequisite.

SPECIALIST PROGRAM IN CHEMISTRY
Email: henderson@tute.utoronto.ca
From July 1, 2005: THA

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 FCEs (full credit equivalents) as follows:

First Year:
CHMA10H Introductory Chemistry I: Structure and Bonding
CHMA11H Introductory Chemistry II: Reactions and Mechanisms
MATA30H Calculus I

[MATA36H Calculus II for Physical Sciences
or
MATA37H Calculus II for Mathematical Sciences]

PHYA10H Introduction to Classical Physics
PHYA21H Introduction to Modern Physics

and

1.0 FCE chosen from:
ASTA10H Introduction to Astronomy and Astrophysics I: The Sun and Planets
ASTA20H Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
BGYA10H Introductory Biology: Part I
BGYA20H Introductory Biology: Part II
EESA10H Environmental Hazards
EESA66H Introduction to Planet Earth
MATA23H Linear Algebra I
PSCB37H Introduction to Scientific Computing

Second Year:

CMHB10H Techniques in Analytical Chemistry
CMHB20H Chemical Thermodynamics and Elementary Kinetics
CMHB31H Chemical Structure and Spectroscopy
CMHB31H Introduction to Inorganic Chemistry
CMHB41H Organic Chemistry I
CMHB42H Organic Chemistry II
MATA41H Techniques of Calculus of Several Variables I

Third Year:

CHMC21HH Principles of Analytical Instrumentation
CHMC26HH Analytical Instrumentation
CHMC21II Topics in Biophysical Chemistry
CHMC31Y Intermediate Inorganic Chemistry
[CHMC41IH Organic Reaction Mechanisms or
CHMC42IH Organic Synthesis]

Fourth Year:

PSCD02H Current Questions in Mathematics and Science

2.0 FCEs chosen from:

CHMC47EH Bio-Organic Chemistry
[CHMC42IH Organic Synthesis or
CHMC41IH Organic Reaction Mechanisms]

Any D-level or 400-level CHM course.
Other D-level courses upon approval of Program Supervisor.

1.0 FCE chosen from:

CMHB99Y Directed Research
CMHB91H Directed Research
PSCC10H Physical Sciences Project

MAJOR PROGRAM IN CHEMISTRY
Supervisor: A. Verne (416-287-7224), Email: verne@tute.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 FCEs (full credit equivalents):

First Year:

CHMA10H Introductory Chemistry I: Structure and Bonding
CHMA11H Introductory Chemistry II: Reactions and Mechanisms
MATA30H Calculus I

[MATA36H Calculus II for Biological Sciences
or
MATA36H Calculus II for Physical Sciences
or
MATA37H Calculus II for Mathematical Sciences]

PHYA10H Introduction to Classical Physics
PHYA21H Introduction to Modern Physics

Second and Later Years:
4.5 FCE in Chemistry, including at least one C-level half credit course with a laboratory. **

PHY110Y is not an acceptable substitute for [PHYA10H & PHYA21H]

** Students should note that if they are going to select CMHB20H/CMHB21H, then

MATA30H, MATA36H/MATA37H, PHYA10H & PHYA21H are prerequisites; if CHMC21H

is chosen, CMHB20H, CMHB21H and MATA41H are prerequisites.
MAJOR PROGRAM IN BIOCHEMISTRY
Supervisor: I. Potter (416-287-7222) Email: potter@stec.sherbrooke.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 9.0 FCIs (full credit equivalents):
First Year:
BOYA01H Introductory Biology: Part I
BOYA02H Introductory Biology: Part II
CHMA10H Introductory Chemistry I: Structure and Bonding
CHMA11H Introductory Chemistry II: Reactions and Mechanisms
Second and Later Years:
BOYB10H Cell Biology
BOYB11H Molecular Aspect of Cellular and Genetic Processes
BOYB12H Cell & Molecular Biology Laboratory
BOYC12H Biochemistry I: Proteins & Enzymes
BOYC13H Biochemistry II: Bioenergetics & Metabolism
BOYC13H Practical Approaches to Biochemistry
CHMB16H Techniques in Analytical Chemistry
CHMB41H Organic Chemistry I
CHMB42H Organic Chemistry II
CHMC41H Organic Reaction Mechanisms
or
CHMC42H Organic Synthesis
CHMC43H Bio-Organic Chemistry
And 6.5 FCE from the following:
CHMB200P Chemical Thermodynamics and Elementary Kinetics
CHMB218P Chemical Structure and Spectroscopy
CHMB31H Introduction to Inorganic Chemistry
CHMB55H Environmental Chemistry
CHMC11H Principles of Analytical Instrumentation
CHMC16H Analytical Instrumentation
CHMC21H Topics in Biophysical Chemistry
CHMC31Y Intermediate Inorganic Chemistry
[CHMC42H Organic Synthesis
or
CHMC41H Organic Reaction Mechanisms
[CHMB201H/CHMB211H are chosen, MATA39H, MATA35H/MATA36H/MATA37H, PHYA10H & PHYA21H are required.
SPECIALIST PROGRAM IN ENVIRONMENTAL CHEMISTRY
(See the Environmental Science section of this Calendar.)
SPECIALIST PROGRAM IN LIBERAL SCIENCES
(See the Physical Sciences Scarborough section of this Calendar.)

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. Exclusion: CHMI132H, CHMI313H, CHMI313Y, CHMI313Y, CHMI33H, CHMI33H, CHMI340Y, CHMI350Y, CHMI351Y, CHMA01H, CHMA02H
Prerequisite: Grade 12 or OAC Chemistry & [Grade 12 or OAC Calculus]
Corequisite: None, but [MATA39H or (MATA37H)] & [MATA35H or (MATA36H or MATA37H)] are strongly recommended. CHMA11H & [MATA35H or (MATA37H)] are required for some higher level and other Physical Sciences courses.

CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
This course will introduce the study of chemical transformations of matter, from a macroscopic and microscopic perspective. Reactions and equilibria in chemical systems are explored through their thermodynamic properties and chemical kinetics. Acid/base and redox equilibria will be covered and organic functional groups and some fundamental reactions of organic molecules will be introduced. Exclusion: CHMI132H, CHMI313H, CHMI323Y, CHMI323Y, CHMI323Y, CHMI33H, CHMI33H, CHMI340Y, CHMI350Y, CHMI351Y, CHMA01H, CHMA02H
Prerequisite: CHMA10H3
Corequisite: None, but [MATA39H or (MATA37H)] & [MATA35H or (MATA36H or MATA37H)] are strongly recommended. MATA39H or (MATA37H)] & [MATA35H or (MATA36H or MATA37H)] are required for some higher level and other Physical Sciences courses.

CHMB10H3 Techniques in Analytical Chemistry
An introduction to the principles and methods of classical analysis and the provision of practical experience in analytical laboratory techniques. The course deals primarily with quantitative chemical analysis. Classical methods of volumetric analysis, sampling techniques, statistical handling of data are studied, as well as a brief introduction to spectro-chemical methods. Exclusion: CHMI11H, CHMI12H
Prerequisite: CHMA10H & CHMA11H
Recommended: CHMB31H

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. Exclusion: CHMB22Y, CHMB22Y, CHMB23H, CHMB22Y, CHMB22Y
Prerequisite: CHMA10H & CHMA11H & [MATA39H or (MATA37H)] & [MATA35H or (MATA36H or MATA37H)]
Note: PHYA21H and MATA64H are prerequisites for the C-level physical chemistry courses.

CHMB21H3 Chemical Structure and Spectroscopy
Atomic structure and spectra; term symbols and their meaning, valence bond theory; LCAO-MO molecular spectroscopies. Exclusion: CHMB22Y, CHMB22Y, CHMB23H, CHMB22Y, CHMB29H
Prerequisite: CHMB21H
Note: this course implies all the prerequisites for that course as well.

CHMB21H Introductory 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 energies; selected chemistry of non-transition elements. Examples will be taken from environmentally and biologically important inorganic compounds.
Exclusion: CHMI31V
Prerequisite: CHMA10H & CHMA11H
CHMC412H Organic Chemistry I
Chemical bonding, and an introduction to aliphatic and aromatic compounds. Conformational analysis and stereochemistry. Free radical reactions of alkanes. Chemistry of alkenes, dienes, and alkynes. Substitution and elimination reactions.
Prerequisite: CHM3A1H or CHM3A1Y

CHMC2H Organic Chemistry II
Spectroscopy of organic compounds. Aromatic substitution. Chemistry of carbonyl compounds. An introduction to the chemistry of biologically important compounds, including heterocycles, carbohydrates, amino acids, and natural products.
Exclusion: (CHM2B4H), CHM2B7H, CHM2B8H, CHM2B7H, CHM2B8H, CHM2B6H
Prerequisite: CHM2B1H

CHMC5H Organic Chemistry III
Principles of analytical instrumentation. A laboratory course to complement CHMC11H, Principles of Analytical Instrumentation. This course will provide 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 environmental samples.
Exclusion: CHM3A4Y
Prerequisite: CHM3C1H

CHMC2B1H Intermediate Physical Chemistry
Basic statistical mechanics and applications to thermochemistry and kinetics; intermolecular interactions, concepts in reaction dynamics.
Prerequisite: CHM2B1H or CHM2B1H & MATB1H or PHYA1H

CHMC2B1H Topics in Biophysical Chemistry
Advanced topics in Physical Chemistry with emphasis on biochemical systems. Spectroscopic methods for (bio) molecular structure determination, including IR, NMR, UV/VIS; colloid chemistry; polymers and bio-polymers, bonding structure and statistical mechanics; physical chemistry of membranes, active transport and diffusion, oscillatory (bio)chemical reactions.
Prerequisite: CHM2B1H & CHM2B1H & MATB41H

CHMC2B1H Intermediate Inorganic Chemistry
A detailed discussion (than in CHM2B1H) 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 synthesis techniques, with characterization of products by both classical and instrumental methods.
Prerequisite: CHM2B1H

Recommended: CHM2B8H & CHM2B1H

CHMC2B1H Analytical Instrumentation
A laboratory course to complement CHMC11H, Principles of Analytical Instrumentation.

CHMC3H Organic Reaction Mechanisms
Theory and mechanisms of organic reactions: principles of structure, introduction to aromaticity, spectroscopy and polymers. Theories of bonding. The laboratory experiments are designed to complement the topics covered in lectures. Offered in alternate years with CHMC4C2H.
Exclusion: (CHMC4C2Y), CHM3C4H
Prerequisite: CHM3C1H & CHM3B2H

CHMC2B1H Organic Synthesis
Principles of synthesis organic and functional group transformations: complex stereo-chemistry, spectroscopy and structure elucidation. Offered in alternate years in rotation with CHMC4C1H.
Exclusion: (CHMC4C1Y), CHM3C4H
Prerequisite: CHM3B1H & CHM3C2H

CHMC4C1H Bi-Organic Chemistry
The chemistry of heterocycles, nucleic acids, serpines, steroids and other natural products; amino acids, proteins and carbohydrates; introduction to enzyme structure and catalysis.
Exclusion: CHM3C4H
Prerequisite: CHM3B1H & CHM3B2H

CHM3B2H Topics in Physical Chemistry
Advanced topics in physical chemistry will be covered at a modern research level. The exact topic will be announced in the Spring term prior to the course's being offered. Prerequisite: Permission of the instructor. Normally only for individuals who have completed fifteen full-credit equivalents including at least two C-Level Chemistry courses, and who are pursuing one of the Chemistry Programs.

CHMC5H3 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 Spring term prior to the course's being offered. Prerequisite: Permission of the instructor. Normally recommended for individuals who have completed fifteen full-credit equivalents including at least two C-Level Chemistry courses, and who are pursuing one of the Chemistry Programs.

CHMC5H3 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 Spring term prior to the course's being offered. Prerequisite: Permission of the instructor. Normally only for individuals who have completed fifteen full-credit equivalents including at least two C-Level Chemistry courses, and who are pursuing one of the Chemistry Programs.
City Studies

Faculty List

N. Eyles, B.Sc. (Leicester), M.Sc. (Memorial University NFLD), Ph.D. (East Anglia), D.Sc. (Leicester), P.Geo., Professor
I. Hamid, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Professor
J.R. Miron, B.A. (Queen's), M.A. (Penn.), M.Sc., Ph.D. (Toronto), Professor
E. C. Ralph, B.A., M. Phil. (London), Ph.D. (Toronto), Professor
M. F. Runce, B.A., Ph.D. (Sheffield), Associate Professor
L. Sawchuk, B.A., M.A. (McMaster), Ph.D. (Toronto), Associate Professor

Supervisor of Studies: John Miron (416-287-7311) Email: miron@citieslab.utm.utoronto.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, 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 field of professional interest.

City Studies (B.A.)

- 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 pursued and to be taken during the current session.

Generally, only students who have completed 15 credits in total including at least 6.0 credits of City courses containing a lab component (i.e. CHMC315H, CHMC318H, CHMC415H, CHMC418H, CHMC425H, CHMC429H) will be accepted into the course. Research supervision should normally be members of the City group at UTSC. Potential supervisors outside these groups must identify a co-supervisor who is a member of the City group at UTSC. 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 UTSC will be graded with the UTSC cohort.

MAJOR PROGRAM IN CITY STUDIES

Program Requirements

The Major Program in City Studies requires a total of 7 full credits, with requirements in the areas of social science theory, methods, applications, and an advanced seminar.

1. Introduction to Social Science Thought (at least 2 full credits from among the following): ANT350H1 Introduction to Anthropology: Becoming Human ANT450H1 Introduction to Anthropology: Culture, Society and Language ILT490H1 Plagues and Peoples [PGL451H1 Critical Issues of Canadian Democracy or POL100H1 Canada's Political Institutions Any other A-level course in Political Science Soca410H1 Introduction to Sociology I Soca305H1 Introduction to Sociology II GGRA201H1 The Geography of Global Processes GGRA301H1 Cities and Environments [ECMA101H Introduction to Microeconomics or ECMA201H Introduction to Microeconomics: A Mathematical Approach [ECMA501H Introduction to Macroeconomics or ECEA501H Introduction to Macroeconomics: A Mathematical Approach]

2. Fundamentals of City Studies (at least 2 full credits from among the following): ANTR505H1 Health and the Urban Environment [EEAS105H1 Environmental Hazards or EESG001H1 Introduction to Planet Earth GGRB003H1 Urban Geography GGRB004H1 Planning in Canada GGRB100H1 Real Estate and the City GGRB113H1 Social Geography GGRB207H1 Location and Spatial Development Soca484H1 Urban Sociology: Macro-Analysis Soca455H1 Urban Sociology: Micro-Analysis WSTB212H1 Women: Issues of Violence and Safety

3. Methods (at least 1 full credit from among the following):
   - Soca484H1 Quantitative Methods in Social Research
   - Soca494H1 Qualitative Methods in Social Research
   - [SOCB006H1 Social Statistics or STAB225H Statistics I [GGRA303H GIS and Empirical Reasoning or EESG081H GIS for the Beginning Student or EESC300H Geographic Information Systems and Remote Sensing

4. Applications (at least 1.5 full credits from among the following):
   - ANTC300H1 Foundation and Theoretical Issues in Anthropological Demography
   - ANTC301H1 Methods and Analysis in Anthropological Demography
   - EESC212H1 Urban Environmental Problems of the Greater Toronto Area
   - ENGB100H1 Studies in the Victorian Period
   - GGRB304H1 Urban Residential Geography
   - GGRG311H Urban Political Geography
   - GGRG318H Urban Transportation Policy Analysis
   - GGRG331H Greater Toronto Area
   - [HISC381H Major Themes in American Urban History, 1850 to Present]
City Studies

(B.A.) Twentieth-Century American Urban Culture
POLC33H1 Canadian Environmental Politics
POLC66H1 Public Policy Making
POLC87H1 Public Policy in Canada
Socz33H1 Collective Behaviour
Socz34H1 Social Movements
Socz26H1 Sociology of Urban Growth
WSTC14H1 Women, Community, and Policy Change
WSTC20H1 Women and Environments
5. Core course (0.5 full credits)
CITET01H City Issues and Strategies

Students are reminded that many of the courses above have prerequisites and that it is the responsibility of the student to ensure that they satisfy these requirements.

MAJOR (CO-OPERATIVE) PROGRAM IN CITY STUDIES

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 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 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-months duration. To be eligible for the first work term, students must have completed at least 10 full credits, including 5 full credits as a UTSC student. These must include at least one full credit drawn from each of areas I (Introduction to Social Science Thought), II (Fundamentals of City Studies), and III (Methods). They must also have completed the Arts & Science Co-op Work Term Preparation course. Students are advised that being available for work terms during fall and winter may increase the variety of work available, and this in turn requires students to take courses during at least one summer session.

CITET01H City Issues and Strategies

An independent studies course open only to students in the Major Program or the Major (Co-operative) Program in City Studies. The instructor chooses a case study, and within this, students choose their own topic and method of investigation.

Team work is encouraged, but students submit individual reports. Pre-requisite: Students will have already completed all program requirements. (1) Introduction to Social Thought, (2) Fundamentals of City Studies, and (3) Methods.

Classical Studies (B.A.)

Faculty List
J. Warden, M.A. (Carleton), Professor Emeritus
J. H. Corbett, M.A., Ph.D. (Toronto), Associate Professor
I. R. McDonald, B.A. (Alberta), Ph.D. (N. Carolina), Associate Professor

Discipline Representative: J. H. Corbett (416-287-7164)

Classical Studies introduces the student to the Greek and Roman world, its literature, history, religion and government. Greco-Roman civilization was the wellspring of western culture and the direct antecedent of much of what is central and familiar in contemporary Canadian society. Its achievements in many fields still set the standards by which modern endeavours are judged. In most courses the original ancient Greek and Latin texts come alive in English translation, and the computer-based Perseus project in Blaydon Library presents sophisticated multimedia opportunities for exploring the ancient Greek and Roman world.

MINOR PROGRAM IN CLASSICAL STUDIES

Supervisor of Studies: J. H. Corbett (416-287-7164) Email: corbett@utsc.utoronto.ca

The Minor Program in Classical Studies has been withdrawn. Every effort will be made to allow students currently registered in the program to complete it.

Program Requirements

Requirements for students enrolled in the Minor Program in Classical Studies in the 2004 Winter session and earlier remain as described below. Students who wish advice on the best way to complete the program are encouraged to meet with the program supervisor.

For the Minor Program in Classical Studies, students must complete four full-credit equivalents to be selected as follows:

1. CLA202H Classical Mythology I: Myths of the Gods
2. CLA203H Classical Mythology II: Myths of the Heroes
3. CLA204H The Mediterranean World I: Rome
4. CLA205H The Mediterranean World I: Greece
5. Two half credits (one full credit equivalent) from:
   CLA210H Greek & Latin for Scientists
   CLA220H The Classical World in Film
   CLA242H Army and Empire in the Roman World
   VPHB41H The Human Figure in Greek Art (8th - 4th Centuries B.C.)
   VPHB52H Ancient Art and Architecture (ca. 900 B.C. to 300 A.D.)

4. CLAC01H Selected Topics in Classical Literature and
   One of:
   CLAC02H Selected Topics in Classical Civilization
   CLAC32H Classics and the Computer
   CLAC41H Slavery in the Roman Economy
   VPHIC461H Topics in Art of the Ancient World
CLA211H1 Classical Mythology 1: Myths of the Gods
An introduction to the beliefs and story patterns surrounding the deities of the ancient Greek and Roman world. How divine myth reflects such universal concerns as creation, transformation and death. Some consideration of ancient and modern theories of myth and representations of divine mythology in ancient and modern art.
Exclusion: (HUMA11Y1), (CLA2A0Y2), (CLA2B4Y1), (CLA2E5Y1)

CLA2A3H3 Classical Mythology II: Myths of the Heroes
The stories of the heroes of the ancient Greek and Roman world. How heroic myth reveals the thinking of Greco-Roman civilization on the world and what it means to be human, focusing on such concerns as power, sex, gender and identity and on such values as love, hate, power, revenge and honour.
Exclusion: (HUMA11Y1), (CLA2A0Y2), (CLA2B4Y1), (CLA2E5Y1)
Recommended preparation: (CLA2A0Y2)

CLA2A0H2 The Mediterranean World I: Greece
A survey of the history of the near east and Greece in the classical period (800-200 B.C.). Emphasis on the Mediterranean region in relation to Africa, the Middle East and Europe, its distinctive environment and the natural processes which shaped the societies which flourished there.
Exclusion: (CLA2B0Y5), (CLA2B3Y1)

CLA2A0H3 The Mediterranean World II: Roman
A survey of the history of the ancient Roman world, focusing primarily on the Roman Empire at its height (from Caesar to Constantine). Extensive use of literary sources (all read in English translation) and archaeological evidence.
Exclusion: (CLA2B0Y5), (CLA2B3Y1)
Recommended preparation: (CLA2B0Y5)

CLA2A0H3 Greek and Latin for Scientists
The role of classical Greek and Latin in the formulation of technical scientific terms. Primary focus is on the biological

and medical sciences. Particular emphasis on word analysis and structure, the principles of scientific word formation, and the characteristics, rules, and codes of scientific nomenclature.
Exclusion: (CLA2A1H1), (CLA2A3H1), (CLA2A3H2)

CLA2B0H3 The Classical World in Film
The representation of the classical world and historical events in film. How the Greek and Roman world is reconstructed by filmmakers, their use of spectacle, costume and furnishings, and the influence of archaeology on their portrayals. Films will be studied critically for historical accuracy and faithfulness to classical sources.
Exclusion: (CLA2A3H1)
Recommended preparation: (CLA2A0Y2) or (CLA2A0H2) or (CLA2A3H1)

CLA2A2H3 Army and Empire in the Roman World
An introduction to the military organization of the Roman Empire. The development of the Roman army as a fundamental social institution within the Roman state and an agent of conquest and Romanization. Emphasis on the army’s role in conquest and urbanization, communications, logistics and engineering in three major phases of Roman military history.
Exclusion: (ERID98Y2)
Prerequisite: (CLA2A0Y2) or (CLA2A0H2) or (CLA2A3H1) or (CLA2B0Y5) or (CLA2A0H1) or (HSA0A1Y1) or (HSA0A3H1) or (HSA0A3Y1)

CLA2A1H3 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.
Exclusion: (CLA2A0H1), (CLA2A0Y2)
Prerequisite: One full credit in Classics or in English or another literature

Cognitive Science (B.Sc.)
Faculty List
A. Kuhl, A.B., M.A., Ph.D. (UCLA), Professor Emeritus
M.C. Smith, B.A. (Toronto), Ph.D. (MIT), Professor Emerita
R. L. Binnick, B.A. (CUNY), M.A., Ph.D. (Chicago), Professor
J.M. Kennedy, B.Sc., M.Sc. (Belfast), Ph.D. (Cornell), Professor
M.A. Schmeckler, B.A. (UNY-Binghampton), Ph.D. (Cornell), Professor
W.E. Seager, M.A. (Alberta), Ph.D. (Toronto), Professor
S. Sedivy, B.A. (Toronto), Ph.D. (Pittsburgh), Associate Professor
R. Smyth, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor
G.S. Cree, B.A., M.A., Ph.D. (Western), Associate Professor

Supervisor of Studies: W. E. Seager, (Room H232, 416-287-7151)
Email: seager@uts.cc.utoronto.ca

Cognitive Science is the study of knowledge - how human beings, other animals, and even machines acquire knowledge, organize and store that knowledge, and use that particular knowledge to solve problems. Cognitive scientists are particularly interested in the way we use symbolic systems, such as natural or computer languages, drawing, or mathematical notation, to organize our knowledge of the world. Cognitive Science considers questions like: Are we born with some knowledge already in place? How does our experience of the world allow us to develop knowledge? Is knowledge stored as visual images, words, or abstract propositions? How do we master and store the complicated system of rules that allows us to use language? How do language and culture affect our understanding of the world? How is the knowledge stored in a computer like and unlike the knowledge stored in our heads?

The Cognitive Science Programs (Major and Specialist) draw on philosophy, linguistics, computer science and psychology to answer these questions. The Programs are excellent preparation for students interested in teaching in junior schools, who should add a course in Philosophy of Education, and obtain practice teaching experience. They are also an excellent base for students interested in careers in Speech Pathology, who should add courses in human physiology. Also, they prepare students for careers in Psychology and Philosophy, and are good adjuncts for careers in Computer Science and Neuroscience.
First-Year Students in Cognitive Science
LINAA1H, LIN1A2H, PHIA1H, PHIA1H, PSYA1H and PSYA2H recommended in first year if intending to pursue a Specialist or Major Program in Cognitive Science.

SPECIALIST PROGRAM IN COGNITIVE SCIENCE
Supervisor of Studies: W. E. Seager, (Room H323, 416-287-7151) Email: seager@fatcat.storonto.ca

Program Requirements
The Specialist Program consists of 12.5 FCEs (full credit equivalents). Nine are specified courses. Three and one-half are to be selected from four bins: (1) Psychology/Neuroscience, (2) Linguistics, (3) Philosophy, and (4) Cognate courses.

Specified Courses:
Nine full-credit equivalents:
LINAA1H General Linguistics I
LIN1A2H General Linguistics II
PHIA1H Introduction to Philosophy: Reason and Truth
PHIA1H Introduction to Philosophy: Value and Society
PSYA1H Introduction to Psychology: Part I
PSYA2H Introduction to Psychology: Part II
LINB1H1 Practical Language Analysis: Phonology
LINB1H2 Practical Language Analysis: Syntax
PHIB1H1 Belief, Knowledge and Truth
PHIB1H2 Foundations of Cognitive Science
PSYB1H1 Data Analysis in Psychology
PSYB1H2 Perception and Cognition
PSYB2H1 Memory and Cognition
LINB1H3 Practical Language Analysis: Morphology
PHIB1H1 Theories of Mind
PSYC1H1 Cognition and Representation
PHLC1H1 Psychology of Languauges
[CSCA1H1 Introduction to Computer Programming]
or
CSCA4H1 Introduction to Computer Science

NOTE: (1) Students with no familiarity with the use of computers would be advised to take CSCA1H1 in their first year, followed by CSCA4H1 in the following year. Students having familiarity with computers, but no computer programming skills, may wish to take CSCA4H1 in the first or second year. Only students with computer programming experience should attempt CSCA4H1 without first taking CSCA1H1. Students may wish to consult with the Program Supervisor before deciding on the most appropriate computer science course sequence.

1. Psychology/Neuroscience
One and one-half full-credit equivalents chosen from the following:
PSYB2H1 Introduction to Developmental Psychology
(PSYB5H1) Sensation and Perception
(PHYB5H1) Human Brain and Behaviour
PSYC2H1 Advanced Data Analysis in Psychology
PSYD2H1 Developmental Psychology Laboratory
PSYD3H1 Psychology of Music
PSYC3H1 Cognitive Psychology Laboratory
PSYC3H1 History of Psychology
PSYD3H1 Current Topics in Memory and Cognition
PSYD3H1 Current Topics in Perception
PSYD5H1 The Scientific Study of Conscious and Unconscious Influences
(PSTD5H1) Computational Models of Memory
PSYD9H1 Seminar in Computational Cognitive Neuroscience
NROB6H1 Neuroscience I: Cell Anatomy and Physiology
NROB6H1 Neuroscience II: Learning and Motivation

NROC3H1 Neuroscience II: Sensory and Motor Systems
NROC3H1 Synaptic Organizations of the Brain
COG1H1 Supervised Study in Cognitive Science

2. Linguistics
One half credit chosen from the following:
LINB1H1 Structure of English
LINB1H2 Second Language Learning
LINC1H1 Semantics: The Study of Meaning
PLC2H1 Developmental Psycholinguistics
PLD3H1 Acquisition of the Mental Lexicon
PLD5H1 Disorders of Speech and Language
COG1H1 Supervised Study in Cognitive Science

3. Philosophy and Theoretical Psychology
One half credit chosen from the following:
COG1H1 Supervised Study in Cognitive Science
PHIB1H1 Symbolic Logic I
PHIB1H1 Symbolic Logic II
PSYC1H1 Philosophy of Science
PHIB1H1 Philosophy of Language
PSYC1H1 Theoretical Psychology
PSYD1H1 Fundamental Issues in Cognitive Science

4. Cognate Courses
One full-credit equivalent chosen from the following:
MATB1H1 Linear Algebra I
[MATB1H1 Calculus I]
or
[MATB1H1 Calculus I (OAC)]
[MATB1H2 Calculus II for Biological Sciences]
MATB1H2 Calculus II for Physical Sciences
MATB1H3 Calculus II for Mathematical Sciences
MATB1H1 Linear Algebra II
MATB1H1 Introduction to Mathematical Logic
CSCB1H1 Software Design
CSCB1H1 Introduction to the Theory of Computation
CSCB1H1 Discrete Mathematics for Computer Science
CSCB1H1 Computer Organization
[CSCB1H1 Fundamental Data Structures and Techniques]

One-half course in Anthropology at the B-level or higher.

NOTE: It is expected that most students will take MATA2H1/MATA3H1 and MATA3H1/MATA3H1/H/MATA3H1 to fulfill their cognate course requirement.

MAJOR PROGRAM IN COGNITIVE SCIENCE
Supervisor of Studies: W. E. Seager, (Room H323, 416-287-7151) Email: seager@fatcat.storonto.ca

Program Requirements
The Major Program consists of 7.5 FCEs (full credit equivalents). Seven are specified courses.

Specified Courses:
Seven full-credit equivalents:
PSYA1H1 Introductory Psychology: Part I
PSYA2H1 Introductory Psychology: Part II
LINAA1H General Linguistics I
LIN1A2H General Linguistics II
LINB4H1 Practical Language Analysis: Phonology
LINB5H1 Practical Language Analysis: Syntax
LINB6H1 Practical Language Analysis: Morphology
PHILB4H1 Theories of Mind
PHILB4H1 Foundations of Cognitive Science
PSYB5H1 Perception and Cognition
PSYB5H1 Memory and Cognition
PHILC5H1 Psychologists
[STAB22H Statistics 1
PSYB07H1 Data Analysis in Psychology]
[CSCA09H Introduction to Computer Programming]
or
CSCA48H1 Introduction to Computer Science

NOTE: (i) Students with no familiarity with the use of computers would be advised to take
CSCA02H1 in their first year, followed by CSCA08H1 in the following year. Students having
familiarity with computers, but no computer programming skills, may wish to take CSCA08H1 in
the first or second year. Only students with computer programming experience should attempt
CSCA48H1 without first taking CSCA08H1. Students may wish to consult with the Supervisor of
Program before deciding on the most appropriate computer science course sequence.

Psychology:
One-half full-course equivalent chosen from the following:
PSYB20H1 Introduction to Developmental Psychology
PSYB30H1 Sensation and Perception
PSYB40H1 Human Brain and Behaviour
PSYOC0H1 Advanced Data Analysis in Psychology
[PSYSC3H1 Psychometric Methods Laboratory]
PSYC5H1 Cognition and Representation
PSYC6H1 Psychology of Music
PSYCS2H1 Theoretical Psychology
PSYD5H1 The Scientific Study of Conscious and Unconscious Influences
NR0B06H1 Neuroscience E Cell Anatomy and Physiology
CQCG91H1 Supervised Study in Cognitive Science

A written report or paper is normally required.
Limited enrolment: Students are advised that they must obtain consent from the
supervising instructor before registering for these courses.
Prerequisite: Three FCEs at the B- or
C-level in COG and/or LIN and/or PSY;
permission of the supervisor.

Computer Science
(B.Sc.)

Faculty List
W.H. Enright, B.Sc. (U.B.C.), M.Sc., Ph.D. (Toronto), Professor
D. J. Firth, B.Sc. (Ottawa), M.Sc., Ph.D. (Toronto), Professor
V. Hadzilacos, B.S. E. (Princeton), Ph.D. (Harvard), Professor
A. Menzies, B.S., M.S.E., M.A., Ph.D., (Princeton), Professor
M. Molloy, Ph.D. (Cornell University), Professor
N. KomLOS, B.Sc. (Padua), M.Sc. (Maryland), Ph.D (Toronto), Assistant Professor
N. Cheng, B.Sc., Senior Lecturer
G.I. Cupit, B.Sc. (I.U.B.C.), Senior Lecturer
R. Panner, B.Sc., M.Sc., (Toronto), Senior Lecturer
A. Rosselot, B.Sc. (N. Carolina State), M.Sc., Ph.D. (Toronto), Senior Lecturer
A. Bestacher, B.Sc., M.Sc. (Queens), Ph.D. (Toronto), Lecturer
C. Jaram, B.Sc., M.Sc., (Toronto), Lecturer
M. Szemet, B.A. (Brandeis), M.A., (Harvard), Lecturer

Associate Chair: V. Hadzilacos (416-297-7126)

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. The Specialist Program in Computer Science prepares a student for graduate study and for a
professional position in the computer field.

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 CSCB07H, are limited enrolment with
preference being given to students admitted to and enrolled in CSC programs. If, towards the end
of the registration period, places 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:

• All prerequisites for the course(s) must be satisfied
• 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 CSCB07H
• 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
• Permission to enrol must be confirmed by the Supervisor of Studies. Details will be posted on
web sites during registration.
SPECIALIST PROGRAM IN COMPUTER SCIENCE

This program has six streams:

1. Comprehensive Stream
2. Information Systems Stream
3. Software Engineering Stream
4. Joint Mathematics Stream
5. Joint Physics Stream
6. Joint Statistics Stream

Program Admission
Each year, 80 students are admitted to the six 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 Geometry and Discrete Mathematics and one other Grade 12 mathematics course, or OAC Calculus and OAC Algebra and Geometry.

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 full credit equivalents) will be accepted on the basis of their first 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 2.00 and for this year it will not be greater than 2.80.

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 satisfactorily 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 UTSC and at the St. George campus. UTSC students are expected to take courses that are offered on both campuses at UTSC. Due to current high demand for Computer Science courses, the Department of Computer Science at the St. George campus cannot guarantee space for UTSC students in their courses, especially those offered at UTSC. This means that it may not be possible for a UTSC Computer Science student to enrol in the St. George section of a course that is offered at UTSC, even in a session when that course is not offered at UTSC.

1. Comprehensive Stream
   Supervisor of Studies: R. Panzer (416-287-7670)  Email: panzer@ee.isc.utoronto.ca
   This stream requires 14.5 FCEs.

Writing requirement
(Should be completed by the end of second year.)
One of:
ANTA20H1 Introduction to Anthropology: Becoming Human
ANTA20H1 Introduction to Anthropology: Society, Culture and Language
CLRA02H1 Classical Mythology I: Myths of the Gods
ENGA10H1 Introduction to Literary Study: 1890 to World War II

ENG1A1H Introduction to Literary Study: 1945 to Today
ENG20H1 Canadian Literary Traditions
ENG20H1 Nation in Canadian Writing
ENG20H1 Culture and the Emergence of a Liberal Nation
ENG20H1 American Literature from the Civil War to the Present
ENG20H1 Contemporary Literature from the Caribbean
ENG20H1 Contemporary Literature from South Asia
ENG20H1 Women and Literature: Forging a Tradition
ENG20H1 Gender and Crime
GGRA02H1 The Geography of Global Processes
GGRA03H1 Cities and Environments
GGGR05H1 Urban Geography
GGGR06H1 Planning in Canada
HIS410H1 The Twentieth Century World I
HILTA0H1 Plagues and Peoples
LGA311H1 Introduction to Canadian Culture and Society: A Course for Non-Native Speakers of English
LGA311H1 Current Approaches to the Academic Writing Process I: A Course for Non-Native Speakers of English
LGA311H1 Writing Practicum: A Course for Non-Native Speakers of English
LGA311H1 Linguistic Concepts for Effective Writing
LGA311H1 General Linguistics I
PH201H1 Reason and Truth
PH201H1 Introduction to Ethics
WSTA01H1 Introduction to Women's Studies

A-level courses
CSCA08H1 Introduction to Computer Programming
CSCA08H1 Introduction to Computer Science
CSCA08H1 Mathematical Expression and Reasoning for Computer Science
MAT22H1 Linear Algebra I
MAT22H1 Calculus I
MAT23H1 Calculus II

B-level courses
CSCB07H1 Software Design
CSCB07H1 Software Tools and Systems Programming
CSCB07H1 Introduction to the Theory of Computation
CSCB07H1 Computer Organization
CSCB07H1 Design and Analysis of Data Structures
MAT22H1 Linear Algebra II
MAT22H1 Techniques of the Calculus of Several Variables I
MAT24H1 Techniques of the Calculus of Several Variables II
STA23H1 Introduction to Probability Theory

C-level courses
CSCC24H1 Principles of Programming Languages
CSCC24H1 Introduction to Databases
CSCC24H1 Numerical Algebra and Optimization
CSCC24H1 Numerical Approximation, Integration and Ordinary Differential Equations
CSCC24H1 Computational and Computational Complexity
CSCC24H1 Operating Systems
CSCC24H1 Algorithm Design and Analysis

D-level courses
CSCD12H1 Social Impact of Information Technology
**Elective courses, all levels**

Two of (additional courses related to the practice of computing):
- CSC3401 Programming on the Web
- CSC4498 Analysis and Design of Information Systems
- CSC355I Microprocessor Systems
- CSCD601 Software Engineering
- CSCD101 Computer Graphics
- CSCD311 Database System Technology
- CSCD451 Computer Networks
- CSCD211 Introduction to Neural Networks and Machine Learning
- CSCD371 Microprocessor Software
- CSC3481 Introduction to Artificial Intelligence
- CSC345I Human-Computer Interaction
- CSC3581 The Business of Software
- CSC3691 Operating Systems Design and Implementation
- CSC455I Computational Linguistics
- CSC4581 Compilers and Interpreters

Two of (additional fundamental Mathematics courses):
- MATB431 Introduction to Analysis
- MATB401 Ordinary Differential Equations
- MATC301 I Groups and Symmetry
- MATC302 I Fields and Groups
- MATC351 I Introduction to Number Theory
- MATC341 I Complex Variables
- MATC355I Chaos, Fractals and Dynamics

One of (additional courses related to the theory of computing):
- MATB601I Linear Programming and Optimization
- MATC301I Introduction to Mathematical Logic
- MATC361 I Coding Theory and Cryptography
- MATC321 I Graph Theory and Algorithms for its Applications
- MATC441 I Introduction to Combinatorics
- CSC349I Computability and Logic
- CSC446I Computational Methods for Partial Differential Equations
- CSC448I Formal Languages and Automata
- CSC458I High-Performance Scientific Computing
- CSC458I Formal Methods in Software Design

**2. Information Systems Stream**

*Supervisor of Studies: R. Pancer (416-287-7690) Email: pancer@utac.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 16.5 FCEs.

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

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**A-level courses**
- CSE240I Introduction to Computer Programming
- CSE4498 Introduction to Computer Science
- CSE455I Mathematical Expression and Reasoning for Computer Science
- MAT221H Linear Algebra I
- MAT248H Calculus I
- MAT247H Calculus II for Mathematical Sciences
- MGMTA31H Introduction to Management I
- MGMTA41H Introduction to Management II

**B-level courses**
- CSE207H Software Design
- CSEB99H Software Tools and Systems Programming
- CSC365I Introduction to the Theory of Computation
- CSEB583H Computer Organization
- CSE363H Design and Analysis of Data Structures
- MATB241H Linear Algebra II
- MATB441H Techniques of the Calculus of Several Variables I
- MATB421H Techniques of the Calculus of Several Variables II
- STA521H Introduction to Probability Theory
- MGTB231H Managing People in Organizations
- MGTB291H Managing Groups in Organizations

**C-level courses**
- CSCC241H Principles of Programming Languages
- CSCC401H Analysis and Design of Information Systems
- CSCC431H Introduction to Databases
- CSCC434H Computability and Computational Complexity
- CSCC469H Operating Systems
- CSCC731H Algorithm Design and Analysis

**D-level courses**
- CSDC031H Social Impact of Information Technology
- CSDC081H Software Engineering
- CSDC431H Database System Technology

**Elective courses, all levels**

One of (additional courses in scientific computing):
- CSCO359H Numerical Methods
- CSCO358H Numerical Algebra and Optimization

Two of (additional courses related to the practice of computing):
- CSECC99H Programming on the Web
- CSECC451 Microprocessor Systems
- CSEC318H Computer Graphics
- CSEC358H Computer Networks
- CSEC221H Introduction to Neural Networks and Machine Learning
- CSEC371H Microprocessor Software
- CSEC4481 Introduction to Artificial Intelligence
- CSEC455I Formal Methods in Software Design
- CSEC4581 Operating Systems Design and Implementation
- CSEC458I Computational Linguistics
- CSEC4581 Compilers and Interpreters
One of (additional courses related to business and computing):
MATB61H1 Linear Programming and Optimization
MATC31H1 Introduction to Mathematical Finance
MGTC74H1 Analysis for Decision-Making
CISC45H1 The Business of Software

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

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

A-level courses
CISC30H1 Introduction to Computer Programming
CISC30H1 Introduction to Computer Science
CISC30H1 Mathematical Expression and Reasoning for Computer Science
MATB23H1 Linear Algebra I
MATB36H1 Calculus I
MATB37H1 Calculus II for Mathematical Sciences

B-level courses
CISC50H1 Software Engineering
CISC50H1 Software Tools and Systems Programming
CISC50H1 Introduction to the Theory of Computation
CISC50H1 Computer Organization
CISC50H1 Design and Analysis of Data Structures
MATB23H1 Linear Algebra II
MATB36H1 Techniques of the Calculus of Several Variables I
MATB37H1 Techniques of the Calculus of Several Variables II
STAB22H Introduction to Probability Theory

C-level courses
CISC50H1 Principles of Programming Languages
CISC50H1 Analysis and Design of Information Systems
CISC50H1 Introduction to Databases
CISC50H1 Computer and Computational Complexity
CISC50H1 Operating Systems
CISC50H1 Algorithm Design and Analysis

D-level courses
CISC50H1 Social Impact of Information Technology
CISC50H1 Software Engineering

Elective courses, all levels
One of (additional courses in scientific computing):
CISC50H1 Numerical Methods
CISC50H1 Numerical Algebra and Optimization
Four of (additional courses in the practice of computing):
CISC50H1 Programming on the Web
CISC50H1 Microprocessor Systems
CISC50H1 Computer Graphics
CISC50H1 Database System Technology
CISC50H1 Computer Networks
CISC50H1 Operating Systems Design and Implementation
CISC50H1 Compilers and Interpreters

4. Joint Mathematics Stream
Supervisor of Studies: R. Pancer (416-287-7679) Email: pancer@utsc.utoronto.ca
This stream requires 15.5 FCEs

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

A-level courses
CISC30H1 Introduction to Computer Programming
CISC30H1 Introduction to Computer Science
CISC30H1 Mathematical Expression and Reasoning for Computer Science
MATB23H1 Linear Algebra I
MATB36H1 Calculus I
MATB37H1 Calculus II for Mathematical Sciences

B-level courses
CISC50H1 Software Design
CISC50H1 Introduction to the Theory of Computation
CISC50H1 Computer Organization
CISC50H1 Design and Analysis of Data Structures
MATB23H1 Linear Algebra II
MATB36H1 Techniques of the Calculus of Several Variables I
MATB37H1 Techniques of the Calculus of Several Variables II
MATB37H1 Ordinary Differential Equations
STAB52H1 Introduction to Probability Theory

C-level courses
CISC50H1 Numerical Algebra and Optimization
CISC50H1 Computer and Computational Complexity
CISC50H1 Algorithm Design and Analysis
MATC30H1 Groups and Symmetry
MATC30H1 Complex Variables

Elective courses, all levels
One of (additional courses in computing systems):
CISC50H1 Principles of Programming Languages
CISC50H1 Introduction to Databases
CISC50H1 Operating Systems
Four of (mathematics courses with applications in theory of computing):
MATC30H2 Fields and Groups
MATB39H1 Introduction to Mathematical Logic
MATC31H1 Introduction to Number Theory
MATC31H1 Coding Theory and Cryptography
MATC32H1 Graph Theory and Algorithms for its Applications
MATC44H1 Introduction to Combinatorics
Three of (additional courses in analysis -- numerical, real and complex):
CISC50H1 Numerical Approximation, Integration and Ordinary Differential Equations
MATC35H1 Chaos, Fractals and Dynamics
MATC37H1 Introduction to Real Analysis
MATC40H1 Differential Equations II
MATC45H1 Complex Analysis II

One of (courses in the relationship of science and society):
PSYC60H1 Current Questions in Mathematics and Science
CISC50H1 Social Impact of Information Technology
5. Joint Physics Stream

Supervisor of Students: C.C. Dyer (416-287-7206) Email: dyer@utsc.utoronto.ca

This stream requires 17 FCEs.

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

A-level courses
CSCA4H1 Introduction to Computer Programming
CSCA4H1 Introduction to Computer Science
CSCA4H1 Mathematical Expression and Reasoning for Computer Science
MATA23H1 Linear Algebra I
MATA30H1 Calculus I
MATA37H1 Calculus II for Mathematical Sciences
PHYA10H1 Introduction to Physics I
PHYA21H1 Introduction to Physics II

B-level courses
CSCB07H1 Software Design
CSCB09H1 Software Tools and Systems Programming
CSCB10H1 Introduction to the Theory of Computation
CSCB58H1 Computer Organization
CSCD03H1 Design and Analysis of Data Structures
MATAB4H1 Linear Algebra II
MATH41H1 Techniques of the Calculus of Several Variables I
MATH42H1 Techniques of the Calculus of Several Variables II
MATH44H1 Ordinary Differential Equations
STAT22H1 Introduction to Probability Theory
PHYB30H1 Vibrations and Waves
PHYB31H1 Electricity and Magnetism
PHYB10H1 Intermediate Physics Laboratory I
PHYB24H1 Introduction to Quantum Physics
PHLL70H1 Philosophy of Science
[PHYB11H1 Intermediate Physics Laboratory I or
CSCB53H1 The Instrumentation of Science

C-level courses
CSCC50H1 Numerical Algebra and Optimization
CSCC51H1 Numerical Approximation, Integration and Ordinary Differential Equations
CSCC53H1 Computational and Computational Complexity
CSCC73H1 Algorithm Design and Analysis
CSCC83H1 Microprocessor Systems
PSCC31H1 Physical Principles of Modern Technology

Elective courses, all levels
One of (additional courses in computer systems):
CSCC24H1 Principles of Programming Languages
CSCC34H1 Introduction to Databases
CSCC99H1 Operating Systems

One of (additional courses in Physics): any 300-level or higher PHY course on the St. George campus

One of (additional courses in the relationship between science and society):
PSCD30H1 Current Questions in Mathematics and Science
CSCD30H1 Social Impact of Information Technology

6. Joint Statistics Stream

Supervisor of Students: M. Evans (416-287-7274) Email: evans@utsc.utoronto.ca

This stream requires 15.5 FCEs.

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

A-level courses
CSCA4H1 Introduction to Computer Programming
CSCA4H1 Introduction to Computer Science
CSCA4H1 Mathematical Expression and Reasoning for Computer Science
MATA23H1 Linear Algebra I
MATA30H1 Calculus I
MATA37H1 Calculus II for Mathematical Sciences

B-level courses
CSCB07H1 Software Design
CSCB09H1 Software Tools and Systems Programming
CSCB10H1 Introduction to the Theory of Computation
CSCB58H1 Computer Organization
CSCB63H1 Design and Analysis of Data Structures
MATAB4H1 Linear Algebra II
MATH41H1 Techniques of the Calculus of Several Variables I
MATH42H1 Techniques of the Calculus of Several Variables II
STAT22H1 Introduction to Probability Theory
STAT57H1 Introduction to Mathematical Statistics

C-level courses
CSCC50H1 Numerical Algebra and Optimization
CSCC51H1 Numerical Approximation, Integration and Ordinary Differential Equations
CSCC63H1 Computational and Computational Complexity
CSCC73H1 Algorithm Design and Analysis

Elective courses, all levels
One of (additional Mathematics courses):
MATH43H1 Introduction to Analysis
MATH44H1 Ordinary Differential Equations
MATH61H1 Linear Programming and Optimization
MATC31H1 Groups and Symmetry
MATC35H1 Introduction to Number Theory
MATC34H1 Complex Variables
PSCD20H1 Chaos and Fractals

One of (additional courses in computer systems):
CSCC24H1 Principles of Programming Languages
CSCC34H1 Introduction to Databases
CSCC99H1 Operating Systems

Four of (additional courses in statistics and related topics):
Any C-level STA course
Any 300- or 400-STA course on the St. George campus
MATC61H1 Introduction to Mathematical Finance

One of (additional courses in the relationship between science and society):
PSCD30H1 Current Questions in Mathematics and Science
CSCD30H1 Social Impact of Information Technology

Note: 300-series and 400-series must be completed at the St. George campus. Consult the Department of Computer Science Undergraduate Handbook or consult the web site http://www.cs.utoronto.ca.
SPECIALIST (CO-OPERATIVE) PROGRAM IN COMPUTER SCIENCE

Supervisor of Studies: R. Pancer (416-287-7679) Email: pancer@csie.utoronto.ca
Co-op Contact: R. Louden (416-287-7254), Email: rlouden@csie.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 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 complete the Arts & Science Work Term Preparation course before going on 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 PROGRAM IN COMPUTER SCIENCE

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

Program Admission

Each year up to 90 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 3.00 and this year it will not be greater than 2.80.

Program Requirements

This program requires 8 FCEs. 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 UTSC and at the St. George campus. UTSC students are expected to take courses that are offered on both campuses at UTSC. Due to current high demand for Computer Science courses, the Department of Computer Science at the St. George campus cannot guarantee space for UTSC students in their courses, especially those offered at UTSC. This means that it may not be possible for a UTSC Computer Science student to enroll in the St. George section of a course that is offered at UTSC, even in a session when that course is not offered at UTSC.

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

CSCE21H Introduction to Computer Programming
CSCE24H Introduction to Computer Science
CSCE29H Mathematical Expression and Reasoning for Computer Science
MAT133H Linear Algebra I
MAT230H Calculus II
MAT237H Calculus II for Mathematical Sciences

B-level courses

CSCE28H Software Design
CSCE36H Introduction to the Theory of Computation
CSCE38H Computer Organization
CSCE43H Design and Analysis of Data Structures
MAT284H Linear Algebra II
STAB32H Introduction to Probability Theory

Elective courses, all levels

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

CSCE299H Programming on the Web
CSCE34H Principles of Programming Languages
CSCE40H Analysis and Design of Information Systems
CSCE43H Introduction to Databases
CSCE49H Operating Systems
CSCE55H Microprocessor Systems
CSCI11H Computer Graphics
CSCI41H Computer Software Engineering

One of (additional courses in scientific computing):

CSCE30H Numerical Methods
CSCE30H Numerical Algebra and Optimization

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

CSCE33H Computability and Computational Complexity
CSCE37H Algorithm Design and Analysis
CSCE43H Formal Languages and Automata
CSCE46H Formal Methods in Software Design

One of (additional courses in mathematics):

MATB41H Techniques of the Calculus of Several Variables I
MATB61H Linear Programming and Optimization
MATC99H Introduction to Mathematical Logic
MATC32H Graph Theory and Algorithms for its Applications
MATC46H Coding Theory and Cryptography
MATC44H Introduction to Combinatorics

SPECIALIST PROGRAM IN MANAGEMENT AND INFORMATION TECHNOLOGY

(See the Management section of this Calendar.)
CSCA49H3 The Whys and How of Computing
An introduction to computers and their use. System operations (commands, files, security), common applications (data bases, word processing, spreadsheets) and basic programming concepts. Other topics include: data organization, communications, office automation, electronic mail, and internet tools. This course is intended for non-science students. Exclusion: SMC10H4, VIC10H4. This course may not be taken after or concurrently with any other CSC course.

CSCA48H3 Introduction to Computer Programming
Structure of computers; the computing environment. Programming in an object-oriented language such as Java. Program structures in an object-oriented language; classes, objects, methods, fields. Internal structure of methods: elementary data types, statements, control flow, arrays, searching, sorting and complexity. Exclusion: CSC107H, CSC108H, CSCA48H3, CSCA48H4, CSCA55H3, Prerequisite: Grade 12 Mathematics. Note: This course is intended for students with no prior exposure to computer programming. Students who have sufficient programming experience may enroll directly in CSCA44H4; consult the instructor or the Supervisor of Studies for guidance.

CSCA46H3 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. Exclusion: CSC165H1, CSC240H1 Prerequisite: [CSCA49H3 or CSCA48H1] & [two OACs from Calculus, Algebra & Geometry, Finite Mathematics or Grade 12 Geometry and Discrete Mathematics & one other Grade 12 mathematics course]. Corequisite: CSCA48H4.

CSCA47H3 Software Design
An introduction to software design and development concepts, methods, and tools. Core topics: object-oriented design and programming; the role of scripting in the software development process; unit testing; version control; build management. Exclusion: CSC39H1, CSC297H1 Prerequisite: CSCA44H1 or CSCA45H1 Corequisite: CSCA56H1.

CSCA469H3 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. Exclusion: CSCA48H4 Prerequisite: CSCA48H4, or CSCA56H1, & [COPA 2.5 or enrolment in a CSC subject POS].

CSCA48H3 Introduction to the Theory of Computation
Mathematical induction with emphasis on applications relevant to computer science. Aspects of mathematical logic, correctness proofs for iterative and recursive algorithms, solutions of linear and divide-and-conquer recurrences, introduction to automata and formal languages. Exclusion: CSC38H3, CSC38H4, CSC32H3, CSC40H1 Prerequisite: [CSCA48H1 or CSCA56H1] or [COPA 2.5 or enrolment in a CSC subject POS].

CSCB53H3 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. Exclusion: CSC258H1 Prerequisite: [CSCA44H1 or CSCA56H1] or [CSCA57H1 or PSOC57H1] & [COPA 2.5 or enrolment in a CSC subject POS].

CSCB53H3 Design and Analysis of Data Structures

CSCB59H3 Programming the Web
An introduction to software development on the web. Concepts underlying the development of programs that operate on the web. Operational concepts of the internet and the web, static and dynamic client content, dynamically served contents, n-tiered architectures, web development processes and security on the web. Exclusion: CSC36H9 Prerequisite: CSCB09H1 & [CSCA43H1 or CSCB29H1] & [COPA 3.0 or enrolment in a CSC subject POS].

CSCA248H3 Principles of Programming Languages
Major topics in the development of modern programming languages. Syntax specification, type systems, type interface, exception handling, information hiding, structural recursion, run-time storage management, and programming paradigms. Two non-procedural programming paradigms: functional programming (e.g., Lisp, Scheme, ML or Haskell) and logic programming (e.g., Prolog, XSB or Coral). Exclusion: CSCA32H1 Prerequisite: [CSCB07H1 or CSCB08H1] & [CSCB56H1 or CSB38H3] & [COPA 3.0 or enrolment in a CSC subject POS].

CSCA36H3 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. Exclusion: CSCA35H1, CSCA51H, ACT33MH, ACT33HY, CSCA36H1, CSCA35H1 Prerequisite: [PSOC57H1 or CSCA57H1] or [CSCA47H1 or CSCA58H1] or [CSCA76H1 or [COPA 3.0 or enrolment in a CSC subject POS].

CSCB41H3 Analysis and Design of Information Systems
Theory, tools and techniques of information system analysis and design. Topics include: theory of systems and organizations, structured analysis and design, user interface design. Exclusion: CSCA40H1 Prerequisite: [CSCA56H4 or CSCA57H4] & [COPA 3.0 or enrolment in a CSC subject POS].
CSCC438H1 Introduction to Databases
Introduction to database management systems. The relational model. Relational algebra. Querying and updating databases: the SQL query language. Application programming with SQL. Integrity constraints, normal forms, and database design. Elements of database system technology: query processing, transaction management.
Exclusion: CSC343H1, CSC354H1, CSC344H1
Prerequisite: [CSCC31H3 or (CSCC37H3)] & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCC554H1 Numerical Analysis 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.
Exclusion: CSC367H1, CSC365H1
Prerequisite: [CSCB37H7 or CSCB57H7 or CSCB70H7 or (CSCB70H8) & MATB42H1 & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCC451H1 Numerical Approximation, Integration and Ordinary Differential Equations
Exclusion: CSC354H1, ACT232H1, CSC355H1, CSC355H1
Prerequisite: CSC311H1 & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCC453H3 Computability and Computational Complexity
Exclusion: CSC365H1, CSC365H1, (CSC364H1), CSC364H1
Prerequisite: [CSCB36H1 or (CSCB38H1)] & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCC564H1 Operating Systems
Principles of operating systems. The operating system as a control program and as a resource allocator. The concept of a process and concurrency problems: synchronization, mutual exclusion, deadlocks. Additional topics include memory management, file systems, process scheduling, interrupts, and protection.
Exclusion: CSC369H1, CSC468H1
Prerequisite: [CSCB70H1 or CSCB70H4] & [CSCB80H8 & CSCB81H8] & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCC483H3 Algorithm Design and Analysis
Standard algorithm design techniques: divide-and-conquer, greedy strategies, dynamic programming, linear programming, randomization, and possibly others.
Exclusion: CSC373H1, CSC375H1, (CSC464H1), CSC364H1
Prerequisite: [CSCB36H1 or (CSCB37H1)] & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCC583H3 Microprocessor Systems
A study of hardware and software aspects of microprocessors and microcomputers. 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.
Limited enrolment: 100
Exclusion: ECESC5H1
Prerequisite: [CSCB39H1 & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCD30H3 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; computational 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.
Limited enrolment: 25
Exclusion: CSC300H1, [PSCD30H1] & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCD30H3 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.
Exclusion: CSC468H1
Prerequisite: CSCC54H1 & [CSCB89H1 or proficiency in C] & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCD30H3 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, graphics packages and systems.
Exclusion: CSCA41H1
Prerequisite: [MATB24H1 & MATB25H1] & [CSCB80H1 or proficiency in C] & [CSCC36H1 or CSCC37H1] & [CSCC36H1] & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCD42H3 Database System Technology
Exclusion: CSC44H1
Prerequisite: [CSCC43H1 OR (CSCD43H1) & CSCB99H1 & [CSCC27H1 or (CSCD43H1)] & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCD59H3 Computer Networks
Computer communications and networking. Principles and practice. The OSI protocol-layer model; Internet application layer and naming; transport layer and congestion avoidance; network layer and routing; link layer with local area networks, connection-oriented protocols and error detection and recovery; multimedia networking with quality of service and multicast services. Principles in the context of the working code model implemented in the Internet.
Exclusion: CSC458H1
Prerequisite: CSCB55H1 & CSCB63H1 & [STAB12H1 or STAB12H or STAB14H1] & [CPGA 3.0 or enrollment in a CSC subject POSI]

CSCD49H3 Computer Science Project
A significant project in any area of computer science. The project may be undertaken individually or in small groups. This course is offered by arrangement with a computer science faculty member, at UTSC 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.
Exclusion: CSC30H1
Prerequisite: [Three C-level computer science half-courses & [permission of the Supervisor of Studies] & [CPGA 3.0 or enrollment in a CSC subject POSI]
Enrollment procedures: Project supervisor's note of agreement must be presented to the Supervisor of Studies, who must issue permission for registration.
a first project completed will be able to perform almost at the level of a graduate student.
Exclusion: CSC495H
Prerequisite: CSCD95H
Students must obtain consent from the Supervisor of Studies before registering for this course.

Diaspora and Transnational Studies

(F.A.)

Faculty List
M. Lambe, B.A. (McGill), M.A., Ph.D. (Michigan), F.R.S.C., Professor
M.B. Golden, M.A., M.Litt. (Victoria), Ph.D. (Toronto), Associate Professor
N. Ivan Ruten, M.A., M.Ed. (Toronto), Associate Professor
E.A. Hartley, M.Phil., Ph.D. (London, U.K.), Assistant Professor

Superintendent of Studies: TBA

What 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. 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 DIASPORA AND TRANSNATIONAL STUDIES

Program Requirements
Students must complete 7.5 full credits (FCEs) as follows:

1. DTSB01H Introduction to Diaspora and Transnational Studies I
2. DTSB02H Introduction to Diaspora and Transnational Studies II
3. 5.0 FCEs from Group A and Group B courses (below) with at least 2.0 FCEs from each group.
4. Two D-level caps of one semester (1.0 FCE). (These courses are under development. Their specific course codes and titles will be published as soon as they are available.)
5. At least one other course must be at the C-level or above.

Group A (Humanities) courses

- ENGB1H Contemporary Literature from the Caribbean
- ENNG1H Ethnic Traditions in American Literature
- ENGC7H The Immigrant Experience to 1940
- ENCC7H The Immigrant Experience in Literature since 1940
- ENGD7H Between Traditions and Freedoms: Writing by Canadians of Asian Descent
- FREB2H1 The Francophone World
- FREB2H2 Francophone Literature
- FREB7H1 Cinema of the Francophone World

Group B (Social Sciences) courses

- ANTH20H The Chinese Diaspora
- ANTC34H The Anthropology of Transnationalism
- GGRC19H Spaces of Multicultural: Critical Mixed Race Theory
- GGRC35H Local Geographies of Globalization
- POLA33H Leaving Home: Politics and Immigration
- SOCC35H Comparative Ethnic and Race Relations
- SOSC34H Globalization: Causes, Consequences and Critiques

Plus courses identified by the Faculty of Arts & Science or by UTM as a Group A course.

Faculty of Arts & Science and UTM courses that can be applied to the program:

- English
  - ENGB26Y Twentieth-Century North-American Jewish Literature
  - ENGB27Y Introduction to African Canadian Literature
  - ENGB27Y Chinese North American Literature in English

- Fine Art History
  - FAH466H Colonialism and Modernity in South Asian Arts

- Finnish-Studies
  - FIN32H The Finnish Canadian Immigrant Experience

- French
  - FRE332H Francophone Literature I
  - FRE431H Francophone Literature II

- Geography
  - GGRC340H Canada in a Global Context
  - GGRC363H Critical Geographies: An Introduction to Radical Ideas on Space, Society and Culture
  - GGRC42H1 Space, Power, Geography: Understanding Spatiality

- German
  - GER362H Soviet and Kosher: Jewish Culture in the Soviet Union
  - GER364H History of Yiddish Cinema
## Diaspora and Transnational Studies

### Historical Studies
- **HIS206Y** Medieval History of the Jewish People
- **HIS208Y** Modern History of the Jewish People
- **HIS209Y** Caribbean History and Culture
- **HIS209X** Black Freedom
- **HIS301Y** The Mediterranean, 600-1700: Crusade, Colonialism, Diaspora
- **HIS303Y** Popular Culture and Politics in the Modern Caribbean
- **HIS306Y** Chinese Migration
- **HIS323Y** Women and Gender in Modern Jewish History
- **HIS356Y** Zionism and Israel
- **HIS359Y** Regional Politics and Radical Movements in the 20th Century Caribbean
- **HIS360Y** African-Canadian History, 1606-Present
- **HIS370Y** The Black Experience in the United States Since the Civil War
- **HIS375Y** Voices From Black America
- **HIS394Y** South Asian Migration and Settlement
- **HIS397Y** Globalization, Science, and Technology
- **HIS446Y** Gender and Slavery in the Atlantic World
- **HIS456Y** Black Slavery in Latin America
- **HIS481Y** Modernity and its Others: History and Postcolonial Critique
- **HIS493Y** Travelers and Scholars East/West

### Irish College
- **IN127Y** Race and Representation

### Italian Studies
- **ITA233Y** Ethnicity and Mainstream Italian Canadian Culture
- **ITA343Y** Italian Canadian Literature I: Life in a New World
- **ITA493Y** Italian Canadian Literature II

### Near and Middle Eastern Civilizations
- **NMC274Y** Steppe Frontier in Islamic History
- **NMC357Y** Mass Media and in the Middle East
- **NMC370Y** Ancient Israel
- **NMC385Y** Intellectuals of the Arab World
- **NMC470Y** Orientalism and Occidentalism

### New College: African Studies
- **NEW30Y** Introduction to African Studies
- **NEW294Y** Black Freedom

### New College: Caribbean Studies
- **NEW223Y** Caribbean Literature and Society
- **NEW229Y** Caribbean Thought I
- **NEW324Y** Caribbean Thought II
- **NEW329Y** Caribbean Women Thinkers
- **NEW326Y** Indenture, Survival, Change

### New College: Equity Studies
- **NEW343H** The Romani Diaspora in Canada

### New College: Women’s Studies
- **NEW368H** Gender and Cultural Difference: Transnational Perspectives
- **NEW369Y** Studies in Post-Colonial
- **NEWXXX** Gender and the Sacred: African Cosmologies in the Wake of the Middle Passage

## Political Science
- **POL349Y** Globalization and Urban Politics in Europe and North America
- **POL358Y** Post-Colonial Questions: Politics, Knowledge, Power
- **POL443H** The Colonial State and its Forms of Power

## Religion
- **RLG341H** Dreaming of Zion: Exile and Return in Jewish Thought
- **RLG430H** Jewish Culture in Medieval Latin, Greek, and Arabic Europe

## St. Michael’s College
- **SMC113H** The Irish in Canada
- **SMC141H** The Scots in Canada
- **SMC416H** Irish Nationalism in Canada and the United States

## Slavic Language and Literature
- **SLA238H** Literature of the Ukrainian-Canadian Experience

## Sociology
- **SOC318Y** Asian Communities in Canada
- **SOC341Y** The Jewish Community in Europe and North America
- **SOC441Y** Contemporary International Migration
- **SOC333H** The Sociology of Women and International Migration

## Spanish and Portuguese
- **SPA480H** Theories of Culture in Latin America
- **SPA486H** Contemporary Caribbean Literatures and Identities

## Victoria College
- **VIC350Y** Creative Writing: A Multicultural Approach

## UTM Courses
### Anthropology
- **ANT361H** African Cultures

### English
- **ENG272H** Literature and Exile

### French
- **FRE290Y** Aspects of Francophone Cultures
- **FRE300H** Women of the Francophone World
- **FRE995H** Films of the Francophone World

### History
- **HIS2XXH** Diasporic Canada
- **HIS3XXH** Diasporic Histories & Cultures

### Linguistics
- **LIN366H** Creoles

## Political Science
- **POL362H** Decolonizing Political Science I
- **POL363H** Decolonising Political Science II
Sociology
SOC277Y Globalization
SOC332H Race and Ethnicity II
SOC333H Race and Ethnicity II
SOC338H Global Diaspora
SOC353H Sociology of Globalization since 1945
SOC354H Global Sociology

Visual Culture and Communication
VCC202H Visual Culture Through the Post Colonial Lens
VCC304H Visual Culture and the Construction of Identity

Women's and Gender Studies
WGS235H Immigrant and Refugee Women
WGS269Y Gender, Colonialism and Cultural Resistance

MINOR PROGRAM IN DIASTROPA AND TRANSATIONAL STUDIES

Program Requirements
Students must complete 4.0 full credits (FCEs) as follows:
The specific requirements of the minor program at UTSC (4.0 FCEs) are as follows:

1. DTSS801H Introduction to Diaspora and Transnational Studies I
2. DTSS802H Introduction to Diaspora and Transnational Studies II
3. 3.0 FCEs from Group A and Group B courses (see the Major Program above) with at least
   1.0 FCE from each group
4. At least 1.0 FCE must be at the C-level or above.

Drama
See the Visual and Performing Arts section of this Calendar.

Economics For Management Studies
(B.B.A./B.A.)

Faculty List
D. Hyatt, B.A., M.A., Ph.D. (Toronto), Professor
M. Krashinsky, S.B. (MIT), M. Phil., Ph.D. (Yale), Professor
L.C. Parker, B.A. (Manitoba), M.A. (Toronto), Ph.D. (Yale), Associate Professor
M. Campion, B.Sc., M.A., Ph.D. (Toronto), Assistant Professor
C. Capraise, B.A. (Roger's), M.A., Ph.D. (Columbia), Assistant Professor
G. Frazer, B.Math (Waterloo), B.Ed. (Western), M.A. (Toronto), Ph.D. (Yale), Assistant Professor
W. Hejazi, B.A. (Western Ontario), M.A., Ph.D. (Toronto), Assistant Professor
H. Krashinsky, B.A. (Queen's), M.A., Ph.D. (Princeton), Assistant Professor
H. Tian, B.Sc. (Shanghai), M.Sc., Ph.D. (McGill), Assistant Professor
G. Cleveland, B.A. (Dalhousie), B.A., Ph.D. (Toronto), Senior Lecturer
E.M.S. Au, B.A., M.A., Ph.D. (Simon Fraser), Lecturer
J. Parkinson, B.A. (Western Ontario), M.A., Ph.D. (Toronto), Lecturer
M.A. Silliman, B.Sc., M.A., M.B.A. (Toronto), Ph.D. (McMaster), Lecturer

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
these 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 those 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 or specialist co-op Program in
Economics for Management Studies as part of the B.B.A., or in the Management Studies Program
in economics as part of the B.A. degree. Students may also choose economics as a stream in the
B.B.A. Program. There is also a joint specialist Program with political science. Finally,
economics plays a significant role within the general B.B.A. Program.

Students wishing to pursue a graduate program in Economics will require some additional
courses in Econometrics not offered at UTSC, and in additional courses in Mathematics. Such
students should consult with the Undergraduate Secretary of the Department of Economics at the
St. George campus, or the graduate secretary of the Department of Economics where they intend
'co-locate' work to determine what additional courses would be required to do graduate work
in this field. The Supervisor of Studies at UTSC can help you with this task.

Programs in Economics for Management Studies:
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 is consistent with a twenty-credit degree (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 is consistent with a twenty-credit degree
   (B.B.A.). Described in detail below.

4. Major in Economics for Management Studies: program of six full credits of Economics for Management Studies, one half-credit in Mathematics and one in Humanities, consistent with a twenty-credit degree (B.A.). Described in detail below.


Other Programs with a substantial component of Economics for Management Studies:

6. 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. degree. Students may elect to take additional specified courses in Economics for Management Studies to qualify for designation within the Economic Data Analysis stream. Described in detail in the Management section of this Calendar.

7. Specialist (Co-op) in Management (B.B.A.) - same as 6 above, but also includes Co-op work terms.

8. Specialist (Co-operative) or Major in International Development Studies or Major (Co-operative) in Public Policy or Major (Co-operative) in International Studies or Major (Co-operative) 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, even those who have been directly admitted into the Department from high school (and who are guaranteed admission into programs in the Department), must formally apply to specific programs after four courses 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 requests which students submit to the Registrar (see the registration guide which is provided by the Registrar). Only transfer students are considered at other times. Students should have ten credits or less when they seek admission to programs in the Department of Management. Note that enrollment in ECOM20H1, ECOM20H6, ECOM23H1, and ECOM60H8 will be strictly limited to students enrolled in Specialist or Major programs in the Department of Management and other students who meet criteria of academic merit.

2. These 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 GPA 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 thus will be accommodated only after other program students have been admitted to these courses. Thus, some 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 Management Department will experience difficulty in gaining access to enough courses to complete an Economics for Management Studies program.
Program Requirements

1. 8.5 full-credit equivalents in Economics for Management Studies including: ECON404H1, ECON405H1, ECON406H1, [ECON391H & ECON392H or ECON394H], ECON422H, ECON424H, ECON428H, ECON429H, ECON431H, ECON432H, ECON433H, ECON434H, ECON435H, ECON436H, ECON437H, and ECON438H; two additional FCEs in Economics for Management Studies including at least one at the C-level.

2. CSCA10H1 and MAT127H1

3. MGTA13H3, MGTA24H3, MGTA243H3, MGTA243H3, MGTA243H3, MGTA243H3, MGTA243H3, MGTA243H3, and 0.5 FCE from the strategic management options as described in the B.A. Program in the Management section of this Calendar.

4. At least 1.0 FCE from courses within the Department of Humanities.

SPECIALIST PROGRAM IN POLITICAL SCIENCE AND ECONOMICS FOR MANAGEMENT STUDIES (B.A.)

Supervisor of Students: J. Parkinson. E-mail: economics-supervisor-studies@utsc.utoronto.ca

Program Admission

Note: Registration in this Program is limited.

Students must have completed a minimum of four credits to be considered for this Program. Students with between 4-10 credits will be considered on the basis of GPA and completion of one FCE (full-credit equivalent) in Economics at the introductory level. 

Program Requirements

Six full-credit equivalents are required in each of the two disciplines, as specified below. Students must also complete at least four full-credit equivalents in disciplines other than Political Science & Economics for Management Studies.

Required Courses in Economics for Management Studies

Six full-credit equivalents, made up of the following:

- ECON204H1 or ECON205H1
- ECON211H1 or ECON212H1
- ECON220H1 or ECON221H1
- ECON231H1 and ECON232H1
- ECON256H1 or ECON257H1 or ECON258H1 or ECON259H1 or ECON260H1 or ECON261H1
- ECON274H1 or ECON275H1
- ECON284H1 or ECON285H1 or ECON286H1 or ECON287H1 or ECON288H1 or ECON289H1

Two more FCEs in ECO, including at least one at the C-level.

Required Courses in Political Science

Six full-credit equivalents, including the following:

- POLA1H1 or [POLB07H1 & POLB08H1]
- and
- [POLB09H1 & POLB10H1]

One FCE from each of any three of the following fields:

a) Canadian Government: POLB01H1 and POLB02H1, POLC03H1, POLC04H1, POLC05H1, POLC06H1, POLC07H1, POLC08H1, POLC09H1, POLC10H1, POLC11H1
b) Public Administration and Public Policy: POLC03H1, POLC04H1, POLC05H1, POLC06H1, POLC07H1, POLC08H1, POLC09H1, POLC10H1, POLC11H1
c) International Relations: POLA01H1, POLA02H1, POLA03H1, POLA04H1, POLA05H1, POLA06H1, POLA07H1, POLA08H1, POLA09H1, POLA10H1, POLA11H1, POLA12H1, POLA13H1, POLA14H1

Note: No more than two courses at the A-level may be counted toward program requirements. If POLB01H1 or POLB02H1 are used to satisfy the first requirement POLA01H1 or [POLB07H1 & POLB08H1] above, then they may not also be used to satisfy the Canadian Government fields requirement.
**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 illustrate economic analysis.

Exclusion: (ECMA02Y), (ECMA03Y), (ECMA04H), (ECMA06H), (ECO100Y)

**ECMA04H3 Introduction to Macroeconomics: 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 Students, and the Major Program in Economics for Management Students.

Exclusion: ECMA01H, (ECMA02Y), (ECMA03Y), (ECMA05H) & (ECO100Y)

Prerequisite: Grade 12 or OCC Calculus Corequisite: MATA27H (or equivalent) must be completed before students will be admitted to courses requiring this course as a prerequisite.

**ECMA05H3 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 BBA.

Limited enrolment: 80 per section

Exclusion: ECMB02H, (ECMB03Y), (ECMB04Y), ECZ002Y, ECZ006Y

Prerequisite: [ECMA04H & ECMA05H] or [ECMA02Y] or [ECMA01H & ECMA05H] or [ECMA03Y]

**ECMB02H3 Price Theory: A Mathematical Approach**

Intermediate level development of the principles of microeconomic theory. The course will cover the same topics as ECMB01H, but will employ techniques involving calculus so as to make the theory clearer to students. Enrolment is limited to students registered in programs requiring this course.

Limited enrolment: 80 per section

Exclusion: ECMB01H, (ECMB02Y), (ECMB04Y), ECZ002Y, ECZ006Y

Prerequisite: [ECMA04H & ECMA05H] or [ECMA02Y] & [MATA27H] - students who have completed [ECMA01H & ECMA05H] or [ECMA03Y] & [MATA27H] may be admitted with the permission of the Supervisor of Studies.

**ECMB05Y3 Quantitative Methods in Economics**

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, hypothesis testing, simple and multiple regression. Enrolment is limited to students registered in programs requiring this course.

Exclusion: ECMB11H, ECMB12H, (ECGB31H), (ANTC33H), (AGTH16H), (ECZ028Y), ECZ022Y, PSYB07H, SOC086H, STAR02H, STAR04H, STAR05H, STAR07H, STAC06H

Prerequisite: [ECMA04H & ECMA05H] or [ECMA02Y] & [MATA27H] - students who have completed [ECMA01H & ECMA05H] or [ECMA03Y] & [MATA27H] may be admitted with the permission of the Supervisor of Studies.

**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. Enrolment is limited to students registered in programs requiring this course.

Limited enrolment: 80 per section

Exclusion: ECMB01Y, ANTC33H, MCSTH18H, ECZ022Y, ECZ027Y, (ECGB31H), PSYB07H, SOC086H, STAR02H, (STAR04H), STAR05H, STAR07H

Prerequisite: [ECMA04H & ECMA05H] or [ECMA02Y] & [MATA27H] and MATA27H may be admitted with the permission of the Supervisor of Studies.

**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. Enrolment is limited to students registered in programs requiring this course.

Limited enrolment: 80 per section

Exclusion: ECMB01Y, ANTC33H, ECZ020Y, ECZ022Y, (ECGB31H), PSYB07H, SOC086H, STAR02H, STAR05H, STAR07H

Prerequisite: [ECMB11H & ECMA05H] or [ECMA02Y] & [MATA27H] - students who have completed [ECMA01H & ECMA05H] or [ECMA03Y] & [MATA27H] may be admitted with the permission of the Supervisor of Studies.

**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.

Limited enrolment: 60

Exclusion: (ECZ003H)

Prerequisite: [ECMA04H & ECMA05H] or [ECMA02Y] or [ECMA01H & ECMA05H] or [ECMA03Y]

**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...
ECMC203H3 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. Limited enrolment: 60.
Exclusion: (ECOC201H)
Prerequisite: ECMB01H or ECMB02H or ECMB03Y

ECMC237H3 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 so as to maximize economic efficiency. The efficiency of various legal principles is examined. Topics covered are drawn from: expropriation, property rights, environmental law, contracts, torts, product liability, and consumer protection, criminal law, and procedure. Limited enrolment: 60.
Exclusion: ECOC320H, ECO320Y, (ECOC379H)
Prerequisite: ECMB01H or ECMB02H or ECMB03Y or (ECOM40Y)

ECMC389H3 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. Limited enrolment: 60.
Prerequisite: (ECMB01H or ECMB02H) or (ECMB03Y) or (ECMB04Y)
ECM4813 Economics of Organization and Management
Covers economics of the internal organization of the firm. Emphasis will be on economic relationships between various parties involved in running a business: managers, shareholders, workers, banks, and government.
Topics include the role of organizations in market economies, contractual theory, risk sharing, property rights, corporate finance, and vertical integration.
Limited enrolment: 60
Exclusion: ECO301Y, (ECOC401H)
Prerequisites: EMB201H or EMB202H or (ECMB301Y) or (ECMB302Y)

ECM4143H Industrial Organization
The economics of the firm in a market environment. The aim is to study business behaviour and market performance as influenced by concentration, entry barriers, product differentiation, diversification, research and development, and international trade. There will be some limited use of calculus in this course.
Limited enrolment: 40
Exclusion: ECO301Y, (ECOC411H)
Prerequisites: EMB202H or (ECMB301Y) or (ECMB302Y)

ECMC4931H The Economics of the Internet and E-Commerce
The interest is radically changing communications, access to information, and commerce. This course will explore key issues associated with the development of the Internet and E-commerce, including business strategy, pricing, intellectual property rights, government regulation and taxation. Students are advised that there is a substantial amount of reading required for this course.
Limited enrolment: 40
Prerequisites: EMB201H or EMB202H or (ECMB301Y) or (ECMB302Y)

ECMC4813H Money and Banking
An introduction to the role of banking institutions in the economy. There will be a focus on basic economic theory underlying financial intermediation. Specifically, the interaction of the bank of Canada, the chartered banks, trust companies, credit unions and households in the credit and financial services market will be considered.
Limited enrolment: 60 per section
Exclusion: ECO3481H
Prerequisites: EMB201H or EMB202H or (ECMB301Y) or (ECMB302Y)

ECMC4843H Financial Economics
This course introduces students to the theoretical underpinnings of financial economics. Topics covered include: intertemporal choice, expected utility, the CAPM, cost of capital, use of debt by the firm and dividend policy, market efficiency, the term structure of interest rates, and option pricing models. Key empirical tests are also reviewed.
Limited enrolment: 60
Exclusion: (ECMC4931H), ECO3081H
Prerequisites: [ECMB202H or (ECMB201Y)] & [ECMB301Y or (ECMB302Y)]

ECMC531YH Labour Economics I
Applications of the tools of microeconomics to various labour market issues. The topics covered will include: fertility, 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.
Limited enrolment: 60
Exclusion: ECO203Y, ECO301Y, (ECOC311H)
Prerequisites: EMB201H or (ECMB301Y) or (ECMB302Y)

ECMC5351H Labour Economics II
A continuation of ECMC511H. Topics covered will include: unions; wage structures and race discrimination; human capital theory; investment in education. Policy issues discussed will include: pay equity; affirmative action; training initiatives; migration.
Limited enrolment: 60
Exclusion: ECO203Y, ECO301Y, (ECOC321H)
Prerequisites: ECMC511H & (ECMB201H or (ECMB201Y) & (ECMB301Y)

ECMC5613H International Economics: Finance
Macroeconomic theories of the balance of payments and the exchange rate in a small open economy. Recent theories of exchange-rate determination in a world of floating exchange rates. The international monetary system: fixed versus flexible exchange rates; international capital movements, and their implications for monetary policy.
Limited enrolment: 60
Exclusion: ECO328Y, (ECOC311H)
Prerequisites: EMB201H or EMB202H or (ECMB301Y) or (ECMB302Y)

ECM6243H 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.
Limited enrolment: 60
Exclusion: ECO328Y, (ECOC321H)
Prerequisites: EMB201H or EMB202H or (ECMB301Y) or (ECMB302Y)

ECMC6331H 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 1980s; East Asia, Europe, Mexico and Russia in the 1990s, and Turkey and Argentina in recent years.
Limited enrolment: 60
Prerequisites: EMB201H

ECMC6361H 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 low-income environment.
Limited enrolment: 60
Exclusion: ECO324Y, (DISC506H)
Prerequisites: EMB201H or EMB202H or (ECMB301Y) or (ECMB302Y)

ECMC6373H Development Policy
A consideration of how government policy can affect the pace 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.
Limited enrolment: 60
Exclusion: ECO203Y, (DISC507H)
Prerequisites: EMB201H

ECMC6383H 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.
Limited enrolment: 60 per section
Exclusion: ECO212Y
Prerequisites: EMB201H or EMB202H or (ECMB301Y) or (ECMB302Y)

ECMD111H3 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 term. Students must obtain consent from the supervising instructor and the Supervisor of Studies before registering for this course.
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 with the Supervisor of Studies or the Discipline Representative before taking courses on other campuses.

Students planning to pursue graduate studies in English are advised to consult the Supervisor of Studies about appropriate programs of study.

The English Study Guide is available at:
http://www.unc.utoronto.ca/englishstudyguide/index.htm

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
Supervisor of Studies: Russell Brown (416-287-7166), Email: r.brown@chas.utoronto.ca

Program Requirements

Eleven full credits in English are required. They should be selected as follows:

1. ENG1B0H Critical Writing About Poetry
2. ENG1B02H Critical Writing About Narrative
3. ENG2B03H Critical Thinking About Narrative
4. ENG2B04H Critical Thinking About Poetry
5. 2.5 credits from courses whose content is pre-1900
6. At least one half credit in Canadian literature
7. 6.0 additional credits in English

Among the eleven full credits required for the Specialist as outlined above, at least three full credits must be at the C-level and one full credit at the D-level.

Note: Students may count no more than one of the following courses towards the Specialist requirements:

ENG1B01H Children’s Literature
ENG1B02H Detective Fiction
ENG1B03H Science Fiction

The following course cannot be counted towards the Specialist requirements:

ENG1B00H Effective Writing

MAJOR PROGRAM IN ENGLISH
Supervisor of Studies: Russell Brown (416-287-7166), Email: r.brown@chas.utoronto.ca

Program Requirements

Eight full credits in English are required. They should be selected as follows:

1. ENG1B01H Critical Writing About Poetry
2. ENG1B02H Critical Writing About Narrative
3. ENG1B03H Critical Thinking About Narrative
4. ENG1B04H Critical Thinking About Poetry
5. 2.0 credits from courses whose content is pre-1900
6. 4.0 additional credits in English

Among the eight full credits required for the Major as outlined above, at least two full credits must be at the C- or D-level.

NOTE: Students may count no more than one of the following courses towards the Major requirements:

ENG1B01H Children’s Literature
ENG1B02H Detective Fiction
ENG1B03H Science Fiction

The following course cannot be counted towards the Major requirements:

ENG1B00H Effective Writing
ENGA1H3 Introduction to Literary Study: 1900 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 analyse the writing of early twentieth-century men and women.
Exclusion: ENGV40Y, ENGA11Y

ENGA1H3 Introduction to Literary Study: 1945 to Today
An exploration of how literature reflects the artistic and cultural concerns that shaped the world after the Second World War. An introduction to university-level critical reading and interpretation, this course will analyse the writing of late twentieth-century men and women from a range of backgrounds and nationalities.
Exclusion: ENGV40Y, ENGA11Y

ENGB05H3 Critical Writing about Poetry
Intensive training in critical writing about poetry. Essay-writing skills (organization and argumentation, tone and voice, bibliographic style) for the study of English at the university level. Through group workshops and weekly writing assignments that culminate in two term papers, students will learn how to write critically and analytically about poetry.
Exclusion: ENGB01H, ENG210H, ENGB55Y
Corequisite: ENGB05H

ENGB06H3 Critical Writing about Narrative
Intensive training in critical writing about narrative. Essay-writing skills (essay form and style, research techniques, secondary resources) for the study of English at the university level. Through group workshops and weekly writing assignments, students will analyze narrative texts written in two term papers. Assignments, coordinated with ENGB01H, reflect authors and topics studied there.
Exclusion: ENGB12H, ENG269Y
Corequisite: ENGB06H

ENGB07H3 Nation in Canadian Writing
An examination of the formation of identity, of a sense of belonging, and of the problematic of nationhood in Canadian writing.
Exclusion: ENGB07Y, ENG252Y

ENGB08H3 Collisions of Culture and the Emergence of a Liberal Nation
An examination of Early American literature in historical context from colonization to the Civil War. This introductory survey places a wide variety of genres—including exhortatory 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: ENGB08Y, ENG250Y, ENG355Y

ENGB09H3 American Literature from the Civil War to the Present
An introductory survey of major novels, short fiction, poetry, and drama. An introduction to major novels, short fiction, poetry, and drama from The Adventures of Huckleberry Finn to Zora Neale Hurston, with an emphasis on themes of immigration, ethnicity, modernization, individualism, class, and community.
Exclusion: ENGB08Y, ENG358Y

ENGB10H3 Introduction to Shakespeare
An introduction to Shakespeare's comedies and tragedies. Through the study of A Midsummer Night's Dream, Twelfth Night, As You Like It, Hamlet, Macbeth, Antony and Cleopatra, Othello, The Tempest and Romeo and Juliet, this course provides an introduction to the Elizabethan playhouse, the acting companies, and the development of drama.
Pre-1900 course
Exclusion: ENGB10Y, ENG220Y

ENGB11H3 The Beginnings of Modern Drama
A reading of plays from 1879 to the 1930s and after. Taking Ibsen's A Doll's House as the starting point, the course looks at dramas by Pirandello, Shaw, Wilde, and other authors - such as David Belasco, Stanley Houghton, John Galsworthy, Eugene O'Neill and Terence Rattigan.
Exclusion: ENGB11Y, ENG338Y

ENGB13H3 Drama after 1960
An exploration of drama in English since 1960. Authors studied will include playwrights such as Harold Pinter, Brian Friel, Caryl Churchill, August Wilson, Timberlake Wertenbaker, Tom Stoppard, Athol Fugard, David Hwang, Sam Shepard, Beth Henley, and others.
Exclusion: ENGB11Y, ENG339H

ENGB17H3 Contemporary Literature from the Caribbean
A study of fiction, drama, and poetry from the West Indies. The course will examine the relation of standard English to the spoken language; the problem of narrating a history of slavery and colonialism; the issues of race, gender, and nation; and the task of making West Indian literary forms.
Exclusion: ENGB23Y, ENGB233Y, ENG223Y

ENGB19H3 Contemporary Literature from South Asia
A study of literature in English from South Asia, with emphasis on fiction from India. The course will examine the relation of English-language writing to indigenous South Asian traditions, the problem of narrating a history of colonialism and Partition, and the task of making the novel South Asian.
Exclusion: ENGB23Y, ENGB233Y

ENGB24H3 Courtship in Literature
A variety of literary works that portray courtship. An examination of the treatment of courtship in literature and the way it has been affected by shifts in gender definition and in the nature of the family. We will consider the larger issues and archetypes that courtship literature addresses or responds to.
ENG251H3 The Canadian Short Story
A study of the Canadian short story. The Canadian short story has been vital in the Canadian literary tradition and has produced writers of international stature, including Margaret Atwood, Lawrence, and Gallant.
Exclusion: ENG215H1

ENG344H3 The Short Story
An introduction to the short story as a literary form. This course examines the origins and recent developments of the short story, its special appeal for writers and readers, and the particular effects it is able to produce.
Exclusion: ENG231H3

ENG353H3 Children's Literature
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 national identity.
Exclusion: ENG234H1

ENG363H3 Detective Fiction
A study of the evolution and forms of detective fiction. This course examines the formal rules that govern detective fiction - a majority of mass media and a genre that has influenced literature - and the social contexts that made this a genre that has cut across classes, cultures, and continents.
Exclusion: ENG235H1

ENG413H3 Science Fiction
An examination of the genre of science fiction. This course will look at different forms of this genre (novels, short stories, and films), emphasizing the way a popular genre comes into being, the effects on the form of innovation, and the interaction that exists between science fiction and literary writing.
Exclusion: ENG236H1

ENG423H3 The Bible and Literature I
Literary analysis of the first five books of the Bible and consideration of their 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.
Exclusions: ENG424H1, ENG424Y

ENG424H3 The Bible and Literature II
Literary analysis of the poems, narratives, and other literary forms in later Hebrew Scriptures (such as The Song of Solomon, Job, Jonah, Jeremiah) and the New Testament, and extended consideration of selected literary texts. Texts from English literature such as Melville's Billy Budd and Milton's Paradise Lost (selections) will be included.
Pre-1900 course
Recommended preparation: ENG423H
Exclusion: ENG420H1, ENG424Y

ENG446H3 Victorian Theatres and Music Halls
A study of mid-19th-century nineteenth century British drama and theatre. An interdisciplinary course. Some on FPDB145H
Pre-1900 course
Exclusion: VFT3Y

ENG456H3 Women and Literature: Forging a Tradition
An examination of the development of a women's tradition of writing. This course considers the legacy and impact of writers such as Mary Wollstonecraft, Mary Shelley, Jane Austen, C. Bronte, and Virginia Woolf.
Exclusion: ENG451Y1, ENG453H1

ENG513H3 Gender and Genre
An analysis of the role of gender in fiction, poetry, and drama. This course will examine such things as the genders women have gravitated toward and excelled at in the light of Woolf's claim that the novel was the genre most accessible to women because it was not entirely formed.
Exclusion: ENG515Y

ENG560H3 Creative Writing: Poetry
An introduction to the writing of poetry. This course will provide an introduction to the writing of poetry through workshop sessions. Admission by portfolio (consult the Supervisor of Studies for details).
Exclusion: ENG560Y1, ENG569Y

ENG561H3 Creative Writing: Fiction
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 (consult the Supervisor of Studies for details).
Exclusion: ENG560Y1, ENG569Y

ENG564H3 Native North American Literature
An introduction to Native North American writing with an emphasis on First Nations literature and culture of the last 30 years. Dealing with the literatures of a broad range of peoples and a wide variety of genres and styles, students will explore such issues as identity, representation, transmission, and translation.
Exclusion: ENG525H1

ENG575H3 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.

ENG576H3 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: ENG528H1

ENG592H3 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. Limited enrolment: 50
Exclusion: ENG592Y2
Prerequisite: [ENG420H1 & ENG421H & ENG423H & ENG424H] or [ENG450Y1 or ENG450H1]

ENG593H3 Studies 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 questions of the local, of social rupture and historical trauma, and of the problematics of representation for marginalized societies, groups, and identities.
Limited enrolment: 50
Exclusion: ENG593Y2
Prerequisite: [ENG420H1 & ENG421H & ENG423H & ENG424H] or [ENG450H1]

ENG610H3 Studies in Shakespeare
Four chronicle history plays, and three "historical" tragedies of Shakespeare. Through study of Marlowe's Edward II, and Shakespeare's Henry VI part iii, Richard III, Richard II, Julius Caesar, King Lear and Antony and Cleopatra, this course explores the Elizabethan and Jacobean preoccupation with history in the political and social contexts of the time.
Pre-1900 course
Limited enrolment: 50
Exclusion: ENG610Y3, ENG620Y3
Prerequisite: [ENG610H1 & ENG620H1 & ENG620H1 & ENG620H1 or [ENG620H1]

ENG612H3 Individualism and Community in Classic American Literature
An exploration of the tension in American literature between two conflicting concepts of self. You 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.
Limited enrolment: 50
Exclusion: ENG612Y3
Prerequisite: ENG610H1 & ENG620H1 & ENG620H1 & ENG620H1

ENG615H3 Studies in Canadian Fiction
A study of Canadian fiction with regard to the problems of representation. Topics considered may include how Canadian fiction writers have responded to and documented questions of the local, of social rupture and historical trauma, and of the problematics of representation for marginalized societies, groups, and identities.
Limited enrolment: 50
Exclusion: ENG615Y2
Prerequisite: [ENG610H1 & ENG620H1 & ENG620H1 & ENG620H1] or [ENG620H1]
ENGC1H3H Ethnic Traditions in American Literature
A survey of the literature of Native Peoples, Africans, Irish, Jews, Italians, and East Asians in the U.S., focusing on one or two groups each term. We will focus on how writers of each group register the affective costs of the transition from "old-world" communalism to "new-world" individualism. Limited enrolment: 50
Prerequisite: [ENG101H] or [ENG102H] or [ENG105H] or [ENG106H] or [ENG109H].

ENGC1H5H Concepts in Literary History
A study of the concepts and methodologies of literary history. This introduction to the development and practice of literary history since the Renaissance will consider artistic and intellectual currents; the concepts and difficulties of periodization; the political, social, and cultural imperatives of literary canonization; and the history of English as a discipline.
Limited enrolment: 50
Prerequisite: ENG101H & ENG102H & ENG105H & ENG109H.

ENGC1H5H Concepts in Literary Criticism
A study of selected topics in literary criticism.
Limited enrolment: 50
Exclusion: ENG279Y
Prerequisite: ENG101H & ENG102H & ENG105H & ENG109H.

ENGC2H3H Victorian Poetry and Prose, 1830-1890
Poetry and nonfiction prose of the Victorian period. An examination of authors such as Tennyson, the Brownings, the Rossettis, Macaulay, Carlyle, Mill, Ruskin, Arnold, Morris, Peter, and Wilde. and of a culture in transition: the Condition of England, the Woman Question; liberty and equality; imperialism and nationalism; theology and science; aestheticism and decadence. Pre-1900 course.
Limited enrolment: 50
Exclusion: ENG230Y
Prerequisite: ENG101H & ENG102H & ENG105H & ENG109H.

ENGC2H3H The Victorian Novel to 1860
A study of major works of Victorian fiction, 1830-1860. This course focuses on the development of the novelist novel in its social context. Authors studied might include: Charles Dickens, William Makepeace Thackeray, the Bronte sisters, Anthony Trollope, and Elizabeth Gaskell.
Pre-1900 course.
Limited enrolment: 50
Exclusion: ENG230Y, ENG324Y
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.

ENGC2H3H The Victorian Novel after 1860
A study of major works of Victorian fiction, 1860-1900. This course examines the emergence of the sensation novel, fantasy literature, and high Victorian realism. Authors studied might include: Wilkie Collins, Lewis Carroll, George Eliot, Thomas Hardy, George Gissing, and Rudyard Kipling.
Pre-1900 course.
Limited enrolment: 50
Exclusion: [ENG230Y], ENG324Y
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.

ENGC2H6H Drama: Tragedy
An exploration of major tragic themes in the classics and English tradition. Tragedy has been thought of as one of the earliest and most profound literary forms, having ritual and philosophical implications and inspiring theoretical treatises beginning with Aristotle's Poetics.
Limited enrolment: 50
Exclusion: ENG242Y
Prerequisite: ENG103H & ENG102H & ENG103H & ENG104H.

ENGC2H7H Drama: Comedy
An exploration of comedy as a major form of dramatic expression. Theatrical comedy has been thought of as having social as well as literary dimensions (healing rills; providing carnivalesque escape; mocking folly).
Limited enrolment: 50
Exclusion: ENG121Y
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.
Alternative pre/co-requisite: VPD10H & VPD11H.

ENGC2H9H 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 settings, with subject matter that ranges from broad and bawdy humour through subtle social satire to moral fable.
Pre-1900 course.
Limited enrolment: 50
Exclusion: ENG300Y
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.

ENGC3H9H Topics in Medieval Literature
A study of selected medieval texts by one or more authors.
Pre-1900 course.
Limited enrolment: 50
Exclusion: ENG330Y
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.

ENGC3H9H The Romances: In Quest of the Marvelous
A study of the romance as genre. The romance as epistolary 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 Walter Scott and the Brontës to post-modern writers such as Pynchon.
Limited enrolment: 50
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.

ENGC3H9H The Golden Age: Elizabethan Literature
Prose, poetry and drama from the Age of Queen Elizabeth. Texts include More's Utopia, Sidney's Defence of Poesie, Spenser's The Faerie Queene, Book II and Moxonshire Canto's, Shakespeare's Love's Labour's Lost and The Merchant of Venice, and Lyly's Gallion. Plays selections from such authors as Marston, Greene, Hacket, Wyatt, Surrey, and Drayton.
Pre-1900 course.
Limited enrolment: 50
Exclusion: ENG332Y, ENG330Y
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.

ENGC3H9H Literature of Decadence and Dissent: 1603-1660
A reading of literature from the early Stuart period of political and intellectual turmoil. Core authors include Bacon, Donne, Milton, as well as drama by Webster, Jonson, Vasslager and Ford. Texts include selections from Bacon, Essay and Novum Organum; Browne, Religio Medicæ; Andromède, Sermou; poetry of Herbert, Vaughan, Quarles and Mervell.
Pre-1900 course.
Limited enrolment: 50
Exclusion: ENG332Y, ENG330Y
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.

ENGC3H9H Literature and Culture 1660-1750
Studies in literature and literary culture during a turbulent era that was marked by extraordinary cultural ferment and literary experimentation. During this period satire and polemic flourished. Milton wrote his great epic, Behn her brilliant comedies, Swift his bitter attacks, and Pope his technically balanced but often viciously biased poetry.
Pre-1900 course.
Limited enrolment: 50
Exclusion: ENG330Y, ENG334Y
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.

ENGC3H9H Literature and Culture 1750-1830
An exploration of literature and literary culture during the end of the eighteenth and beginning of the nineteenth centuries. We will trace the development of a consciously national culture, and both of the concepts of high, middle, and low cultures. Authors may include Johnson, Boswell, Burney, Sheridan, Yeatsley, Blake, and Wordsworth.
Pre-1900 course.
Limited enrolment: 50
Exclusion: ENG337Y, ENG330Y
Prerequisite: ENG101H & ENG102H & ENG103H & ENG104H.
ENGC459H3 Early Nineteenth Century British Theatre: From Sheridan to Boolemen
A study of theatre and drama in Britain from the late eighteenth century through the early nineteenth century. An interdisciplinary course. Same as VPD165H1.
Exclusion: VPC134Y, VPC160H1
Prerequisite: [ENG100H1 & ENG100H2] or [ENG500H1 & ENG500H2]

ENGC242H1 Romanticism
A study of the Romantic movement in European literature, 1750-1850. This course investigates the cultural and historical origins of the Romantic movement, in complex definitions and varieties of expression, and the responses it provoked in the wider culture. Examination of representative authors such as Goethe, Rousseau, Wordsworth, Coleridge, Blake, P. B. Shelley, Keats, Byron, and M. Shelley will be combined with study of the philosophical and historical backgrounds of Romanticism.
Exclusion: [ENG342Y, ENG308Y]
Prerequisite: [ENG100H1 & ENG100H2] & [ENG500H1 & ENG500H2]

ENGC593H3 The American Renaissance
Study of the works of the remarkable literary self-consciousness in the U.S. running from the pre-publication of Emerson's "Nature" in 1836 to the outbreak of the Civil War in 1860. Authors to be considered include Emerson, Thoreau, Whitman, Melville, Hawthorne, Dickinson, Staue, Douglass, Lincoln.
Exclusion: [ENG500H1 & ENG500H2]
Prerequisite: [ENG100H1 & ENG100H2] or [ENG500H1 & ENG500H2]

ENGC459H3 Early Nineteenth Century British Theatre: From Sheridan to Boolemen
A study of theatre and drama in Britain from the late eighteenth century through the early nineteenth century. An interdisciplinary course. Same as VPD165H1.
Exclusion: VPC134Y, VPC160H1
Prerequisite: [ENG100H1 & ENG100H2] or [ENG500H1 & ENG500H2] or permission of instructor.

ENGC474H1 Modern Poetry
A study of literary poetry written roughly between the World Wars. Poets from several nations may be considered. Topics to be treated include Modernist, 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.
Exclusion: [ENG500H1 & ENG500H2]
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]

ENGC459H3 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, reenactment, adaptation, serialization, and conflation).
Exclusion: [ENG500H1 & ENG500H2]
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]

ENGC593H3 The West in American Literature
The "West" as myth and metaphor in the shaping of American identity. An examination of written narratives and films will focus on the construction of the American West, the relationship of the "Indian" to Native writers, and contemporary efforts to de-romanticize the West.
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]

ENGC593H3 Mythic Backgrounds to Literature: The Hero
The mythic hero in literature. Beginning with examples of the hero in The Epic of Gilgamesh, The Odyssey, and the Arthurian cycle, this course examines the idea of the epic and the romance hero in English literary works such as Sir Gawain and the Green Knight, Book III of The Faerie Queene, and Henry V.
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]

ENGC593H3 Mythic Backgrounds to Literature: The Gods and Humanity
An analysis of the relationship between myth and literature. Drawing on early texts by Sophocles, Herodotus, and Herodotus, this course examines the myths of gods and their relationships with human beings as used by writers such as Virgil, Ovid, and Dybb and in the theories of Freud, Jung, Frazer, and Frye.
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]
Exclusion: [ENG500H1 & ENG500H2]
Prerequisite: [ENG500H1 & ENG500H2]

ENGC593H3 Restorations and Eighteenth-Century Theatre, Spectacle, and Drama
A study of the relationships between drama, theatre, and public spectacle in the Restoration and eighteenth century. This period saw the introduction of women onto the stage, theatrical coronations, executions as public spectacles, freak shows, and brilliant comedy. We will address the culture of spectacle and the dramatic works that emerged.
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]

ENGC593H3 Studies in Travel Literature before 1830
An examination of the genre of travel literature before 1830. Focus topics may change yearly and will include: travel literature by women of other marginalized groups such as servants and slaves; exploration literature; literature of imperial or colonial travel; travel literature by women; pilgrimage; exotic literary travel.
Exclusion: [ENG500H1 & ENG500H2]
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]

ENGC459H3 Independent Studies: Creative Writing
An opportunity for students who have excelled in introductory creative writing to pursue independent study.
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]
Exclusion: [ENG500H1 & ENG500H2] or [ENG500H1 & ENG500H2]
ENG687H3 Gothic Literature
A study of the Gothic tradition in literature since 1762. "Gothic" is a dark style in the arts, a language of terror, recognizable by allusions to ruined castles, graveyards, sublime landscapes, religious superstition, and plots involving imprisonment and torture, nightmares of the unconscious mind, and monstrous deformities of the human form.
Limited enrolment: 50
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG707H3 The Immigrant Experience to 1860
An examination of twentieth-century literature, especially fiction, written out of the experience of people who have one society to come to another already made by others. We will compose the literatures of several ethnic communities in at least three nations, the United States, Britain, and Canada.
Limited enrolment: 50
Exclusion: (ENG737Y)
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG717H3 The Immigrant Experience in Literature since 1860
A continuation of ENG707H1, focusing on texts written since 1860.
Limited enrolment: 50
Exclusion: (ENG737Y)
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG727H3 Contemporary Literature from Sub-Saharan 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 society, and to audiences, as well as the issues of creating art in a world of suffering and de-colonizing the narrative of history.
Limited enrolment: 50
Exclusion: ENG253Y, (ENGB131H1), (ENGB23Y)

ENG747H3 Comedy, Satire, and Humour, 1650-1850
A study of literary works meant to provoke laughter, ridicule, or amusement. We will examine works emerging from a culture that had yet to equate forms that induced laughter with levity and that therefore seriously played in the man's land between pain and horror and between pleasure and delight.
Pre-1900 course
Limited enrolment: 50
Exclusion: (ENG337Y)
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG787B0 The Body: Theories and Representations, Part One
An interdisciplinary course about the body as art, film, photography, narrative and popular culture. How bodies are written or visualized as 'feminine' or 'masculine' as heroic, as representing normality or perversion, beauty or monstrosity, legitimacy or illegitimacy, nature or culture. Some as "femme" or "masculine" as heroic, as representing normality or perversion, beauty or monstrosity, legitimacy or illegitimacy, nature or culture. Some as "femme" or "masculine" as heroic, as representing normality or perversion, beauty or monstrosity, legitimacy or illegitimacy, nature or culture.
Limited enrolment: 45
Exclusion: (VPAB01H1), VPHC47H1
Consequent: Two full credits from ENG801H1, ENG802H1, ENG803H1, ENG804H1, ENG801Y1, ENG802Y1, (VPAA41H1), (VPAA44H1), (VPAA45H1), (VPAA47H1), (VPAA49H1), (VPAA51H1), (VPAA53H1), (VPAA56H1), (VPAA58H1), (VPAA61H1), (VPAA63H1), (VPAA65H1), (VPAA67H1), (VPAA69H1), (VPAA71H1), (VPAA73H1), (VPAA75H1), (VPAA77H1), (VPAA81H1), (VPAA83H1), (VPAA85H1), (VPAA87H1), (VPAA89H1), (VPAA91H1), (VPAA93H1), (VPAA95H1), (VPAA97H1), (VPAA99H1), or permission of the instructors

ENG797H3 The Body: Theories and Representations, Part Two
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. Some as "femme" or "masculine" as heroic, as representing normality or perversion, beauty or monstrosity, legitimacy or illegitimacy, nature or culture. Some as "femme" or "masculine" as heroic, as representing normality or perversion, beauty or monstrosity, legitimacy or illegitimacy, nature or culture.
Exclusion: (VPIC48H1)
Consequent: Two full credits from ENG801H1, ENG802H1, ENG803H1, ENG804H1, ENG801Y1, ENG802Y1, (VPAA41H1), (VPAA44H1), (VPAA45H1), (VPAA47H1), (VPAA49H1), (VPAA51H1), (VPAA53H1), (VPAA56H1), (VPAA58H1), (VPAA61H1), (VPAA63H1), (VPAA65H1), (VPAA67H1), (VPAA69H1), (VPAA71H1), (VPAA73H1), (VPAA75H1), (VPAA77H1), (VPAA81H1), (VPAA83H1), (VPAA85H1), (VPAA87H1), (VPAA89H1), (VPAA91H1), (VPAA93H1), (VPAA95H1), (VPAA97H1), (VPAA99H1), or permission of the instructors

ENG878H3 Dystopian Visions in Fiction and Film
Negative utopias and post-apocalyptic works. The course will draw from novels such as 1984, Brave New World, Clockwork Orange, and Onys and Croake, and films such as Metropolis, Mad Max, Brazil, or The Matrix. Why do we find stories about the world going wrong so compelling?
Limited enrolment: 50
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG879B0 Utopian Literature: Ideal Worlds and Their Limitations
The joys and perils of perfect worlds. Texts might include Plato's Republic, Thomas More's Utopia, James de Milie's Strange Mr. in a Copper Cylinder, Charlotte Perkins Gilman's Herland, and William Gibson's Count Zero. At least one negative utopia such as The Handmaid's Tale may be considered.
Limited enrolment: 50
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG880H2 Modernity: Modernism and Literature 1900-1950
The aesthetic movements (dadaism, futurism, vorticism, surrealism) that gave rise to modernity and the modernist literary movements that followed.
Limited enrolment: 50
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG881H3 Modernity II: Post-modernism and Other Developments in Literature 1950 to the Present
Reactions to modernity and modernism since 1950. This course investigates the various ways writers of the later twentieth century began to understand "reality" and how that shaped their writing. We will look at how post-colonialism, post-structuralism, multiculturalism, and feminism emerged in this era to contest the "centre" constructed the "margin".
Limited enrolment: 50
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG893H3 Cinema Studies: Themes and Theories
A variable theme course that will examine different theoretical approaches to Cinema: feminism, marxism, psychoanalysis, postcolonial, and structuralist. Thematic clusters include " Madness in Cinema", and "Film as Film.
Limited enrolment: 50
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG899H3 The Imperial Imaginary in Cinema
An exploration of how the representation of travel, adventure, conflict, and formation of identity in the "adventure film" of Western culture promotes, preserves and sustains mythologies of "whiteness" and "(European) masculinity" as the focal point of knowledge, desire and power in an idealized fantasy of Western culture. From the image of King Kong gripping the Empire State Building, to the loyal but doomed Gunga Din, to Harrison Ford soaring on "navage" rituals in the Temple of Doom, the concept of the "white" explorer or soldier has depended on a counter image: the exotic, inscrutable, treacherous, unpredictable native or "other".
Limited enrolment: 50
Prerequisite: ENG801H1 & ENG802H1 & ENG803H1 & ENG804H1

ENG900H3 History in the New World
An introduction to post-colonial theory that looks at the problem of narrating the past when that past includes conquest, slavery, and colonization. We will look at works of historiography, theory, fiction, and epic poetry, primarily from Latin America and the Caribbean, to explore the problem of telling the history of the Americas.
Limited enrolment: 22
Prerequisite: 2 C-Level courses in English

ENG902H3 Topics in Contemporary Literary Theory
A study of selected topics in recent literary theory.
Limited enrolment: 22
Prerequisite: ENG151H or 2 C-Level courses in English
ENG D4H3 T.S. Eliot
The poems, plays, and essays of T.S. Eliot, one of the founders of literary modernism. Limited enrolment: 22
Prerequisite: 2 C-level courses in English.

ENG D2H3 James Joyce
A study of Joyce's work and accomplishments. Texts include Dubliners, A Portrait of the Artist as a Young Man, and Ulysses.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English.

ENG D4H3 Studies in Romanticism, 1750-1850
Topics in the literature and culture of the Romantic movement. Topics vary from year to year and might include Romantic nationalism, the Romantic novel, the British 1790s, or American or Canadian Romanticism.
Pre-1900 course
Limited enrolment: 22
Exclusion: ENG C2H2
Prerequisite: ENG C2H2 or 2 C-level courses in English.

ENG D3H3 Alice Munro
A study of the short fiction of Alice Munro.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English.

ENG D5H3 Emerson and the Emersonian Tradition in American Poetry
A reading of the "contrast" tradition of American poetry as originating in the writings of Ralph Waldo Emerson. Major poets by Walt Whitman, Emily Dickinson, Robert Frost, Wallace Stevens, A.R. Ammons, and John Ashbery will be read in relation to Emerson's distinctive formulation of transcendent currents of Romanticism.
Pre-1900 course
Limited enrolment: 22
Prerequisite: [ENG B04H3 & ENG B08H3] or 2 C-level courses in English

ENG D6H3 The Problem of a Liberal Culture: Emerson and Nineteenth-Century Cultural Prophets
A study of the nineteenth-century construction of theories of identity and culture. We will examine the major works of Emerson along with selected works of Tocqueville, Mill, Arnold, Carlyle, Ruskin, and Nietzsche as efforts to construct a post-enlightenment, post-revolutionary, trans-Atlantic substitute for the feudal-witocratic Christian culture of the ancient regime.
Pre-1900 course
Limited enrolment: 22
Prerequisite: ENG C1H2 or 2 C-level courses in English.

ENG D6H3 James Baldwin, the African-American Experience, and the Liberal Imagination
A study of the fiction, drama, and essays of James Baldwin and their cultural context.
Limited enrolment: 22
Prerequisite: ENG C1H2 or 2 C-level courses in English.

ENG D6H3 Power and Perception: Imperialism, Colonialism, and Identity in Twentieth-Century Fiction
An exploration of multilevel perspectives on issues of power, perception, and identity as revealed in literary treatments of imperialism and colonialism in the twentieth century.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English.

ENG D6H3 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, blues, political speech, comic monologues, and lyric poetry proper.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English.
ENG602H3 Woman 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.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG603H3 Myth and Canadian Fiction
An examination of Canadian writing in the context provided by myth. The course will examine the significance of myth studies in English 603H for work by such Canadian writers as Maclean, Munro, Watson, Laurence, Ondaatje, Btringhurst, and King.
Limited enrolment: 22
Exclusion: ENG6062Y, ENG6062H
Prerequisite: 2 C-level courses in English

ENG604H3 Canadian Writing at Century's End
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.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG605H3 The Image of the Home in North American Fiction
An investigation of home as organizing concept and thematic symbol in Canadian and American writing. This course will consider how focusing on home (one of the universal concepts around which narratives get organized) influences the way we read, especially within the context of culture and gender.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG606H3 The Scribnerians
A survey of the major writings of the short-lived but highly influential Scribner's Club (founded 1714).
Pre-1900 course
Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG607H3 Between Traditions and Freedoms: Writing by Canadians of Asian Descent
A study of lines of influence on writing by Canadians of Asian descent.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG608H3 Michael Ondaatje
A study of the novels, poems, memoir, and prose of one of Canada's major writers.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG609H3 Studies 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 Tennyson and Browning. Pre-1900 course
Limited enrolment: 22
Exclusion: ENG6244H
Prerequisite: 2 C-level courses in English

ENG610H3 Avant-Garde Cinema
An exploration of Avant-Garde cinema from the earliest experiments of German Expressionism and Surrealism through to the experimental cinema of our own time. The emphasis will be on cinema as an art form aware of its own unimportance and determined to discover new ways to exploit the full potential of the "cinematic." Limited enrolment: 22
Exclusion: ENG6245H
Prerequisite: 2 C-level courses in English

ENG611H3 Narrative and Interactivity
A study of how narratives in various media interact with the reader. We will examine such questions as the degree to which reader-response can be termed interactivity; how readers shape the outcome of narratives; and how narratives can be deformed by interactivity and still retain coherence and consistency.
Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG608R1 Senior Essay
A scholarly project chosen by a student and supervised by a faculty member.
Students should discuss their proposals with appropriate faculty or with the Discipline Representative.
Open only to students with a strong record who are completing the last 5 courses of a 4-year degree. Students must have completed at least 3 full-course equivalents in English, at least one at the C-level. This course is contingent both on the student's being accepted by a faculty supervisor and on the approval by the UTSC English faculty as a group, normally in the winter session before the student's final year.
Can be counted as a Pre-1900 course depending on the topic.
Exclusion: ENG490Y

Environmental Science (B.Sc.)
Faculty List
J.A. Westgate, B.Sc. (Reading), Ph.D. (Alberta), Professor Emeritus
R.B. Bryan, B.A. (Dublin), Ph.D. (Sheffield), Professor
N. Eyres, B.Sc. (Leicester), M.Sc. (Memorial University N.L.D.), Ph.D. (East Anglia), D.Sc. (Leicester), P.Geo., Professor
B. Greenwood, B.Sc., Ph.D. (Bristol), Ph.D. Professor
K.W.F. Howard, B.A. (Oxford), M.Sc., Ph.D. (Durham), P.Geo. (Calif/FG), P.HG. Professor
D.D. Williams, B.Sc. (University College, North Wales), Dip. Ed. (Liverpool), M.Sc., Ph.D. (Waterloo), D.Sc. (Waterloo), Professor
R.R. Fulthorpe, B.Sc., M.Sc., Ph.D. (Carleton), Associate Professor
W.A. Gough, B.Sc., M.Sc. (Toronto), Ph.D. (McGill), Associate Professor
A.G. Price, B.Sc. (Wales), M.Sc., Ph.D. (McGill), Associate Professor
P. Warriss, B.A. (Bournemouth), Ph.D. (Carleton), Associate Professor
A. Mclaurin, M.Sc. (Florida State), Ph.D. (London), P.Geo., Adjunct Associate Professor
M.J. Simpson, B.Sc., Ph.D. (Alberta), Assistant Professor
R.E. Gerber, B.Sc. (Waterloo), M.Sc., Ph.D. (Toronto), P.Geo., Adjunct Assistant Professor

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, extinction of species and problems of waste disposal are all a result of the lack of understanding of environmental systems and processes. Environmental degradation has an impact not only on human beings but on all species and most natural systems, so that its understanding requires approaches and skills from many disciplines such as biology, chemistry, geology, geography, mathematics, physics, and ecology.

Four Specialist Programs (Environmental Biology, Environmental Chemistry, Environmental Geoscience and Environmental Physics), a Major Program with three streams (General Environmental Science, Environmental Biology and Water Science) and a Minor Program are all available within Environmental Science at UTSC. The streams of the Major Program are designed for students who wish to pursue another Major or Specialist Program in a related discipline. All streams have a common core in the first two years; this reflects the strong interdisciplinary requirements of an integrated approach to the study of the environment and allows students to switch between streams if they wish.

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 Science, Environmental Chemistry, Environmental Geoscience and Environmental Physics and the all three streams of the Major Program are eligible for inclusion in the Co-operative Program in Physical Sciences and the Early Teacher Project in Physical Sciences. Please refer to the Physical Sciences Scarborough and the Co-operative Program sections of this Calendar for further details.

**SPECIALIST PROGRAM IN ENVIRONMENTAL BIOLOGY**
Supervisor of Studies: A.G. Price (416-287-7327)  Email: price@utsc.utoronto.ca
Advisor: D.D. Williams (416-287-7423)

Program Requirements
Total requirements: 14.5 FCE

**First Year:**
- EES0A01H Introduction to Environmental Science
- EES0A08H Introduction to Planet Earth
- BGVA01H Introductory Biology: Part I
- BGVA02H Introductory Biology: Part II
- CHMA101H Introductory Chemistry I: Structure and Bonding
- CHMA111H Introductory Chemistry II: Reactions and Mechanisms
- MATA30H Calculus I
- [MATA33H Calculus II for Biological Sciences or MATA36H Calculus II for Physical Sciences or MATA37H Calculus II for Mathematical Sciences]
- PHYA10H Introduction to Classical Physics

**Second Year:**
- BGYS08H Ecology
- BGYS09H Evolutionary Biology
- BGYS25H Ecology and Evolutionary Biology Laboratory
- EISB15H Earth History
- EISB16H Feeding Humans - The Cost to the Planet
- STAB22H Statistics
- [PSCB57H Introduction to Scientific Computing or CSAA08H Introduction to Computer Programming]
- 1.0 FCE from the following:
  - EISB33H Principles of Climatology
  - EISB34H Principles of Hydrology
  - EISB35H Principles of Soil Science
  - CHMB55H Environmental Chemistry

**Third Year:**
- EESC30H Geographic Information Systems and Remote Sensing
- EESC40H Biodiversity and Biogeography
- EISC15H Research Seminar in Environmental Science
- EISQ30H Microbial Biogeochemistry
- BGYC39H Advanced Population Ecology
- BGYC61H Advanced Community Ecology
- BGVC63H Conservation Biology

- 0.5 FCE from the following:
  - BGVC56H Limnology
  - BGYC57H Evolutionary and Applied Biology of Insects
  - BGYC65H Environmental Toxicology

**Fourth Year:**
- EESC33H Environmental Impact Assessment and Auditing
  - 0.5 FCE from the following:
    - EESS06H Climate Change Impact Assessment
    - EESS15H Cleaning up our Mess: Remediation of Terrestrial and Aquatic Environments
    - EESS22H Contaminant Fate in Terrestrial Environments
  - 0.5 FCE from the following:
    - BGVC52H Ecology Field Course
    - BGVC53H Marine Biology
    - BGYC67H Inter-University Advanced Field Ecology
    - BGYS51H River Ecology

- Strongly recommended:
  - BYDI01Y Supervised Study in Environmental Biology
  - EESS10Y Research Project in Environmental Science

**SPECIALIST PROGRAM IN ENVIRONMENTAL CHEMISTRY**
Supervisor of Studies: A.G. Price (416-287-7327)  Email: price@utsc.utoronto.ca
Advisor: J. Donaldson (416-287-7213)

Program Requirements
Total requirements: 14.5 FCE

**First Year:**
- EES0A01H Introduction to Environmental Science
- EES0A06H Introduction to Planet Earth
- BGYA01H Introductory Biology: Part I
- BGYA02H Introductory Biology: Part II
- CHMA101H Introductory Chemistry I: Structure and Bonding
- CHMA111H Introductory Chemistry II: Reactions and Mechanisms
- MATA30H Calculus I
- [MATA33H Calculus II for Biological Sciences or MATA36H Calculus II for Physical Sciences or MATA37H Calculus II for Mathematical Sciences]
- PHYA10H Introduction to Classical Physics

**Second Year:**
- BGYS08H Ecology
- CHMB21H Chemical Thermodynamics and Elementary Kinetics
- CHMB21H Chemical Structure and Spectroscopy
- CHMB44H Organic Chemistry I
- CHMB42H Organic Chemistry II
- CHMB55H Environmental Chemistry
- STAB22H Statistics

- 1.0 FCE from the following:
  - EISB03H Principles of Climatology
  - EISB04H Principles of Hydrology
  - EISB01H Principles of Soil Science
  - EISB15H Earth History
Environmental Science

Third Year:
EESC303H Geographic Information Systems and Remote Sensing
EESC307H Groundwater
EESC138H Environmental Impact Assessment and Auditing
EESC158H Research Seminar in Environmental Science
CHMD150H Techniques in Analytical Chemistry
CHMD311H Introduction to Inorganic Chemistry
PSCB57H Introduction to Scientific Computing

Fourth Year:
EESC202H Contaminant Hydrogeology
EESC155H Cleaning up our Mess: Remediation of Terrestrial and Aquatic Environments
CHMC111H Principles of Analytical Instrumentation
and
0.5 FCE from the following:
CHMC221H Topics in Biophysical Chemistry
CHMC321Y Intermediate Inorganic Chemistry
CHMC411H Intermediate Organic Chemistry
CHMC421H Bio-Organic Chemistry

SPECIALIST PROGRAM IN ENVIRONMENTAL GEOSCIENCE
Supervisor of Studies and Advisor: A.G. Price (416-287-7327) Email: price@utsc.toronto.ca

Program Requirements
Total requirements: 14.5 FCE

First Year:
EEA040H Introduction to Environmental Science
EEA060H Introduction to Planet Earth
BGYA02H Introductory Biology: Part I
BGYA02H Introductory Biology: Part II
CHMA100H Introductory Chemistry I: Structure and Bonding
CHMA111H Introductory Chemistry II: Reactions and Mechanisms
MATA38H Calculus I
MATA35H Calculus II for Biological Sciences
or
MATA36H Calculus II for Physical Sciences
MATA37H Calculus II for Mathematical Sciences
PHYA10H Introduction to Classical Physics

Second Year:
BGBT53H Ecology
CHMB51H Environmental Chemistry
EESB02H Principles of Geomorphology
EESB03H Principles of Climatology
EESB04H Principles of Hydrology
EESB05H Principles of Soil Science
PSCB57H Introduction to Scientific Computing
STAB22H Statistics I

Third Year:
EESC03H Geographic Information Systems and Remote Sensing
EESC04H Biodiversity and Biogeography
EESC07H Groundwater

EESC138H Environmental Impact Assessment and Auditing
EESC158H Research Seminar in Environmental Science
EESC311H Glacial Sedimentology and Stratigraphy
and
0.5 FCEs from the following:
EESC181H The Great Lakes: A Lacustrine System
EESC191H Marine Systems

Fourth Year:
1.0 FCE from the following:
EESC221H Urban Environmental Problems of the Greater Toronto Area
EESC022H Contaminant Hydrogeology
EESC061H Climate Change Impact Assessment
EESC091H Research Project in Environmental Science
EESC010Y Research Project in Environmental Science
EESC111H Process Hydrology
EESC155H Cleaning up our Mess: Remediation of Terrestrial and Aquatic Environments
EESC322H Contaminant Fate in Terrestrial Environments
and
1.0 FCE from any other EES courses
Strongly recommended: EESC161H, EESC07H or BGVC53H

SPECIALIST PROGRAM IN ENVIRONMENTAL PHYSICS
Supervisor of Studies: A.O. Price (416-287-7327) Email: price@utsc.toronto.ca
Advisor: W. Gough (416-287-7245)

Program Requirements
Total Requirements: 15.0 FCE

First Year:
PHYA10H Introduction to Classical Physics
PHYA11H Introduction to Modern Physics
MATA38H Calculus I
MATA36H Calculus II for Physical Sciences
CHMA10H Structure and Bonding
CHMA11H Reactions and Mechanisms
EESA01H Introduction to Environmental Science
EESA06H Planet Earth
MATA23H Linear Algebra I

Second Year:
PHYB20H Waves and Vibrations
PHYB21H Electricity and Magnetism
CHMB51H Environmental Chemistry
EESB02H Principles of Geomorphology
EESB03H Principles of Climatology
EESB04H Principles of Hydrology
EESB05H Principles of Soil Science
PSCB57H Introduction to Scientific Computing

Third Year:
PHYB10H Intermediate Physics Laboratory I
PHYB11H Intermediate Physics Laboratory II
STAB22H Statistics
EESB15H Earth History
EESC03H Remote Sensing and Geographical Information Systems
Environmental Science Stream
Advisor: D.D. Williams (416-287-7423)
Total Requirements: 7.0 FCE

First Year:
EESA01H Introduction to Environmental Science
EESA06H Introduction to Planet Earth
BGYA01H Introductory Biology Part I
BGYA02H Introductory Biology Part II

Second Year:
BGYS55H Ecology
BGYS51H Evolutionary Biology
BGYS52H Ecology and Evolutionary Biology Lab
EESB03H Principles of Climatology
EESB04H Principles of Hydrology
EESB05H Principles of Soil Science

Third Year:
EESC04H Biodiversity and Biogeography
STAB22H Statistics
1.0 FCE from the following:
BGYC27H Evolutionary and Applied Biology of Insects
BOYC63H Conservation Biology
BGYS56H Environmental Toxicology
CHMB55H Environmental Chemistry
EESB11H Feeding Humans - The Cost to the Planet
EESC08H Microbial Biogeochemistry

Water Science Stream:
Advisor: A.G. Price (416-287-7327)
Total Requirements: 8.0 FCE

First Year:
EESA01H Introduction to Environmental Science
EESA06H Introduction to Planet Earth
BGYA01H Introductory Biology Part I
BGYA02H Introductory Biology Part II
EESA07H Water

Second Year:
EESB02H Principles of Geomorphology
EESB03H Principles of Climatology
EESB04H Principles of Hydrology
EESB05H Principles of Soil Science
EESB11H Earth History
and
STAB22H Statistics
or
CSCA08H Introduction to Computer Programming
or
PSCB57H Introduction to Scientific Computing

Third Year:
BGYS50H Ecology
EESC03H Geographic Information Systems and Remote Sensing
EESC13H Environmental Impact Assessment and Auditing
EESC11H Glacial Sedimentology and Stratigraphy
EES06H3 Introduction to Planet Earth
This course explores the composition, structure and origin of the Earth and the physical and biological processes that operate in and on it; the history of the Earth as 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: (EES01H1, EES03H1, GGRA03H3, GGRA04H3, GLGG04H1, GGLG04H1, GGLG05H1, GGLG15H1, GGLG15Y)

EES07H3 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.

EES08H3 GIS for the Beginning Student
The application of Geographic Information System (GIS) techniques and analysis is expanding across a wide spectrum of fields – from scientific modeling through environmental impacts to use in business planning. This course explains the basic functionality and structure of GIS and how it deals with spatial information. In-class labs will be drawn from various fields. No previous computing experience, other than that of using a web browser, is required - students will be using a web-based GIS.
Exclusion: Any other GIS course, e.g. (SIGR00H1, EESC03H)

EES09H3 Air
A survey of current air quality and meteorological issues. Topics include air pollution, urban smog, acid rain, urban heat island, global warming and severe weather. Material will focus on a description of each issue and mitigation efforts employed. No prior knowledge of environmental science is required.

EES10H3 Human Health and the Environment
Because of pollution, our surroundings are becoming increasingly hazardous to our health. This past century has seen immense 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 why pollutants are produced, how they are taken up by humans and their long term effects on health, the role of naturally-occurring carcinogens will also be examined. The course will include a view of risk assessment and toxicoology using case studies. No prior knowledge of environmental or medical science is required.

EES11H3 Environmental Pollution
This course illustrates the environmental effects of urban expansion, changing methods of agriculture, industrialization, recreation, resource extraction, energy needs and the devastation of war. Drawing on information from a wide spectrum of topics - such as waste disposal, tourism, the arctic, tropical forests and fisheries - it demonstrates what we know about how pollutants are produced, the pathways they take through the global environment and how we can measure them. The course will conclude with an examination of the state of health of Canada's environments highlighting areas where environmental contamination is the subject of public discussion and concern. No prior knowledge of environmental science is required.

EES12H3 Principles of Geomorphology
The physical and chemical processes responsible for the development of geomorphology at the surface of the earth and the mechanics of entrainment, transport and deposition of mass by rivers, wind, glaciers, water waves, gravitational stresses, etc., which control the evolution of surface morphology.
EES804H1 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.
Exclusion: (GGR328Y), (GGR335H), GGR298H.
Prerequisite: EES1A0H or EES2A0H or any B-level EES course.

EES805H3 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.
Exclusion: (GGR270Y), (GGR355H) Prerequisite: EES1A0H or EES2A0H

EES815H3 Earth History
Planet Earth is at least 4.5 billion years old and a geological record exists for at least the last 3,000 million years in the form of igneous, metamorphic and sedimentary rocks. The changing dynamics of convective deep within the Earth's mantle and associated supercontinent assembly and breakup along with meteoric impacts, are now recognized as the major controls on development of the planet's atmosphere, oceans, biota, climate and geochemical cycles. This course reviews this long history and the methods and techniques used by geologists to identify ancient environments.
Prerequisite: EES2A0H & EES2A0H or permission of the instructor.

EES816H3 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 these species and systems and the local ecology will be examined, along issues of over-harvesting, genetic erosion, soil erosion, pesticide use, and impacts of genetically modified strains.
Prerequisite: BGY2A0H & BGY2A0H.

EES823H3 Geographic Information Systems and Remote Sensing
This course focuses on the use of Geographic Information Systems (GIS) and Remote Sensing (RS) for solving a range of scientific problems in the environmental sciences and describing their relationship with - and applicability to - other fields of study. (e.g. geography, computer science, engineering, geology, ecology and biology). Topics include (but are not limited to): spatial data types, formats and organization; geo-referencing and coordinate systems; remotely sensed image manipulation and analysis; map production.
Prerequisite: EES1A0H & 1.5 FCEs in B- or C-level EES courses. Recommended: A prior introductory GIS course, e.g. EES1A0H (GIS for the Beginning Student) and some experience with the use of computers (Windows or Unix-based.)

EES804H3 Biodiversity and Biogeography
Theoretical and practical aspects 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: BGY2B0H or (BGY2B0Y) or permission of the instructor.

EES807H3 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: EES1A0H & 1 FCE in B-level EES courses.

EES813H3 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.
Exclusion: GGR393H, (IN1220Y), GGR354H Prerequisite: 2.5 FCE of EES courses or permission of the instructor.

EES815H3 Research Seminar 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; 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.

EES813H3 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 will be held in Arizona in May 2005. Prerequisite: EESS13H and permission of the instructors.

EES815H3 The Great Lakes: A Lacustrine System
North America is endowed with eight of the twelve largest fresh-water lakes in the world. The hydrodynamics and hydroclimatic of the Canadian Great Lakes are used as examples from large lacustrine systems. Fundamental concepts in physical limnology are related to features found in the Great Lakes. Topics include: classification and origin of lakes, temperature structure, seasonal circulation, heat budgets, Limnique circulation, cycles, waves and water levels. Morphological forms and morphodynamical behaviour as a result of sediment transport process are examined particularly with respect to coastal processes. Exclusion: EESS250H Prerequisite: EESS20H Recommended Course: EESS20H.
EESC190H 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 to the coastal ocean. The large-scale water circulation is examined from an observationally based water mass analysis and from a theoretical hydro-dynamical framework. The circulation of marginal seas, the role of tides, waves and other currents are studied in terms of their effects upon the coastal boundary.

Exclusion: (EESC141H)
Prerequisite: EESC301H
Recommended Course: EESD021H

EESC213H 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 remediation 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.

Exclusion: (EESC602H)
Prerequisite: 10 FCEs in an EES Program, or permission of the instructor.

EESC240H 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 FCEs in EES courses. Permission of the Supervisor of Studies.

EESC393H Microbial 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 phylogeny, physiological diversity, species interactions and state of the art methods of detection and enumeration.

Exclusion: (BGVY351H)
Prerequisite: [CHMA410H & CHMA411H or CHMA426H] and [BGYB351H or BGYB351H or BGYB353H]

EESC313H 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 Torontonian region.

Exclusion: (GLG301H, GLG302H)
Prerequisite: EESD060H or (EESA01H)

EESD020H Contaminant Hydrogeology

Natural hydrochemical processes; the use of major ions, minor ions, trace metals and environmental isotopes in studying the occurrence and nature of ground water flow. Point and non-point sources of ground water contamination and the mechanisms of contaminant transport. Prerequisite: CHMB351H and at least 1 FCE in Environmental Science at the C-Level.

Exclusion: GLG470H, GLG471H, (GORD101H, GLG401H, GLG401H)
Prerequisite: EESC15H

EESD060H Climate Change Impact Assessment

Climate change over the last 150 years is reviewed by examining the climate record using both direct measurements and proxy data. Projection of future climate is reviewed using the results of sophisticated climate modeling. The climate change impact assessment formalism is introduced and applied to several examples. Students will acquire practical experience in climate change impact assessment through case studies.

Exclusion: (GGRD282H, GGRD283H)
Prerequisite: EESB041H or (GGRD283H or GGRD284H)

EESD070H Field Camp II

This field camp will familiarize students with several geological settings and modern environments. The camp will be held in Arizona in May 2005 in conjunction with EESC164H. Prerequisite: EESC164H and permission of the instructors.

EESD099H EESD199 Research Project in Environmental Science

The design, implementation, and reporting of a substantial research project involving laboratory and/or fieldwork. Existing faculty research allows a broad range of possible topics. The course should be undertaken after the end of the 3rd Year, subject to faculty availability. Faculty permission and supervision in 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.

Exclusion: GLG490H, GLG491H, (GORD101H, GLG401H, GLG401H)
Prerequisite: EESC15H

EESD119H Process Hydrology


Exclusion: (GGRD282H, GGRD283H)
Prerequisite: EESS041H or (GGRD283H or GGRD284H)

EESD195H 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: BGYA601H & BGYA602H & EESS041H & EESS041H & CRM255H

EESD320H Contaminant Fate in Terrestrial Environments

This course will present fundamental chemical concepts and reactions that occur in soils with 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: CRM255H & EESS099H
Environmental Science and Technology

Environmental Science and Technology (B.Sc.)

SPECIALIST (JOINT) PROGRAM IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY

Supervisor of Studies: A.G. Price (416-287-7327) Email: price@utsc.utoronto.ca

This program is offered in collaboration with The School of Engineering Technology and Applied Science at Centennial College. The program may be taken in partial fulfillment of an Honours (Specialist) B.Sc. Degree from UTSC. In addition to completing the requirements for the degree, students will qualify for the Environmental Protection Technician Diploma from Centennial College.

Program Admission

Limited enrollment. Students who are not admitted directly from high school must submit a joint program application form and request the program through ROSI.

Program Requirements

Students must complete 16.5 full course equivalents (FCE), as follows:

1. Introductory (3.5 FCE):
   a) EESAO1H Introduction to Environmental Science
   b) EESAO6H Introduction to Planet Earth
   c) CHMA10H Structure and Bonding
   d) CHMA11H Reactions and Mechanisms
   e) BGYA10H Introductory Biology: Part I
   f) BGYA12H Introductory Biology: Part II
   g) STAB22H Statistics
   h) PSCB17H Introduction to Scientific Computing

2. Fundamentals and Principles (3.5 FCE):
   a) BGYB35H Ecology
   b) MATA30H Calculus I
   c) MATA31H Calculus II for Physical Sciences
   d) EESB02H Principles of Geomorphology
   e) EESB03H Principles of Climatology
   f) EESB04H Principles of Hydrology
   g) EESB05H Principles of Soil Science
   h) EESB05H Earth History
   i) EESB14H Feeding Humans - The Cost to the Planet

3. Applied and Technical (8.0 FCE):
   (These courses will be taught at Centennial College's Morningside Campus)
   a) STEB21H Organic Chemistry and Applications
   b) IMCB01H Microbiology Basics
   c) IMCB02H Applied Environmental Microbiology
   d) STEC31H Applied Microbiological Analysis
   e) STEC15H Applied Analytical Instrumentation

4. Advanced (3.5 FCE):
   a) EESC01H Geographic Information Systems and Remote Sensing
   b) EESC04H Biodiversity and Biogeography
   c) EESC07H Groundwater
   d) EESC18H The Great Lakes: A Lacustrine System
   e) EESD02H Contaminant Hydrogeology
   f) EESD13H Process Hydrology
   g) EESD15H Cleaning up our mess: Remediation of Terrestrial and Aquatic Systems

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

STEB07H3 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 Industrial Microbiology. Exclusion: CMCC1H, CHMB1H, CHMB16H. Prerequisite: IMCB01H or CHMA11H and permission of instructor. Note: CMCC1H or CHMB16H may be taken after STEB07H, but STEB07H cannot be taken after CMCC1H or CHMB16H

STEB21H3 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.

STEB42H3 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.
French

See the Languages and Linguistics section of this Calendar.

Geography

(B.A.)

Faculty List
J.R. Mitton, B.A. (Queen's), M.A. (Pitt., M.Sc., Ph.D. (Toronto), Professor
E. C. Ralph, B.A., M. Phil. (London), Ph.D. (Toronto), Professor
M. F. Bence, B.A., Ph.D. (Sheffield), Associate Professor
K. MacDonald, B.A., M.A., Ph.D. (Waterloo), Assistant Professor
M. Mahani, B.A. (Dalhousie), Ph.D. (London), Assistant Professor
T. A. I. Dawson, B.A. Hon. (Oxon), M.A. (McMaster), M.A. (Oxon), Senior Lecturer

Discipline Representative/Supervisor of Studies: M. Bence (416-287-7313)

Email: bence@utsc.utoronto.ca

Geography is a broad-ranging subject. As a social science it is concerned with the spatial patterns of human activity and the character of regions and places. It is a subject 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, Society and Environment, Environmental Science, Political Science, Sociology, Anthropology, Economics for Management Studies and Development Studies. Geography courses are also listed as options in several UTSC Programs including Society and Environment and the Co-op Program in International Development.

MAJOR PROGRAM IN HUMAN GEOGRAPHY

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.

Program Requirements

The Major Program in Human Geography requires a total of 7 full credit equivalents (FCE). This program includes requirements in the areas of social science theory, methods, applications, and an advanced seminar. Among these 7 FCE, the student must include:

1. Introduction (1 FCE)

2. Theory and Concepts in Human Geography (at least 2 FCE from among the following):
   - GGRB05H Urban Geography
   - GGRB04H Planning in Canada
   - GGRB19H Real Estate and the City
   - GGRB33H Social Geography
   - GGRB53H Environmental Conservation and Sustainable Development
   - GGRB27H Location and Spatial Development

3. Methods (1 FCE)

4. Applications (at least 2 FCE from among the following):
   - GGRC03H Supervised Readings in Human Geography
   - GGRC02H Population Geography
   - GGRC04H Urban Residential Geography
   - GGRC07H Countryside Conservation

5. Exclusion: CHMC16H Note: STEC15H may not be taken after CHMC16H but CHMC16H may be taken after STEC15H.

6. Exclusion: CHMA11H & STEB07H

7. Exclusion: EESC25H Environmental Audits, Sampling and Data Management


9. Exclusion: EESC10H Environmental Science and Technology

Exclusion: EESC25H Environmental Audits, Sampling and Data Management

Exclusion: EESC13H Applied Hydrology and Flows Management

Exclusion: EESC10H Environmental Science and Technology
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: (GGRA01Y), (GEOA01Y), GGR10Y, GGR107Y

GGRA02H3 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: (GGRA10Y), (GEOA01Y), GGR101Y, GGR107Y

GGRA20H3 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: (GEOA01Y), (GEOA04H), EESC30H, GGR227H

GGRB03H3 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. Exclusion: GGR124H
Prerequisite: (GGRA02H & GGRA03H) or (GGRA01Y) or (GEOA01Y) or IDSB01H or alternative prerequisite with permission of the instructor

GGRB06H3 Planning in Canada

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: GDB14H

GGRB10H3 Real Estate and the City

Operation of property markets in an economic analysis: cities as markets in land and structures; stock of property and flows of accommodation service; location of industry, offices and retailing within the city; rental and owner-occupied housing; depreciation and maintenance; cyclical behaviour in metropolitan property markets; impacts of local government; property taxation. Exclusion: GGR101Y
Prerequisite: One of ECMB01H, EMB102H, EMB103Y, EMB104Y, GGR101H, GGR104H, GGR227H

GGBR10H3 Social Geography

The reciprocal relations between spatial structures and social identities. The course examines the role of social divisions such as class, race/ethnicity, gender and sexuality in shaping the social geographies of cities and regions. Particular emphasis is placed on space as an arena for the construction of social relations and divisions. Exclusion: (GGR104H) or (GGRA01Y) or (GGRA02H) or (GGRA03H) or (GGRA04H) or (GEOA01Y)

GGRB20H3 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: (GEOA01Y), (GEOA04H)
Prerequisite: (GGRA01Y) or (GGR01Y) or (GEOA01Y)

GGRB27H3 Location and Spatial Development

Location of a firm; market formation and areas; agricultural location; urban spatial equilibrium; trade and spatial equilibrium; locational competition; equilibria for an industry; trade and location. Exclusion: GGR229H
Prerequisite: (ECMA04H) or (ECMA06H) or (ECMA02Y)
GGRC201H1 Supervised Readings in Human Geography
An advanced exploration of research within Human Geography not otherwise feasible in available, open-end courses. Under supervision of a willing instructor, the student will prepare a proposal, final paper, and oral defence. The final grade is to be assigned by instructor and second reader.
Exclusion: GGR899H
Prerequisite: Requires written consent of an instructor. Open only to students in the Major Program in Human Geography who have already completed program requirements in (1) Introduction, (2) Theory and Concepts, and (3) Methods.

GGRC291H1 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.
Exclusion: GGR339H
Prerequisite: GGR380H

GGRC181H3 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.
Exclusion: GGR364H
Prerequisite: University-level half-credit in data analysis and one of ECEM80H, ECEM82H, ECEM83Y, ECEM84Y, GGR802H, GGR824H, GGR827H

GGRC191H3 Spaces of Multi-Raciality: Critical Mixed Race Theory
From Tiger Woods to Mariah Carey, the popular mixed race phenomenon has captured the popular imagination and revealed the contradictory logic of categorization underpinning racial divisions. We will explore the complexities of racial identity formation to illuminate the experiences of those who fall outside the prevailing definitions of racial identities.
Prerequisite: ANT816H or GGR831H or IDS881H or SOC801H or WSTA91H or permission of instructor

GGRC201H3 Issues in Rural Development
Special problems of rural communities and regions and associated development issues and strategies in north and south, with particular attention to the impact of urbanization and globalization on rural communities and their environments, to structural causes of rural marginalization and to changes in rural development paradigms.
Exclusion: IDS899H
Prerequisite: One of ANT811H, GGR813H, GGR822H, IDS881H, IDS890H

GGRC290H3 Agriculture, Environment and Development
Changing social, economic and environmental relations of agriculture in the late twentieth century. Includes expansion of global agricultural, how this has affected conditions of agriculture at the farm and regional level and problems of achieving sustainable agriculture and food systems in a international development context.
Prerequisite: One of ANT863H, ANT854H, IDS880H, IDS881H, GGR820H

GGRC332H3 The Greater Toronto Area
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: GGR805H

GGRC411H3 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.
[Limited enrolment: 30
Prerequisite: [GGR401H & GGR403H] or [GGR405H] or [SOC401H] or one B-level full-credit in Human Geography

GGRC450H3 Local Geographies of Globalization
Examines the localized consequences of global processes. Toronto will be used as a site for understanding how individuals interact with and experience the effects of globalizing forces differently based on their unique conditions of life and how they respond to the challenges and opportunities of a globalized world.
Exclusion: GGR401H
Prerequisite: GGR805H or GGR820H or ANT816H or (ANT816Y) or IDS880H or permission of instructor

GGRC461H3 Tourism, Environment and Development
Critical examination of the social, economic and environmental problems of tourism, with emphasis on trends and patterns of tourism growth at different geographical scales, and on the problems and contributions of tourism to sustainable development. A field trip during reading week will be an optional feature of the course.
Prerequisite: GGR820H or ANT816H or IDS880H or IDS882H

GGRD101H3 Human Geography Case Study
A senior seminar on geographic research methods and their application to a selected research project. Students select their own research project but seminars and guest lectures will introduce research skills and approaches, working in an academic research group environment, presenting research results and applying geographic knowledge.
Prerequisite: Open only to students in the Major Program in Human Geography who have already completed program requirements in (1) Introduction, (2) Theory and Concepts, and (3) Methods.

GGRD901H3 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 city, to the nation, drawing on the work of feminist geographers.
Prerequisite: [GGR401H & GGR403H] or WITC401H or permission of instructor
Health Studies (B.A./B.Sc.)

Faculty List
- F. D. Burton, B.Sc., M.A., (NYU), Ph.D. (CUNY), Professor Emeritus
- J. Boddy, B.A. (McGill), M.A. (Calgary), Ph.D., F.R.S.C., (UBC), Professor
- M. Lamber, B.A. (McGill), M.A., Ph.D. (Michigan), F.R.S.C., Professor
- A. E. Ives, B.A. (Harvard), M.A. (University of Canterbury), Sc.D. (Johns Hopkins), Canada Research Chair in International Health, Associate Professor
- L. Sawchuk, B.A., M.A. (Manitoba), Ph.D. (Toronto), Associate Professor

Supervisor of Students: L. Sawchuk (416-287-7347) Email: sawchukl@uottawa.ca

Health is an extremely important area of study, both from the perspective of science and social and behavioral sciences. Social scientists consider a wide range of questions, such as how can health systems and public policy be designed so as to promote health? How does individual behavior affect health? How do health and health needs vary over the lifecycle and between men and women? What can be learned from large scale survey data about health patterns? These Programs group together relevant courses from a range of disciplines, of interest to students who may apply to graduate Programs in health or work in health and related professions. The Programs are intended to be combined with a major in a relevant discipline.

MAJOR (CO-OPERATIVE) PROGRAM IN HEALTH STUDIES

Co-op Contact: R. Louden Email: askcoop@uottawa.ca

Program Admission
This is a limited enrollment 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.

Program Requirements
Work terms will be in the health and health-related sectors, and may be in public institutions, in research institutions, and in the private sector. There are two work terms, each of 6 months. In order to be eligible for the first work term, students must complete at least 9 full credits, including the Methodology requirements in section I, HLTA21H, and one other course from the program requirements. In addition, they must complete the non-credit Arts & Science Work Term Preparation course.

Course Requirements
See requirements for Major Program in Health Studies. In addition, students are required to include HLTD02H, Health Research Seminar.

MAJOR PROGRAM IN HEALTH STUDIES (B.A./B.Sc.)

Program Requirements
This program requires a minimum of 7 full credits (FCEs). Students must complete at least 2 FCEs from Section I, 1.5 FCEs from Section II, and 3.5 FCEs from Section III. No more than 6 FCEs can be counted from any single discipline for this program. Students should check the prerequisites required for the B- and C-level courses: note that ECMBU2H, ECMBU1H, SOCB4H1, SOCB4H3, and SOCB4H6 are limited enrollment courses, with first preference in these courses going to students enrolled in limited enrollment programs in ECOM and SOC respectively.

Section I: Methodology
Students must choose one of the five groups of courses below:

- either [ANTA40H1 & ANTA42H1 & ANTC35H1 & ANTC66H1]
- or [BGYA30H1 & BGYA42H1 & BGYB10H1 & BGYB11H1]
- or [ECMA40H1 & ECM34H1 & ECM32H1 & ECMB11H1]
- or [PSYB10H1 & PSYB42H1 & PSYB43H1 & PSYB47H1]
- or [SOC301Y1 & SOCB44H1 & SOCB49H1 & SOCB66H1]

Note: STAT22H1 may be taken in place of ANTC33H1, ECMB11H1, PSYB97H1 & SOCB66H1.

Section II: Core Courses
1.5 FCEs as follows:
HLTA10H1 Plagues and Peoples
IDSB44H1 International Health Policy Analysis
POLC53H1 The Politics of Canadian Policy Health

Section III:
3.5 FCEs from HLTA and/or from the following which must include at least 1.5 FCEs at the C- or D-level:
- ANTB14H1 Biological Anthropology: Beginnings
- ANTB13H1 Contemporary Human Evolution and Variation
- ANTB19H1 Varieties of Social Life
- ANTB25H1 Culture, Politics and Globalization
- ANTB50H1 Health and the Urban Environment
- ANTC15H1 Medical Anthropology: Illness and Healing in Cultural Perspective
- ANTC22H1 Medical Anthropology: Biological and Demographic Perspectives
- ANTC31H1 The Anthropology of Food: Human Needs
- ANTC45H1 The Anthropology of Food: Consuming Passions
- ANTD11H1 The Body in Culture and Society
- ANTD23H1 Ethnomedicine
- BGYC17H1 Microbiology I: The Bacterial Cell
- BGYC18H1 Microbiology II: Perspectives on the Microbiology World
- BGRC12H1 Vertebrate Histology: Cells and Tissues
- BGRC21H1 Vertebrate Histology: Organs
- BGRC50H1 Foundations of Epidemiology
- ECOM23H1 Economics of Health Care
- EESA10H1 Human Health and the Environment
- HLTD11H1 Health, Aging and the Life Cycle
- HLTD22H1 Issues in Child Health and Development
- HLTD31H1 Directed Research on Health Services and Institutions
- HLTD32H1 Women and Health: Past and Present
- HLTD35H1 Directed Readings in Health Studies
- HLTD36H1 Health Research Seminar
- IDSD41H1 Issues in International Health
- LSCA41H1 Human Biology
- NRBG47H1 Psychology of Aging
- PHB40H1 Biomedical Ethics
- PSYB32H1 Abnormal Psychology
- PSYB50H1 Human Brain and Behaviour
- WSTC35H1 Special Topics in Women's Studies/Gender Issues (offered as Women and Health)

The requirements for a B.Sc. Major are that at least five FCEs carry science credit. These include HLTD01H, HLTD20H, any Anthropology option that is listed as a science credit in the Anthropology section of the Calendar and any option in Biology, Neuroscience and Psychology.
MINOR PROGRAM IN HEALTH STUDIES (B.A.)

Program Requirements

Students must complete 4 full credits. 1.5 credits from Section I

Section I

HLTA01H Plagues and Peoples
IBDS04H International Health Policy Analysis
POLS350H The Politics of Canadian Health Policy

And 2.5 full credits chosen from HLTO and/or from the following list (which must include at least 0.5 credit at the C- or D-level).

Section II

ANTB14H Biological Anthropology: Beginnings
ANTB15H Contemporary Human Evolution and Variation
ANTB19H Varieties of Social Life
ANTB20H Culture, Politics and Globalization
ANTB56H Health and the Urban Environment
ANTC06H Medical Anthropology: Illness and Healing in Cultural Perspective
ANTC09H Medical Anthropology: Biological and Demographic Perspectives
ANTC08H The Anthropology of Food: Human Needs
ANTC09H The Anthropology of Food: Consuming Passions
ANTD01H The Body in Culture and Society
ANTD23H Ethnemedicine
BGYC30H Foundations of Epidemiology
EESA10H Human Health and the Environment
HLTB01H Health, Aging and the Life Cycle
HLTB02H Issues in Child Health and Development
HLTC01H Directed Research on Health Services and Institutions
HLTC02H Women and Health: Past and Present
HLTD02H Health Research Seminar
HLTD01H Directed Readings in Health Studies
LSCA040H Human Biology
PHLB09H Biomedical Ethics

WSTC30H Special Topics in Women's Studies and Gender Issues (if offered as women and health)

HLTA01H Plagues and Peoples

Considers the origins, antiquity and impact of plagues on human societies. The course will pursue cultural, evolutionary, epidemiological and ecological themes. Consideration will be given to historic, contemporary and newly-emerging infectious epidemics, with a view to understanding why "plagues" emerge and how their occurrence is intimately linked to human behaviour.

HLTB01H Health, Aging and the Life Cycle

This course focuses on the transition from birth to old age and changes in health status. Topics to be covered include: socio-cultural perspectives on aging, the aging process, chronic and degenerative diseases, caring for the elderly.

Prerequisite: HLTA01H or ANTA01H/ ANTA02H or BGYA01H/ BGYA02H or PSAY01H/ PSAY02H

HLTB02H Issues in Child Health and Development

This course will explore bio-social aspects of health and development in children. Topics for discussion include genetics and development, growth and development, childhood diseases, the immune system, and nutrition during the early years.

Prerequisite: HLTA01H or ANTA01H/ ANTA02H or BGYA01H/ BGYA02H or PSAY01H/ PSAY02H

HLTD01H 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 at the College. Students must obtain consent from the Supervisor of Studies and supervising instructor before registering for this course.

Prerequisite: HLTA01H & IBDS04H & POLS350H & permission of the instructor

HLTD02H Health Research Seminar

Provides senior students with the opportunity to apply methodological skills to a health research problem. Students will give presentations of their research proposals, and there may be a guest seminar on health research projects.

Prerequisite: Students must have completed 6 FCE from the requirements of the Major Program in Health Studies, including completing the methodology requirements from Section I. Limited to students in the Major (Co-operative) Program in Health Studies, other Major in Health Studies students may take the course with permission of the instructor

History (B.A.)

Faculty List

J.S. Mee, M.A., Ph.D. (Toronto), D.D. (Presb. College, Montreal), Professor Emeritus
E.W. Dowler, A.M., (Harvard), Ph.D. (London School of Economics), Professor
M. Euleins, B.A. (Toronto), B.Phil., D.Phil. (Oxon.), Professor
M. Girven, A.B. (Princeton), M.A. (Polities), Ph.D. (Toronto), Professor
L.R. Robertson, M.A. (McGill), Ph.D. (Toronto), Professor
F. Inzetta, M.A., Ph.D. (York, Canada), Associate Professor
D.E. Bender, M.A., Ph.D. (New York), Assistant Professor
R.A. Kamal, M.A., Ph.D. (Pennsylvania), Assistant Professor
S.J. Rockel, M.A., Ph.D. (Toronto), Assistant Professor
J. Schendel, M.A. (Ohio State), Ph.D. (Heidelberg), Assistant Professor

Discipline Representative: Until June 30, 2005, M. Euleins (416-287-7145)

From July 1, 2005, S. Rockel (416-287-7145)

The study of history is intended to enhance our understanding of human society by examining the experiences of particular peoples and their societies in the past. Its findings depend upon the precise evaluation of specific evidence. History's concerns and goals are humanistic; its methods draw from all forms of scholarly endeavour. History courses, therefore, can play a part in a number of interdisciplinary Programs and can serve as an adjunct to courses in Politics, Philosophy, Literature, Economics, Sociology, and Anthropology.
The History curriculum combines a variety of approaches and teaching in order to satisfy a number of purposes. HISA01H and HISA02H provide both a general introduction to the study of history at the university level, and the preparation for further studies in World history. A series of survey courses (HISB01H/H1-H3) provides a comprehensive foundation of knowledge in particular areas. In upper-level courses students investigate more specific areas, periods, or problems. D-series courses are conducted as seminars. In them students make close and thorough studies of particular questions and present their findings in discussions and major essays. There are courses at all levels in the following areas and periods of history: Medieval Europe, Modern Europe, Britain, Canada, America and the United States, Russia, Ancient Greece and Rome, Africa, Asia, and Latin America.

The History Study Guide is available at:
http://www.arts.utoronto.ca/hum/hist/History/studyguide/

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
Email: robertson@arts.utoronto.ca
From July 1, 2005, F. Iacovetta (416-287-7152) Email: iacovetta@arts.utoronto.ca

Program Requirements:
1. Number of Courses
   Students must complete at least ten full credits in History. These ten must include
   HISA01H, HISA02H, HISB01H and five upper-level full credits (C-/D-level courses at
   UTSC or 300/400-level courses on the St. George Campus or at UTM). At least one of the
   five upper-level credits must be at the D-level.

2. Pre-1815 Courses
   Of the ten credits at least two full credits must deal with the period prior to 1815.

3. Areas of Study
   Students must include:
   a) At least one full credit in Canadian History, and
   b) At least one course from at least two of the following areas of history:
      a) American
      b) Medieval
      c) European
      d) African, Asian, and Latin American
      e) Ancient Greek and Roman

MAJOR PROGRAM IN HISTORY
Email: robertson@arts.utoronto.ca
From July 1, 2005, F. Iacovetta (416-287-7152) Email: iacovetta@arts.utoronto.ca

Program Requirements:
1. Number of Courses
   Students must complete seven full credits in History. These seven must include:
   HISA01H, HISA02H and three upper-level full credits (C-/D-level courses at UTSC or 300/400-level
   courses on the St. George Campus or at UTM).

2. Pre-1815 Courses
   Of the seven credits at least one full credit must deal with the period prior to 1815.

3. Areas of Study
   Students must also include at least one course from at least two of the following areas of history:
   a) Canadian
   b) American
   c) Medieval
   d) European
   e) African, Asian, and Latin American
   f) Ancient Greek and Roman

MINOR PROGRAM IN HISTORY
Email: robertson@arts.utoronto.ca
From July 1, 2005, F. Iacovetta (416-287-7152) Email: iacovetta@arts.utoronto.ca

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.

HISA01H The Twentieth Century World I
World history from the age of imperialism to the end of World War II, emphasizing both the diversity and the
commodity of human experience in the twentieth century. Major themes include imperialism, war, revolution, totalitarian
ideologies, social, economic, and cultural change, nationalism.
Exclusion: (HISG03Y), (HISG01Y)

HISA02H The Twentieth Century World II
World history from the end of World War II to the present day, emphasizing both the diversity and the commodity
of human experience in the twentieth century. Major themes include decolonization, economic change, the
Cold War, the communications revolution, the development crisis, struggles for human
rights and democracy.
Exclusion: (HISA03Y), (HISG01Y)
Prerequisite: HISA01H

HISB01H 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 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.

HISB18H3 History on Film
An examination of selected historical events or 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.

HISB20H3 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: (HISB02Y), HIS23H1

HISB21H3 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
Exclusion: (HISB02Y), HIS23H1
Prerequisite: HISB01H
HISB30H3 American History to the Civil War
This course surveys such matters as social, economic and political change in the newly-independent republic, political parties and conflicts, territorial expansion, conflict and war with other nations, reform movements, nationalism and sectionalism, the South and slavery, the Civil War and the ending of slavery. 0.25 pre-1815 credit
American Area
Exclusion: (HIS30Y5), HIS271Y

HISB31H3 History of the United States since the Civil War
This course offers a survey of U.S. history from the post-Civil War period through the late 20th century, examining key episodes and issues such as settlement of the American West, industrialization, urbanization, immigration, popular culture, social movements, race relations, and foreign policy.
American Area
Exclusion: (HIS30Y5), HIS271Y
Prerequisite: HISB30H

HISB40H3 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. 0.25 pre-1815 credit
Canadian Area
Exclusion: (HISB40Y5), (HIS260Y5), (HIS261Y5), (HIS262Y5), HIS263Y

HISB41H3 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
Exclusion: (HISB40Y5), (HIS260Y5), (HIS261Y5), (HIS262Y5), HIS263Y
Prerequisite: None, but HISB40H highly recommended.

HISB55H3 Modern Southeast Asia I: 1750-1900
An introduction to the political, socioeconomic, and cultural history of Southeast Asia under the last indigenous dynasties and during the phase of colonial conquest. Topics will include processes of indigenous state formation, the emergence of colonial regimes, and the creation of export-oriented economies.
Pre-1815 course
African, Asian, and Latin American Area
Exclusion: (HIS540H)

HISB56H3 Modern Southeast Asia II: 1900-Present
An examination of the political, socioeconomic, and cultural history of Southeast Asia in the periods of emerging nationalism, decolonization, and independence. Topics will include anti-colonial resistance, the Japanese occupation, wars of independence, liberal and authoritarian modes of government, religious change, export-oriented economic development, separatist movements, and regional cooperation.
African, Asian, and Latin American Area
Exclusion: (HIS540H)
Prerequisite: HISB55H

HISB68H3 Europe in the Early Middle Ages (305-1053)
This course covers the development of Europe from the Late Roman period to the eleventh-century separation of the Roman and Byzantine Churches. It includes the foundation and spread of Christianity, the settlement of "barbarians" and Vikings, the establishment of Frankish kingdoms, the Empire of Charlemagne, and feudalism and manorialism.
Pre-1815 course
Medieval Area
Exclusion: (HIS105Y), HIS220Y

HISB69H3 Europe in the High and Late Middle Ages (1053-1492)
An introduction to the social, political, religious and economic foundations of the Western world, including Church and State relations, the Crusades, pilgrimage, monasticism, universities and culture, rural exploitation, town development and trade, heresy, plague and war. Particular attention will be devoted to problems which continue to disrupt the modern world.
Pre-1815 course
Medieval Area
Exclusion: (HIS105Y), HIS220Y
Prerequisite: none, but HISB68H highly recommended

HISB70H3 Kievian Rus and Muscovy, 880-1689
The early history of present-day Ukraine and Russia from origins to the beginnings of empire.
Topics will include Christianization, Kievian society and law, the Mongol conquest, the rise of Muscovy, the growth of the autocratic state, early European contacts and the Church schism.
Pre-1815 course
European Area
Exclusion: (HIS107Y), HIS250Y

HISB71H3 Imperial Russia, 1682-1906
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, emancipation of the serfs, industrialization, emergence of social classes, reform and revolution, the flowering of Russian art and literature.
Pre-1815 course
European Area
Exclusion: (HIS107Y), HIS250Y

HISB72H3 Revolutionary Russia, 1900 - Present
The history of 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 Stalinist cult, the disintegration of Stalinism and the end of the USSR.
European Area
Exclusion: (HIS107Y), HIS250Y

HISB80H3 Early Modern Europe I: 1450-1618
A period of fundamental, often violent, change in European civilization: Renaissance, Humanism, and printing; development of new types of monarchy; religious reformation; splitting Western Christendom; local and continental wars; exploration and the first European empires.
Pre-1815 course
European Area
Exclusion: (HIS107Y), HIS241H

HISB81H3 Early Modern Europe II: 1600-1815
Social, political, and intellectual transformations culminating in revolution. Thirty Years War, witchcraft and science; Louis XIV and absolutist statecraft; the Enlightenment, the agricultural revolution; slavery; European empires; the French Revolution Pre-1815 course
European Area
Exclusion: (HIS107Y), HIS241H
Prerequisite: none, but HISB68H recommended

HISB89H3 Modern Europe I: The Nineteenth Century
Europe from the French Revolution to the First World War. Major topics include revolution, industrialization, nationalism, imperialism, science, technology, art and literature.
European Area
Exclusion: (HIS109Y), HIS241H

HISB91H3 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: (HIS109Y), HIS242H

HISC14H3 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.
Limited enrollment: 30
Prerequisite: [HIS001H & HIS02H] or [HIS00Y]
HISC241H3 Atlantic Canada since 1815
An intensive study of the region's Confederation and the Maritimes after Confederation; Newfoundland from earliest European contacts to its entry into Confederation.
Canadian Area
Exclusion: (HISB46Y), (HISC46Y), HIS546H
Prerequisite: (HISB04Y) or HISB40H & HISB41H & HISC40H

HISC441H3 Quebec Since 1759
Themes will include "survival" as an issue; "nationalism" and its variants; immigration and the relationship of the majority with minorities; Confederation; the impact of the two world wars; the "Quiet Revolution" in the 1960s; the growth of a movement for independence. Knowledge of the French language is not required.
Canadian Area
Exclusion: HIS314Y & HIS413H
Prerequisite: [HISB40H & HISB41H] or [HISB04Y]

HISC494H3 Canada Between the World Wars
An intensive examination of the leading themes in Canadian political, economic, social, and cultural history in the 1920s and 1930s. Topics will include the impact of the First World War, the development of Canadian autonomy, and the Great Depression of the 1930s. Canadian Area
Prerequisite: (HISB04Y) or HISB41H

HISC504H3 Africa in the Nineteenth Century
An introduction to the history of Sub-Saharan Africa, from the era of the slave trade to the colonial conquests. Throughout, the capacity of Africans to overcome major problems will be stressed. Themes include slavery and the slave trade, pre-colonial states and societies, economic and labour systems, and religious change. African, Asian, and Latin American Area
Exclusion: (HIS090Y), HIS295Y, HIS396Y
Prerequisite: [HISB01H & HISB02H] or [HISB03Y] or any modern history credit or permission of the instructor

HISC515H3 Twentieth Century Africa
Modern Sub-Saharan Africa, 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 economics, gender and ethnicity; religious and political movements; development and underdevelopment, post-colonial conflicts, as well as cultural achievements.
African, Asian, and Latin American Area
Exclusion: (HISB01Y), (HISB02Y), (HIS090Y), HIS396Y
Prerequisite: HISC50H

HISC250H3 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.
HISC3793 Social History of Revolutionary Russia, 1900-Present
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 break-up of the USSR. 
European Area Exclusion: HISC151Y
European Area Prerequisite: HISC877Y or HISC878H or any 2.5 FCE in HIS

HISC3913 Modern Germany I: The Nineteenth Century
German history from the end of the Holy Roman Empire to the outbreak of the First World War. Themes 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 Exclusion: HISC877Y, HISC878Y, HISC871H, HISC871Y
HISC877Y or HISC878Y or permission of the instructor

HISC4913 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 Exclusion: HISC877Y, HISC878Y, HISC871H, HISC871Y
HISC877Y or HISC878Y

HISC3101 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. 
History Faculty Exclusion: HISC801H, HISC802H, HISC803H, HISC849H, HISC849P
Prerequisite: at least 15 FCEs and completion of the requirements for the Major in History; written permission must be obtained from the instructor in the previous semester.

HISC3163 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. 
Pre-1815 course
European Area Exclusion: HISC315H
Prerequisite: HISC807Y or HISC807H or any 2.5 FCE in HIS

HISC0013 Honours essay
The honours essay will be assigned by the student's Honours History advisor. Students are encouraged to consult their advisor regarding the development of their essay. The essay is due in the second term of the Honours History program. 

HISC0023 Honours research
This course is designed for students in the Honours History program who are preparing a research paper for their final year. The course provides guidance on the development of research questions, literature review, and the preparation of a research paper. 

HISC8000 Honours 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. 

HISC801H Honours Dissertation
This course is designed for students in the Honours History program who are preparing a dissertation for their final year. The course provides guidance on the development of research questions, literature review, and the preparation of a dissertation. 

HISC802H Honours Seminar
This course is designed for students in the Honours History program who are preparing a seminar paper for their final year. The course provides guidance on the development of research questions, literature review, and the preparation of a seminar paper. 

HISC803H Honours Project
This course is designed for students in the Honours History program who are preparing a project for their final year. The course provides guidance on the development of research questions, literature review, and the preparation of a project. 

HISC849H Honours Seminar-Research
This course is designed for students in the Honours History program who are preparing a seminar paper for their final year. The course provides guidance on the development of research questions, literature review, and the preparation of a seminar paper. 

HISC849P Honours Project-Research
This course is designed for students in the Honours History program who are preparing a project for their final year. The course provides guidance on the development of research questions, literature review, and the preparation of a project. 

The Honours History program is a four-year program that provides students with an in-depth understanding of history. The program requires the completion of a major in history, which consists of a combination of courses in historical research, theory, and methodology. Students are encouraged to consult their advisor regarding the development of their essays, research papers, and projects. 

The Honours History program offers a range of courses in various fields of history, including politics, economics, culture, and society. Students are encouraged to explore different areas of interest and to develop their own research questions. 

The Honours History program also provides students with the opportunity to engage in original research and to develop their research skills. Students are encouraged to consult their advisor regarding the development of their research projects. 

The Honours History program is designed to prepare students for a variety of careers, including teaching, policy analysis, and historical research. The program also provides students with the opportunity to pursue further studies in history or related fields. 

The Honours History program is a rigorous and challenging program that provides students with a thorough understanding of history. The program is designed to prepare students for a variety of careers and to develop their research skills. Students are encouraged to consult their advisor regarding the development of their research projects.
HIS504H3 Southern Africa, 1652-1910
A seminar study of the history of the peoples of southern Africa, beginning with the hunter-gatherers but concentrating on farming and industrializing societies. Students will consider pre-colonial civilizations, colonialism and white settlement, slavery, the colonial revolution and the South African War. Extensive reading and student presentations are required.
African, Asian and Latin American Area
Limited enrolment: 15
Exclusion: (HISD61Y) or (HISC60Y) or HISC50H or any two Modern History credits

HIS505H3 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, segregation, apartheid, colonial rule, liberation movements, and the impact of the Cold War. Historiography and questions of race, class and gender will be important. Extensive reading and student presentations are required.
African, Asian and Latin American Area
Limited enrolment: 15
Exclusion: (HISD61Y)
Prerequisite: HIS504H

HIS506H3 East African Societies in Transition
A seminar study of East African peoples from late pre-colonial times to the 1990s, emphasizing their rapid although uneven adaptation to integration of the region into the wider world. Transitions associated with migration, commercialization, religious change, colonial conquest, nationalism, economic development and conflict, will be investigated. Student presentations are required.
African, Asian and Latin American area.
Limited enrolment: 15
Prerequisite: (One of HIS104H, HISC50H, (HISC60Y), (HISD61Y)) or any two history credits

HIS506H3 State Formation in Pre-Colonial Southeast Asia, c. 1750-1870
The seminar will examine the structural changes in Southeast Asian politics during the late eighteenth century. Case studies on, among other topics, administrative reforms, political ideologies, territorial integration, revenue patterns, and the political role of religion will be related to broader themes such as the origin of imperialism intrusion and the emergence of the modern national state.
Pre-1815 course
African, Asian, and Latin American Area
Limited enrolment: 15
Prerequisite: Two B- or C-level credits in History, or permission of the instructor.

HIS563H3 The Crusades I
Modern interpretations of the Crusades will be investigated in the broad context of Western expansion into the Middle East (1099-1260), Spain and southern Europe, and North-Eastern Europe. Also considered will be the Christian Military Orders, the Mongols and political crusades within Europe itself.
Pre-1815 course
Medieval Area
Limited enrolment: 15
Exclusion: (HISC62Y), (HISD62Y)
Prerequisite: (HIS60W) or (HIS50H & HIS50B1H)

HIS604H3 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.
Pre-1815 course
Medieval Area
Limited enrolment: 15
Exclusion: (HISC62Y), (HISD62Y)
Prerequisite: (HIS60W) or (HIS50H & HIS50B1H)

CLAB05H3 The Mediterranean World I: Greece
CLAB06H3 The Mediterranean World II: Rome
CLAB02H3 Army and Empire in the Roman World
CLAC411H3 Slavery in the Roman Economy
These courses may be used to fulfill History Program requirements. (See the Classic Studies section of this Calendar for full descriptions.)
Pre-1815 courses
Ancient Greek and Roman Area

Humanities (B.A.)
Faculty List
R. Campbell, B.A., M.A., (Windsor), Ph.D. (Waterloo), Associate Professor

The Department of Humanities comprises several distinct disciplines, such as Visual and Performing Arts, Classical Studies, English, History, Philosophy, Languages and Linguistics. Each of them offers a range of courses in its own area and its own Program(s) of study. These are listed under the pertinent headings in the Calendar. In addition, the Department offers a Co-operative program in Humanities and various courses which fall outside the purview of the traditional disciplines. The Humanities Study Guide is available at: http://www.utsc.utoronto.ca/sehumanitieS/studyguide/index.htm

CO-OPTERATIVE PROGRAM IN HUMANITIES
Email: dowler@utsc.utoronto.ca
From July 1, 2005: L. Carney (416-287-7171)
Email: carney@utsc.utoronto.ca

The Co-operative Program in Humanities allows students to combine their chosen academic program with work experience that draws upon the knowledge and skills acquired during their academic studies. Students are required to complete a Specialist Program offered by the Department of Humanities, or two Major Programs, at least one of which is offered by the Department, and to complete the requirements of an Honours (20-credit) B.A. degree. For information on fees, work terms, and studying in the program, please see the Co-operative Programs section of this Calendar.

Program Requirements
The program requires eight four-month sessions of study and two four-month work sessions over a four-year period. Note: For information on the Specialist (Co-operative) Program in Arts Management, which operates separately from the Co-op Program in Humanities, see the Visual and Performing Arts section of this Calendar.

Course Requirements
Students in the Co-operative Program in Humanities must complete all three of the following core full credit equivalents. Where appropriate, credits in this list may also count towards the completion of a Specialist or Major Program.

1. HIS504H3 Southern Africa, 1652-1910
2. HIS505H3 Southern Africa: Colonial Rule, Apartheid and Liberation
3. HIS506H3 East African Societies in Transition
4. HIS506H3 State Formation in Pre-Colonial Southeast Asia, c. 1750-1870
5. HIS604H3 The Crusades I
6. HIS604H3 The Crusades II
7. CLAB05H3 The Mediterranean World I: Greece
8. CLAB06H3 The Mediterranean World II: Rome
9. CLAB02H3 Army and Empire in the Roman World
10. CLAC411H3 Slavery in the Roman Economy
11. Humanities Study Guide
12. Co-operative Programs
13. Program Requirements
14. Course Requirements
1. (1.5 full credit equivalents)
   1.5 FCE in English, including:
   either
   [ENG802H Critical Writing About Narrative
   and
   ENG803H Critical Thinking About Narrative] or
   [ENG800H Critical Writing About Poetry
   and
   ENG804H Critical Thinking About Poetry] or
   [LOGA17H Current Approaches to the Academic Writing Process I: A Course for Non-Native Speakers of English
   and
   LOGA18H Current Approaches to the Academic Writing Process II: A Course for Non-Native Speakers of English
   and
   LOGA19H Writing Practice: A Course for Non-Native Speakers of English]

2. (1.0 full credit equivalents)
   HIS800H History and Evidence
   and
   PHLB55H The Art of Thinking

3. (0.5 full credit equivalents)
   VPA803H Computers and the Arts I
   or
   CSCA02H The Why and How of Computing

In addition to the core credits, students must complete the requirements of a Specialist Program offered by the Department of Humanities, or of two Major Programs. A Major Program in Humanities may be combined with a second Humanities Major, or with a Major offered by any other academic department at UTSC.

The following programs offered by the Department of Humanities may be chosen by students:

Specialist Programs
   Art and Culture
   English
   History
   Philosophy
   Psycholinguistics

Major Programs
   Art History
   Drama
   English
   French
   History
   Linguistics
   Music and Culture
   Philosophy
   Studio
   Women’s Studies

For the requirements of these programs, please see the program description elsewhere in this Calendar.

Students in the Co-operative Program in Humanities are encouraged to use their elective credits to take courses outside their area(s) of concentration in order to broaden their understanding of contemporary social issues and their historical context, and to enhance their communication skills. Students should consult with the Supervisor of Studies of the Co-operative Program in Humanities as well as with their discipline program supervisor(s) about their course selections.

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 and have completed at least 9.0 full credit equivalents, including at least 2.5 full credit equivalents from among the Co-op core courses and at least 4.5 full credit equivalents toward the requirement of the Specialist Program or the Humanities Major Program(s) in which they are enrolled. In addition, students must have completed the non-credit Arts & Science Co-op Work Term Preparation course.

To be eligible for their second work term, students must have completed at least 12.5 full credit equivalents, including all 3.0 co-op credits and at least 7.0 credits toward the requirements of their Specialist program or their Major Program(s). As well, they must have received a satisfactory evaluation for their performance and their report on their first work term.

MINOR PROGRAM IN RELIGION
   Supervisor of Studies: R. Campbell (416-287-7498)
   Email: rcampbell@utsc.utoronto.ca

Program Requirements
   Students must complete 4.0 full credits (FCEs) as follows:
   1. HUM803H Religious Traditions of the West
   2. HUM804H Religious Traditions of the East
   3. 3.0 additional FCEs from the following list, with at least 1.0 FCE at B or C level:
      ANTB80H Conceptualizing Religion
      ANTB80H Peoples of the Middle East
      ANTCS1H Islam and Religious Action
      ANTC51H Muslim Societies
      CLA801H Classical Mythology I: Myths of the Gods
      CLA802H Classical Mythology II: Myths of the Heroes
      ENG802H The Bible and Literature I
      ENG803H The Bible and Literature II
      HIS806H The Sixteenth Century Religious Reformation
      HIS807H The Crusades I
      HIS808H The Crusades II
      HUMC10H The Five Books of Moses
      HUMC11H Religion and Language
      HUMC12H Religious Pluralism
      HUMC14H The Gospels
      PHLB40H Introduction to Chinese Philosophy
      PHLB40H Introduction to Buddhist Philosophy
      PHLC40H The Nature of Buddhist Ethics
      PHLC42H Confucianism
      SOCC31H Sociology of Religion
      VPH855H Religion and the Arts I
      VPH856H Religion and the Arts II
HUMB303H Religious Traditions of the West
An introductory study of Judaism, Christianity, and Islam.
The purpose of this course is to introduce the three major religious traditions that emerged in the Near East and have come to dominate the Western world today. The course is primarily descriptive, with an emphasis on history, beliefs, practices, and writings.
Exclusion: RLG100Y

HUMB304H Religious Traditions of the East
An introductory study of the religious traditions of India, China and Japan.
The purpose of this course is to provide a brief introduction to the Hindu, Jain, Sikh, Buddhist, Confucian, Taoist, and Shinto religions. The course is primarily descriptive with an emphasis on history, beliefs, practices, and writings.
Exclusion: RLG100Y

HUMC103H The Five Books of Moses
This course will examine the origins, structure, content, religious (Jewish, Christian, and Islamic) interpretation, and academic analysis of the first five books of the Hebrew Bible, or Old Testament. These books constitute the documentary basis for the three Abrahamic religions. Prerequisite: HUMB303H

HUMC113H Religion and Language
This course provides students with an opportunity to explore the relationship between language and religion, through coverage of topics such as the deciphering and interpretation of ancient texts, the preservation of formal religious language, the translation of scrupus into vernacular languages, and the use of scripture in popular literature. Prerequisite: HUMB303H & HUMB304H

HUMC124H Religious Pluralism
This course will examine the phenomenon of religious pluralism in the modern world, with an emphasis on how the intersection of national, cultural, ethnic, social and religious heritages and ideologies plays out in everyday life.
Prerequisite: HUMB303H & HUMB304H

HUMC146H3 The Gospels
An introduction to the scriptural foundations of Christianity through an exploration of the life and message of Jesus as presented in the four gospels.
Exclusion: RLG241Y
Prerequisite: HUMB303H

HUMD91H3
HUMD92H3
HUMD93H3 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 due by 15 April for "T" and "Y" courses and by 1 December for "S" courses. If the proposal is approved, two faculty members from relevant disciplines will supervise and evaluate the work.
Exclusion: (HUMC91H3) or (HUMC93H3)
Prerequisite: Three B-level full-credit equivalents in the Department of Humanities.

Industrial Microbiology
(B.Sc.)

SPECIALIST (JOINT) PROGRAM IN INDUSTRIAL MICROBIOLOGY
Supervisor: Until June 30, 2005: R. Fulthorpe (416-287-7221) Email: fulthorpe@atc.utoronto.ca
From July 1, 2005: TBA
This program is offered in collaboration with the School of Engineering Technology and Applied Science at Centennial College. The program may be taken in partial fulfillment of the requirement of an Honours B.Sc. Degree. In addition to completing the requirements for the degree, students will qualify for a diploma from Centennial College.

Program Admission
Limited enrolment. For application procedures, see the Joint Programs with Centennial College section of this Calendar.

Program Requirements
The program requires the completion of 16 full credit equivalents (FCE) as follows. Please note that 20 FCEs are required to complete an Honours Degree.
Course with the designators IMC and /STE are taught at Centennial's campus.

1. 3.5 FCE:
BGYA00H Introduction to Biology: Part I
BGYA02H Introduction to Biology: Part II
CHMA10H Introductory Chemistry I: Structure and Bonding
CHMA11H Introductory Chemistry II: Reactions and Mechanisms
MATA33H Calculus I (grade 12)
or
MATA33H Calculus I (OAC)
or
MATA33H Calculus II for Biological Sciences
or
MATA34H Calculus II for Physical Sciences
or
STAB21H Statistics
or
PSCE17H Introduction to Scientific Computing

2. 2.0 FCE:
BGYB10H Cell Biology
BGYB11H Aspects of Cellular and Genetic Processes
CHMB41H Organic Chemistry I
CHMB42H Organic Chemistry II

3. 3.0 FCE:
IMCB01H Microbiology Basics*
IMCB02H Microbial Techniques*
IMCB03H Lab Instrumentation*
IMCB04H Food Microbiology*
IMCB09H Microbiology Project*
STE070H Analytical Chemistry and Applications*

4. 1.5 FCE:
IMCB06H Pharmaceutical Microbiology*
IMCB07H Food Chemistry*
IMCB08H Biochemistry and Applications I*

5. 1.5 FCE from the following list:
BGYB30H Mammalian Physiology I
BGYB31H Plant Physiology
BGYB50H Ecology
BGYC15H Genetics
EESB161H Feeding Humans - the Cost to the Planet
IMC801SH Microbiology Basics
Basic principles of microbiology including study of microscopic organisms (bacteria, viruses, protozoa, algae, and fungi), the isolation, cultivation and identification of microbes, host-parasite relationships as they relate to disease, microbial and molecular genetics, growth and control of microbes, and the human immune response to microbes. Limited to students in the Joint Program in Industrial Microbiology or the Joint Program in Environmental Science and Technology. Exclusion: BGYC17H, MBB376H, MBB377Y
Prerequisite: [BGYAO11H & BGYAO21H] or (BGYAO17Y)

IMC802SH Microbial Techniques
Practical applications of the concepts covered in IMC801H. Limited to students in the Joint Program in Industrial Microbiology. Exclusion: BGYC17H, MBB376H, MBB377Y
Prerequisite: [BGYAO11H & BGYAO21H] or (BGYAO17Y)
Corequisite: IMC801SH

IMC803H 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 Industrial Microbiology. Prerequisite: [CHMA41H & CHMA11H] or (CHMA01Y)

IMC804H Food Microbiology
An introduction through theory, lab, and field 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 Industrial Microbiology. Prerequisite: IMC801H3

IMC805H 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 Industrial Microbiology. Prerequisite: IMC801H & IMC802H

IMC806H Pharmacological 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 Industrial Microbiology. Prerequisite: IMC804H

IMC807H 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 Industrial Microbiology. Prerequisite: CHMB42H

IMC808H 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 acids, titration of amino acids, and isolation of casein from milks. Limited to students in the Joint Program in Industrial Microbiology. Exclusions: BGYC131H, BCH310H, BCH320Y, BCH321Y
Prerequisite: CHMA42H

IMC809H 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 Industrial Microbiology. Prerequisite: IMC805H & IMC806H

IMC810H 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 Industrial Microbiology. Prerequisite: IMC810H

IMC811H 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/anerobic 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 Industrial Microbiology. Exclusion: BGYC131H, BCH310H, BCH320Y, BCH321Y
Prerequisite: IMC808H

IMC812H Environmental Microbiology
Fundamental microbial ecology studied in theory and applied in lab experiments. Students will characterize, assess and monitor ecosystems. Individual and group activities will include collection and testing of natural and polluted water and soil. Limited to students in the Joint Program in Industrial Microbiology. Prerequisite: IMC810H

STE807H Analytical Chemistry and Applications
(See the Environmental Science and Technology section of this Calendar for a full course description.)
International Development Studies (B.A./B.Sc.)

Faculty List
A. Berry, B.A. (Western), M.A. (Yale), Ph.D. (Princeton), Professor Emeritus
J. Boddy, B.A. (McGill), M.A. (McGill), Ph.D. (Fraser), Professor
R.B. Bryan, B.A. (Trinity), Ph.D. (McGill), Professor
M. Lambek, B.A. (McGill), M.A., Ph.D. (Michigan), F.R.S.C., Professor
E. C. Ralph, B.A., M. Phil. (London), Ph.D. (Toronto), Professor
J. Teichman, B.A., M.A., Ph.D. (Toronto), Professor
A. E. Bin, B.A. (Harvard), M.A. (University of California), Sc.D. (Johns Hopkins), Canada Research Chair in International Health, Associate Professor
M. F. Benge, B.A., Ph.D. (Sheffield), Associate Professor
R.R. Fulford, B.Sc., M.Sc., Ph.D. (Carleton), Associate Professor
P.C. Hsuang, B.A. (National Chiao-tung University), M.A. (Columbia University), M.A. (UCI), Ph.D. (UCI), Associate Professor
P. Kingston, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor
A. G. Price, B.Sc. (Wales), M.Sc., Ph.D. (McGill), Associate Professor
N. ten Kortenaar, M.A., Ph.D. (Toronto), Associate Professor
S. Bamford, B.A. (Toronto), M.A. (McMaster), M.A., Ph.D. (Virginia), Assistant Professor
G. Fraser, M.A. (Toronto), Ph.D. (Yale), Assistant Professor
P. Lindo, B.A., M.A. (York), M.A., Ph.D. (Johns Hopkins), Assistant Professor
K. MacDonald, B.A., M.A., Ph.D. (Waterloo), Assistant Professor
C. Nestor, B.A., M.A. (Lund), Ph.D. (Geneva), Assistant Professor
S.J. Rockl, M.A., Ph.D. (Toronto), Assistant Professor

SPECIALIST (CO-OPERATIVE) PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (B.A./B.Sc.)
Supervisor of Studies: P. Kingston (416-287-7305) Email: kingston@chass.utoronto.ca
Co-op Coordinator: C. Meffat (416-287-7113) Email: meffat@arts.utoronto.ca

IDS Mission Statement
The Co-operative Program in International Development Studies at University of Toronto at 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 economic sciences and humanities with a practical work experience in a developing country. IDS students graduate with an Honours B.A. or B.Sc. with a Specialist certification in International Development Studies.

Objectives
1. To provide students with a broad understanding of different development paths, the international and domestic factors affecting their success, and the importance of sustainability.
2. To develop cross-cultural sensitivities and an awareness of the reality of developing nations - their cultures and their socio-economic and political systems, issues of poverty and social justice both national and international - which will allow them to develop the necessary skills for work in international development.
3. To provide a practical work experience in a different culture under the supervision of a Canadian or Southern Non-Governmental Organization (NGO), research institute, multilateral agency or private partner.
4. To provide 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.

5. To develop partnerships with organizations and individuals in the South interested in international development.
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 applicants' academic performance, background in relevant subjects, language skills, experience or interest in international development studies and work, and a letter of reference from a high school teacher or university instructor. For information on admissions, fees, work placements and standing in the Program, please see the Co-operative Programs section of this Calendar.

Work Placement
This Program requires twenty courses (four years of study) and a work term of approximately eight to twelve months duration. The work term will normally begin no sooner than the end of the third year and no later than January of the fourth year of the Program.
The majority of students obtain placements with Canadian employers - Canadian development agencies (NGOs), research institutes or private sector consulting firms. The location of the placements will vary according to each student's disciplinary and regional preferences and abilities, the availability of positions, and the practicability and safety of development work. Students who wish to carry out their placement in a developing country where there is no Canadian employer working, may be asked to finance the living allowance expenses of the placement themselves.
The IDS work placement is an integral part of the Co-op curriculum and is designed to provide students with practical hands-on experience of the development process in a Third World field setting. Students are placed as interns with Canadian or local development agencies or universities in a developing country for a 10-12 month period. Students are required to submit progress reports every 2 months and begin work on a major research project based on their work placement experience. To be eligible for placement, students must have completed 14.5 full-course equivalents including 12 IDS credits. These 12 must include 6 credits from sections A and B (of which at least 3 must be from Section A) plus regional and language requirements and the completion of the Introduction to IDS Co-op Tutorial (see below). The IDS work placement normally begins after the third year of study and requires a minimum of 2 years of residence in the Program. Extra course credit of 6.5 full-course equivalent is granted for each four-month work period. Work term credits are in addition to the 20 full-course degree requirement and are graded on a Credit, No Credit system.
In addition to submitting a detailed examination of their placement, students will participate in a one day placement de-briefing session with the IDS administrators.

Introduction to IDS Co-op Tutorial
Students participate in a non-credit co-op tutorial, commencing at the end of the year in which they complete 10 FCE, 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 IDS601Y 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
Courses:
All students must complete:
- A common core program (at least six and one-half full credits) in the environment and social sciences.
- An advanced option (at least five full credits) in either the social or environmental streams (Section B below).
- A regional language and culture option (Section C below) (at least 2 full credits).
1. Social Science Stream:
Five full credits from:
ANTC001H African Cultures and Societies I: Survey
ANTC010H Political Ecology
ANTC191H Varieties of Social Life
- ANTD001H Culture, Politics and Globalization
ANTC154H Peoples of the Middle East: An Introduction
ANTC061H African Cultures and Societies II: Case Studies

- EDS001Y, an advanced seminar related to their work placement experience (Section D below).
- Other elective credits (Section D below).
In the first two sessions of study students must complete as much of the common core program and language study as possible. Students must choose their regional and language option (Section C) no later than session 2; and their advanced option no later than the beginning of session 3. Students are also strongly advised to complete at least one full credit in core program science courses each academic session prior to placement.
Each student's program requires the annual approval of the Supervisor of Studies. In addition, all credit changes must be approved by the Supervisor of Studies.

The curriculum requirements are as follows: Twenty full credits including:

A. Core Program: at least six and one half full credits from the following:

- ECM01H Introduction to Microeconomics
- ECM02H Introduction to Macroeconomics

(Students may take as a substitute the mathematical versions of the above credits: ECM04H & ECM06H)

- EES01H Introduction to Environmental Science
- EES04H Principles of Hydrology

or

- EFS10H Principles of Soil Science
- FOR20H Conservation and Management of World's Forests II (St. George)
- DSIB01H International Development Studies: Political Economy
- DSIB02H International Development Studies: Development and Environment
- DSIC04H Project Management I
- POLB09H Comparative Development in International Perspective
- POLB11H Comparative Development in Political Perspective
- [ANTB05H Health and the Urban Environment]

or

- [HUT00H Health, Aging and the Life Cycle]
- [HUT03H Issues in Child Health and Development]
- [ANTC01H Anthropology of Development]
- POLC06H Development Studies: Political and Historical Perspectives

or

- SOSC02H Comparative Ethnic and Race Relations
- WSTC93H Women and Development

(1.5 FCE in Research Methods or Statistics (Possible options include ANTC001H, POLC78H, SOSC48H and/or SOSC41H and STAB22H which is recommended for students interested in the B.Sc.)

B. Advanced Options: at least five full credits chosen from either A or B below:

(Students who follow the Environmental stream will be recommended for a B.Sc. degree and those who follow the Social Sciences stream will be recommended for the B.A. degree.)

- ANTC001H Anthropological Perspectives on Development (if not taken in the 'core')
- ANTC14H Feminism and Anthropology
- ANTC15H Gender and Sexualities
- ANTC191H Producing People and Things: Economies and Social Life
- ANTC155H Muslim Societies
- ANTC166H Fieldwork in Social and Cultural Anthropology
- ANTC161H Medical Anthropology: Illness and Healing in Cultural Perspective
- ANTC162H Medical Anthropology: Biological and Demographic Perspectives
- ANTC163H The Anthropology of Food: Human Needs
- ANTC164H The Anthropology of Food: Consuming Passions
- ECM01H Price Theory
- ECM03H Macroeconomic Theory and Policy
- ECO230V International Economic Institutions and Policy
- ECM06H Economic Development
- ECM97H Development Policy
- ENGB1H Contemporary Literature from the Caribbean
- ENGB19H Contemporary Literature from South Asia
- GGR20H Issues in Rural Development
- GGRC91H Agricultural, Environment and Development
- GGRC45H Local Geographies of Globalization
- GGRC46H Tourism, Environment and Development
- HIS491H The Twentieth-Century World I (exclusion POLB09H & POLB11H)
- HIS02H The Twentieth-Century World II (exclusion POLB09H & POLB11H)
- HSPC58H Africa in the Nineteenth Century
- HSPC58H Twentieth Century Africa
- HSPC52H A Social History of Ethiopia
- HSPC53H Topics in Asian History
- HISD05H Southern Africa: Colonial Rule, Apartheid, and Liberation
- HISD02I East African Societies in Transition
- HLT02H Women and Health: Past and Present
- DSIB04H International Health Policy Analysis
- EDS001H Economics of Small Enterprise and Micro-credit
- DSIC07H Ethics of Development
- DSIC06H Directed Research on Canadian: Institutions and International Development
- DSIC07H Project Management II
- DSIC10H Topics in International Development Studies
- DSIC11H Issues in International Health
- INU20Y National & International Environmental Policy Making
- STB01H International Studies and International Communications
- PHLB081H Ethics and International Affairs
- PHLCS41H Postcolonial Studies in Philosophy
- POLB05H Introduction to International Relations (exclusion (HST00Y))
- POLB01H International Conflict and Conflict Management (exclusion (HST00Y))
- POLC101H Political Analysis I
- POLC88H The New International Agenda
- POLC80H Development Studies: Political and Historical Perspectives (if not taken in the 'core')
- POLC111H Latin America: Dictatorship and Democracy
- POLC59H International Political Economy of Trade
- POLC06H Politics and Society in the Middle East I
- POLC07H Politics and Society in the Middle East II
- POLC09H Latin America: Politics of the Dispossessed
- POLY01H Government & Politics in Africa
- POLD78H Political Analysis II
- POLD88H Exploring the New International Agenda
2. Environmental Stream
Five full-credits from
- ANTV03 Tropical Ecology and Evolution
- BGYC53H Marine Biology
- BGYC568 Limnology
- BGYC599 Advanced Population Ecology
- BGYC63H Conservation Ecology
- BGYC658 Environmental Toxicology
- BTO3451 Topics in Applied Ecology
- EES3621 Principles of Geomorphology
- EES4031 Principles of Climatology
- EES4041 Principles of Hydrology (if not taken in the core)
- EES4551 Principles of Soil Science (if not taken in the core)
- EES4091 Bioclimatology - Environmental Implications
- EES4160 Food Habits - The Cost to the Planet
- EESC301H Geographic Information Systems and Remote Sensing
- EESC401 Biodiversity and Biogeography
- EESC431 Environmental Impact Assessment and Auditing
- EESC461H Field Camp I
- EESC5061 Climatic Change Impact Assessment
- EESC567H Process Hydrology
- EESC571H Catching up with Our Water: Remediation of Terrestrial and Aquatic Environments
- GGR3038 Biogeography
- GGRI35H Cultural Biogeography
- GGR393H Environmental Impact Assessment
- IDGC551H Geometric Development
- IDGC640 Directed Readings on Canadian Institutions and International Development
- SOCIE201H Environmental Economics
- ZOO3768 Environmental Factors

C. Regional and Language Options:
At least two full-credits chosen from credits dealing with a designated development region.

D. Required:
- IDSD01Y International Development Studies: Advanced Seminar
  and
Any five and one-half credits which satisfy the degree requirements.
INTERFACULTY COMBINATION PROGRAM IN INTERNATIONAL DEVELOPMENT AND ENVIRONMENTAL STUDIES

Supervisor of Studies: P. Kingston (416-287-7305) E-mail: kingston@chass.utoronto.ca

This is an Interfaculty Program for UTSC students wishing to pursue the Specialist (Co-op) Program in International Development Studies in conjunction with a Major in Environmental Studies, from Innis College. Students registered in the Specialist or Major in Environmental Studies at Innis College may choose also to complete the requirements for a Major in International Development Studies offered by the University of Toronto at Scarborough.

Program Admission

This is a limited enrolment Program. Students already registered in the Specialist (Co-op) Program in International Development Studies must ballot for the Interfaculty Program.

Program Requirements

See the University of Toronto Calendar for Program requirements at: www.artssci.utoronto.ca/ofc/calendar. Look also for Environmental Studies under Innis College.

Program Counsellor: David Powell (416-971-5141) Email: david.powell@utoronto.ca

IDS601H International Development Studies: Political Economy

Introduces students to major development problems, focusing on international economic and political economy factors. Examines trade, aid, international institutions such as the World Bank, the IMF and the WTO. Examines both conventional economic perspectives as well as critiques of these perspectives. This course can be counted for credit in ECM Programs. Limited enrolment: 170

Exclusion: ECDO30Y

Prerequisite: [ECMA04H & ECMA05H] or [ECMA04H & ECM036H] or [ECMA02Y] or [ECMA03Y]

IDS602H International Development Studies: 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. Limited enrolment: 170

Prerequisite: EESA01H

IDS604H3 International Health Policy Analysis

This course explores institutional, economic, social, epidemiological, ideological, and political forces in the field of international health. Key topics include political economy of health and development, distribution of disease; social determinants of health; financing and organization of health systems; international health agencies; role of civil society, and globalization and health. Prerequisite: 5.0 full credits

IDS605H3 Economics of Small Enterprise and Microcredit

Considers the role of micro- and small/medium enterprise in the development process, as compared to the larger firms. Identifies the role of smaller enterprises in employment creation and a more equitable distribution of income. Examines policies which can contribute to these outcomes, including micro-credit. This course can be counted for credit in ECM Programs. Limited enrolment: 60

Prerequisites: [ECMA01H & ECMA05H] or [ECMA01H & ECM036H] or [ECMA02Y] or [ECMA03Y]
IDS504H3 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: [IDS601H1 & IDS602H3] or ISTB01H3

IDS505H3 The Ethics of Development
Examines the theoretical foundations of ethics of development, particularly the ethics of aid and intervention. Considers the policies and practices of major international institutions, national governments, and independent NGOs. Case studies will be used to evaluate the ethical dimensions of specific projects and policies.
Prerequisite: [IDS601H1 & IDS602H3] or [ANTH191H1 & ANT120H1] or [ANT120Y1] or [PIL101H1] or [PIL102H1]

IDS506H3 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 IDS504H1. Students must obtain consent from the Supervisor of Studies before registering for this course.
Prerequisite: IDS601H1 & IDS602H3 & permission of the instructor
Corequisite: IDS504H1 recommended

IDS607H3 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; risk management; environmental impact assessments; cross-cultural effectiveness; and gender and development.
Prerequisite: IDS504H1

IDS5108H3 Topics in International Development Studies
Contents to be determined by instructor.
Prerequisite: IDS501H1 & IDS502H3

IDS5109H3 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 reforms. Next, students develop group projects designed to raise awareness around particular international health problems. The third phase involves individual research projects and class presentations.
Limited enrolment: 35
Prerequisite: IDS504H1

IDS6011Y3 International Development Studies: Advanced Seminar
Normal enrolment in this course will be made up of IDS students who have completed their work placement. Each student will give at least one seminar dealing with their research project and/or placement. The research paper will be the major written requirement for the course, to be submitted no later than mid-March. The course will also include seminars by practicing professionals on a variety of development topics.
Prerequisite: Students must have completed the first two years of the IDS Specialist Program or its equivalent and have completed their placement. Also, permission of the instructor is required.

IDS614H3

IDS515H4 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: IDS601H1 & IDS602H3 & permission of the instructor.

International Studies (B.A.)
Faculty List
E.W. Dowler, A.M., (Harvard), Ph.D. (London School of Economics), Professor
A. Rubinson, A.B., (Albany), M.A., Ph.D. (Chicago), Professor
S. Solomon, B.A. (McGill), M.A., Ph.D. (Columbia), Professor
J. Teichman, B.A., M.A., Ph.D. (Toronto), Professor
P. Kingston, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor
S.J. Rock, M.A., Ph.D. (Toronto), Assistant Professor
L. Chan, B.A., M.A., Ph.D. (Abb) (Toronto), Lecturer

Discipline Representative/Supervisor of Studies: L. Chan (416-287-7511)
E-mail: chan@utsc.utoronto.ca

Canada is increasingly affected by international forces, including international treaties and institutions, trade, financial flows and communications. Since Canada is a country of recent immigration, many Canadians still retain ties to their country of origin. This program helps to prepare students for working and for undertaking graduate study in an increasingly international environment.

The International Studies curriculum contains courses from political science, history, languages, economics and geography, as well as courses dealing with new media/communications technology and regional studies. The International Studies Program complements well a major in these listed disciplines. Students can opt to enrol in the Major Program in International Studies, or apply for the limited enrollment Co-op Program in International Studies.

MAJOR (CO-OPERATIVE) PROGRAM IN INTERNATIONAL STUDIES
Co-op Contact: R. Louden E-mail: utscoop@utsc.utoronto.ca

This Program combines academic study with work experience in the private sector, in government, in research institutions, in non-governmental organizations and possibly with international organizations, focused on international work. Work terms may be in Greater Toronto, elsewhere in Canada, and possibly abroad. The Program aims to provide a minimum of two work terms, each of 16 weeks. Students follow the same curriculum as the Major Program in International Studies, see below, however, in the Co-op Program they must also enrol in a Major in another discipline. The Co-op Program is a limited enrollment Program. For information on admissions, fees, work terms, and standing in the program, please see the Co-operative Program section of this Calendar.

Program Requirements
Students follow the same curriculum as the Major Program in International Studies, see below, except that they must include at least one full credit in language (other than English) or one half-credit in computer courses (CSCA20H, CSCA20H, VPA200H) among their choices.

Work Terms
Students are eligible for the first work term, students must have completed at least 10 FCEs (full credit equivalents), including 5 FCEs in a University of Toronto at Scarborough student and complete the Arts & Science Work Term Preparation course. Students are advised that being available for work terms during fall and winter may increase the variety of work available; and this in turn requires students to take courses during at least one summer session.
Courses which must be completed prior to the first placement include:
IDS601H1, POL308H1, POL381H1, and either the full credit in language (other than English) or the half-credit in computers (CSCA20H, CSCA20H, VPA100H)
MAJOR PROGRAM IN INTERNATIONAL STUDIES

Program Requirements
The program requires the completion of 7 full credits including:
1. ECOM501H Introduction to Microeconomics
   or
   ECOM404H Introduction to Microeconomics; A Mathematical Approach
2. ECOM505H Introduction to Macroeconomics
   or
   ECOM406H Introduction to Macroeconomics; A Mathematical Approach
3. IDSC340H Project Management I
   or
   IDSC307H Project Management II
4. ISTD80H1 International Studies and International Communications
5. POLB90H1 Introduction to International Relations
   and
   POLB81H1 International Conflict and Conflict Management
6. At least 1 full credit in any language (other than English)
   or
   At least 1 full credit from the following list:
   CSECA328 The Why and How of Computing
   CSCA308H Introduction to Computer Programming
   HIS401H The Twentieth Century World I
   HIS402H The Twentieth Century World II
   IDSC80H1 International Development Studies: Political Economy
   VPA808H Computers and the Arts I
7. At least 3 full credits from one of the following two streams (which must include at least one full credit at the C-level):

Stream 1: International Culture and Communication Stream
1 additional full credit in language other than English (up to 2 full credits in language can be counted for the Program)
1 full credit in regional courses (to be approved by Supervisor; suitable courses exist in many Humanities and Social Science disciplines)
IDSC506H Directed Research on Canadian Institutions and International Development
ISTD90H1 Readings in International Studies
NMEA250H Introduction to New Media in Humanities and Social Sciences
NMER309H Design in Virtual Culture
POLB83H1 The New International Agenda
POLB88H1 Exploring the New International Agenda
SOCB558P Sociology of Mass Media and Communications I
SOCB557P Sociology of Mass Media and Communications II

Stream 2: International Political Economy
ECMC410H International Economics: Finance
ECMC420H International Economics: Trade
ECMC460H Economic Development
ECMC470H Development Policy
GGRB350H Urban Geography
GGRG350I Problems in Modern Agricultural Land Use
GGRG451I Local Geographies of Globalization
IDBS40H1 International Health Policy Analysis
IDSC60H1 Directed Research on Canadian Institutions and International Development
ISTD90H1 Readings in International Studies

Note: Courses marked * have prerequisites and students in limited enrollment programs in these disciplines have priority.

ISTD80H3 International Studies and International Communications
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.
Limited enrolment: 40 per section (preference will be given in the first round of registration to students enrolled in IST programs).
Prerequisite: 5.0 full credits

Journalism (B.A.)

Faculty List
M. Maltese, B.A. (Dalhousie), Ph.D. (London), Assistant Professor
K. McCrindle, M.A. (Toronto), Ph.D. (Toronto), Lecturer

SPECIALIST (JOINT) PROGRAM IN JOURNALISM
Supervisor of Studies: K. McCrindle (416-287-7138) Email: k.mccrindle@utoronto.ca
This program may be taken in fulfillment of the requirements of a four-year (20-credit) Honours B.A. Degree. In addition to completing the requirements for the degree, students have the option of qualifying for a diploma from Centennial College by undertaking one additional semester in a field placement and completing a short non-credit course on journalism career management at Centennial.

Program Admission
Limited enrolment. Applicants must fill out a joint program application form, which is available online at http://www.arts.utoronto.ca/jointprograms.
Program Requirements

a) JOUA3H Introduction to Journalism

b) (International Perspective) 1.0 full credit equivalent from:
   ANTR48H Peoples of the Middle East: An Introduction
   ANTE25H Muslim Societies
   ENGBH1H Contemporary Literature from the Caribbean
   ENGBH9H Contemporary Literature from South Asia
   ENGBH2H Contemporary Literature from Sub-Saharan Africa
   ENGBH8H The Immigrant Experience in Literature I
   ENGBH1H The Immigrant Experience in Literature II
   FREB28H The Francophone World
   FREB55H Francophone Literature
   FREC47H Special Topics in Linguistics: Pidgins and Creole Languages
   FREC53H Cultural Identities and Stereotypes in the French-Speaking World
   HIS450H The Twentieth Century World I
   HIS450H The Twentieth Century World II
   HUMS03H Religious Traditions of the West
   HUMS04H Religious Traditions of the East
   IDS001H International Development Studies: Political Economy
   IDS001H International Development Studies: Development Environments
   IDS004H International Health Policy Analysis
   PHIL41H Introduction to Chinese Philosophy
   POL321H Introduction to Buddhist Philosophy
   POL490H Introduction to International Relations
   POL490H International Conflict & Conflict Management
   POL490H Comparative Development in International Perspective

c) (Canadian Perspective) 1.0 full credit equivalent from:
   ANTB41H Canadian Cultural Identities
   ANTC21H Canadian Native Peoples: Traditional Values
   ANTC22H Canadian Native Peoples: Contemporary Concerns
   ECMC01H Introduction to Microeconomics
   ECMC02H Introduction to Macroeconomics
   ENGB03H Canadian Literary Traditions
   ENGB07H Nation in Canadian Writing
   ENGB23H Canadian Short Story
   FREB22H Society and Culture of Quebec
   FREB34H The Twentieth Century Quebec Novel
   FREB37H Contemporary Quebec Drama
   HIS40H Canadian History to 1885
   HIS41H Canadian History since 1885
   HISC45H Immigrants and Race Relations in Canadian History
   POLA11H Critical Issues of Canadian Democracy
   POLA18H Leaving Home: Politics and Emigration
   POLB50H Canada's Political Institutions
   POLC52H Canadian Politics: Connecting Citizens and Governments

d) (Environmental Perspective) 1.0 full credit equivalent from:
   BOYA61H Introductory Biology: Part I
   BOYA62H Introductory Biology: Part II
   EEOA30H Environmental Science
   EEEA35H Environmental Hazards
   EEOA40H Introduction to Planet Earth
   GGRA32H Geography of Global Processes
   GGRA33H Cities and Environments
   GGGG53H Local Geographies of Globalization
   GGGG54H Tourism, Environment and Development
   POLC35H Canadian Environmental Politics

Note: Courses that satisfy the requirements of one Major or two Minor Programs, which may include courses used to satisfy requirements (a) through (d) above.

JOUA52H Critical Journalism

b) At least 2 full credits at the C- or D- level, which may include courses used to satisfy requirements (a) through (e) above.

i) Journalism Group 1 — students will be eligible to enrol in these courses after successfully completing at least 10 full credits at University of Toronto at Scarboro (or permission of the Supervisor of Studies), including at least three of requirements (a) through (d) above.

This group of courses should be taken concurrently.

JOUA60H Journalism Law & Ethics*

JOUB1H News Reporting*

JOUB4H Page Design*

JOUB4H Imaging: Journalism*

j) Journalism Group 2 — students will be eligible to enrol in these courses after successfully completing Group 1 above.

JOUB5H Magazine Journalism*

JOUB5H Advanced Interviewing Techniques*

JOUB9H Journalism Copy Editing*

JOUB1H Newspaper Laboratory 1*

JOUB1H News for the Electronic Media 1*

k) Journalism Group 3 — students will be eligible to enrol in these courses after successfully completing Group 2.

JOUC1H Beat Reporting*

JOUC1Y Newspaper Laboratory 2*

JOUC1H News for the Electronic Media 2*

A grade of C- is required in these courses to maintain standing in the program.
JOUA6193 Introduction to Journalism
An introduction to the social, historical, and philosophical contexts of the media. The course will examine various types of media and the role of the journalist. Media coverage of current issues will be discussed. Projects for publication or broadcast on campus media outlets will be assigned. This course is taught at UTSC and is open only to students in the Joint Program in Journalism. Limited enrollment: 30

JOUA6693 Journalism Law and Ethics
An examination of the key legal and ethical issues facing Canadian journalists, with an emphasis on the practical. This course is taught on the Centennial campus and is open only to students in the Joint Program in Journalism. Limited enrollment: 25
Prerequisite: 10 credits

JOUB5393 Magazine Journalism
An introduction to developing and selling quality magazine stories. 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. This course is taught on the Centennial campus and is open only to students in the Joint Program in Journalism. Limited enrollment: 25
Prerequisite: 12 credits, including JOUA6693 & JOUB111H & JOUB149H & JOUB141H
Corequisite: JOUB5393 & JOUB509H & JOUB120H & JOUB171H

JOUA6993 Copy Editing
A practical course in the skills needed to prepare news copy for publication. Emphasis is on making mechanical, factual and contextual correction; improving story leads and organization; and forging positive relationships with reporters. Each participant is responsible for producing publishable copy, alone and as part of a team. This course is taught on the Centennial campus and is open only to students in the Joint Program in Journalism. Limited enrollment: 30
Prerequisite: 12 credits, including JOUA669H & JOUB111H & JOUB149H & JOUB141H
Corequisite: JOUB509H & JOUB539H & JOUB120H & JOUB171H

JOUB151H News for the Electronic Media I
Practical journalism experience writing for "The Observer," a community newspaper published six times per semester for readers in East York and produced entirely by the Journalism program. Class time is for staff meetings, setting agendas, assignments and deadlines. Students work independently on stories, including research, writing, photography, and electronic production. This course is taught on the Centennial campus and is open only to students in the Joint Program in Journalism. Limited enrollment: 25
Prerequisite: 12 credits, including JOUA669H & JOUB111H & JOUB149H & JOUB141H
Corequisite: JOUB509H & JOUB539H & JOUB120H & JOUB171H

JOUB111H News Reporting
Practice in 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 experience and current issues in journalism. This course is taught on the Centennial campus and is open only to students in the Joint Program in Journalism. Limited enrollment: 25
Prerequisite: 12 credits, including JOUA669H & JOUB111H & JOUB149H & JOUB141H
Corequisite: JOUB509H & JOUB539H & JOUB120H & JOUB171H

JOUB1493 Page Design
An introduction to layout and desktop publishing. The course develops the skills needed to produce good-looking newspaper pages that reflect sound news judgment. Students experiment with a variety of layouts, including broadsheet and tabloid formats, in preparation for experience on the in-house newspaper, "The Observer." This course is taught on the Centennial campus and is open only to students in the Joint Program in Journalism. Limited enrollment: 35
Prerequisite: 1.0 FCEs including JOUA669H or permission of instructor.

JOUB1313 Hoot Reporting
An advanced course in covering a specific "beat." Students work in teams to select a topic, conduct preliminary research, and prepare a proposal. Students then research and write a series of five stories each on their beat for publication in tabloid newspaper or magazine format. This course is taught on the Centennial campus and is open only to students in the Joint Program in Journalism. Limited enrollment: 15
Prerequisite: 14.5 credits, including JOUB603H, JOUB659H, JOUB695H, JOUB101H, JOUB171H
Corequisite: JOUC161Y & JOUC171H

JOUC161Y Newspaper Laboratory 2
Practice using techniques learned in other program courses in order to produce content for "The Observer." At JOUB101H, students produce six issues per semester, but they play a more senior role and devote more time. Students attend staff meetings during class time, and research and write stories outside class. This course is taught on the Centennial campus and is open only to students in the Joint Program in Journalism. Limited enrollment: 25
Prerequisite: 14.5 credits, including JOUB603H & JOUB659H & JOUB695H & JOUB101H & JOUB171H
Corequisite: JOUC171H

JOUC171H News for the Electronic Media 2
An introduction to the production of television news wrap-around report. Students learn how to shoot, write, and edit TV news stories that communicate information clearly and stylishly. Students produce television news stories independently and in teams. This course is taught on the Centennial campus and is open only to students in the Joint Program in Journalism. Limited enrollment: 25
Prerequisite: 14.5 credits, including JOUB603H & JOUB659H & JOUB695H & JOUB101H & JOUB171H
Corequisite: JOUC171H & JOUC151Y
Languages

See the Languages and Linguistics section of this Calendar.

Languages and Linguistics

(French 183)

Faculty List

C. Bernard-Semons, L. de L. (Paris), Ph.D. (Wayne State), Professor Emeritus
L.E. Doucette, B.A. (London), Ph.D. (Brown), Professor Emeritus
P.R. Lebl, M.A., Ph.D. (Cornell), Professor Emeritus
C.V. Ponomareff, M.A., Ph.D. (Toronto), Professor Emeritus
R. Skyrme, B.A., M.Litt. (Bristol), M.A., Ph.D. (Michigan), Professor Emeritus
H. Wittman, M.A., Ph.D. (Mass.), Professor Emeritus
R.J. Binnick, B.A. (CUNY), M.A., Ph.D. (Chicago), Professor
E.A. Cowper, B.A. (McGill), A.M., Ph.D. (Brown), Professor
D.M. James, B.A. (U.B.C.), M.A. (Cornell), Ph.D. (Michigan), Associate Professor
S. Mittler, M.A. (Toronto), Ph.D. (Strasbourg), Associate Professor
J. Nadyrjajczyk, M.A. (Montreal-LQAM), Ph.D. (Montreal-LQAM), Associate Professor
R. Smyth, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor
R. Helms-Park, M.A., Ph.D. (Toronto), Assistant Professor
P. Riedeau, M.A., Ph.D. (Montreal), Assistant Professor
F. Mugnier, M.A., M.Litt. (London), Ph.D. (Geneva), Senior Lecturer
K. McCrindle, M.A. (Toronto), Ph.D. (Toronto), Lecturer

Discipline Representative: R. Binnick (416-287-7120)

The Languages and Linguistics discipline encompasses degree programs in both French (FRE) and Linguistics (LIN), as well as certain language courses (LLG) which are not associated with a specific degree. There is also a Specialist program in Management and French. The LLG courses currently include English for Academic Purposes (formerly ILM courses), French as a Second Language, Mandarin, and Spanish.

Registration in all language courses (all courses with the prefix LLG and language practice and conversation courses with the prefix FRE) is subject to the approval of the instructor. Students will be assessed, in a manner to be determined by the instructor, at the beginning of the course. Students whose level of proficiency in the language is deemed inappropriate for the level of the course will be excluded from the course.

French

(FRE841H, FREC44H, FREC47H), the development of approaches to the teaching of French (FREB29H, FREC11H); and the exploration of the rich literatures and cultures of French Canada, France and other parts of the francophone world.

The following Programs are offered at University of Toronto at Scarborough: A Minor Program in French; a Minor Program for francophone students; a Minor Program in French as a Second Language; a Major in French with four streams (French Studies, International French Studies, French and Business, French and the Arts), a Joint Specialist Program in Management and Language (see: Management); and the Specialist Program: Education of Teachers in French. (The Specialist Program in French, the Major Programs in French Language and Literature and the Major Program in French Language are no longer offered. Students already enrolled in one of these Programs will be able to complete it; please consult the Supervisor of Studies for further information).

French studies normally begin with FREA01H, Language Practice I, which serves to consolidate previous knowledge, and is the prerequisite for more advanced courses in all areas. FREA01H is designed primarily for students with Grade 12/OAC 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 FREB10H or FREC11H about the appropriate entry course(s). Students without Grade 12/OAC French or equivalent may wish to take LLGA21H, Introductory French I or LLGA22H, Introductory French II. Note that the Language Practice courses FREA01H and FREA02H, FREB01H and FREB02H, and FREC01H and FREC02H must be taken in sequence. Normally, an A-level FKE course should not be taken at the same time as, or after, a B-level FKE course. Therefore, 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 Supervisor of Study Elsewhere.

Students with Grade 12/OAC French who took Summer Bursary Program courses prior to attending U of T, must see the Supervisor of Study Elsewhere during the first week of classes. After assessing the course, the Supervisor of Study Elsewhere 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 Supervisor of Studies about possible exclusions if they are considering registering in French courses in the Faculty of Arts and Science or at UTM. Failure to do so may leave the student short a course for degree credit and thus delay graduation and increase tuition fees.

Note that two of our courses (FREB841H & FREC53H) are conducted in English; readings and assignments for these courses are done in French by those who wish credit toward a French Program and in English by those who wish general credit toward a degree.

The French Study Guide is available at:
http://www.utsc.utoronto.ca/37514stdnts/llg/llg_studyguide/index.html

SPECIALIST PROGRAM IN EDUCATION OF TEACHERS IN FRENCH

Co-ordinator: K. McCrindle (416-287-7138) Email: k.mccrindle@utoronto.ca

This eight-session Program is designed and offered jointly by the Department of Humanities, University of Toronto at Scarborough and the Ontario Institute for Studies in Education/University of Toronto (OISE/UT) in order to meet the need for French teachers at all levels in the school system. It provides a comprehensive education for those intending to continue their studies at OISE/UT as well as for anyone broadly interested in the teaching of French as a second language. Emphasizing both content and methodology, it includes academic courses in French and other subjects as well as practicum placements.
Program Admission

Students may apply to the Program directly from secondary school. When applying, they must indicate the special code for this LTNC Program on the Application for Admission to an Ontario University. Once the University of Toronto is notified of the application, candidates are sent information on how to download the supplementary application from our website; the supplementary application will require them to explain in French in approximately 200 words why they are interested in the ETPP.

UTSC, other U of T and transfer students may also apply to the Program after their first two sessions (or first year) of study. Consideration is given to overall achievement (a GPA of at least 2.5 in at least 8 credit courses is a minimum level) as well as achievement in French courses.

To remain in the Program, students must maintain a minimum average of 2.5. Students who successfully complete the Program and who meet the admission requirements of OSIEUT will be admitted to OSIEUT.

Several bursaries are available for study in France or Quebec.

Program Requirements

Students in this Specialist Program must complete a total of 20 full credits chosen from the two main categories below:

a) Ten full credits in French as follows:

1. Three credits consisting of FREA01H, FREA02H, FRED01H, FRED02H, FRED03H and ZRED03H (except where substitution of other French credits is permitted for students with special proficiency in the French language).

2. Two full credits selected from FRED44H, FRED45H, FRED46H, FRED47H, FRED48H.

3. One full credit selected from FRED22H, FRED27H, FRED28H.

4. Three full credits in literature which must include: one full credit in French Canadian literature; one full credit in French literature (FREC50H and FREC51H can fulfill this requirement); one half-credit in literature from other parts of the French-speaking world excluding France and Canada. Note: French courses taught in English cannot count towards this requirement.

5. FREC51H and FREC51H. FREC51H should be taken as early as possible to avoid timetable conflicts which might arise as a result of trying to schedule the practicum component of the course.

b) Ten further credits; students are advised to choose courses to suit the teaching program and teaching subjects in which they are interested. Information and advice will be available through the Program co-ordinator at UTSC and through counselling at OSIEUT. The following are recommended as general preparation for the OSIEUT B.Ed. Program:

1. a half-credit in educational psychology
2. a half-credit in language acquisition - LIN623H and LIN634H are recommended
3. a half-credit to develop computer skills

Practicum requirement

All Program registrants are required, during their final four sessions, to spend a minimum of one half-day per week engaged in a supervised classroom teaching experience. This experience will allow registrants to put into practice their understanding of the French language teaching methods presented in FRED11H and FREC11H. UTSC will help students arrange these practical placements in local elementary or secondary schools.

MAJOR PROGRAM IN FRENCH

Supervisor: S. Mittler (416-287-7150) Email: mittler@utsc.utoronto.ca

The major Program in French provides a simple structure that students can readily customize to meet their needs. The Supervisor of Studies welcomes opportunities to help students tailor this flexible Program to match their strengths and goals.

Program Requirements

Students must complete seven full credits in French, including:

1. FREA01H, FREA02H, FRED01H and FRED02H (except where the Supervisor of Studies permits substitution of other FREN courses for students with special proficiency in the French language).

2. One further full credit in language:


3. One full credit in literature and/or culture:

Literature courses are: FRED22H, FRED27H, FRED28H, FRED37H, FRED50H, FRED51H, FRED68H, FREC31H, FREC33H, FREC41H, FREC44H.

4. One additional full credit in French:

Students may create a "classic" major in French Studies with a language and literature focus by including FRED50H and FREC51H and one or one half further credits in literature in their Program.

Those wanting a major with a business focus should include one credit from among FRED53H, FREC50H and FREC52H as well as FRED18H, FRED19H and FREC51H in their Program.

Students wanting a major with international breadth should include one credit from among FRED55H, FREC51H and FREC52H as well as one credit in French and/or French Canadian and/or francophone culture (FRED50H and FREC51H can serve this purpose) and one half-credit in each of French, French Canadian and other francophone cultures.

Those wanting a major with arts and culture breadth should include two credits in literature and culture in addition to the courses used to fulfill requirement (3) of the major. Consult the Supervisor of Studies.

Students wanting a major with a linguistics focus, with the possible intention of French graduate school studies, should include two LIN credits in addition to French linguistics courses (FRED43H, FRED44H, FREC66H, FREC44H) used to fulfill requirement (2) of the major.

Students should also consider including FRED47H.

Note: Only courses for which the student does assignments in French can be counted towards a French Program, at the A-level, only FRED01H and FRED02H may be counted.

The Supervisor of Studies can provide students who complete a major in any of these streams (French Studies, French and Business, International French Studies, French and the Arts) with a letter explaining their Program. Such a letter could be useful when applying for a job or for admission to a post-BA Program. Students interested in graduate studies in French however, should be aware that they will probably need further course work in French.

Note: For Co-op opportunities related to the Major Program in French please see the Humanities section in this Calendar.

MINOR PROGRAM IN FRENCH

Supervisor: S. Mittler (416-287-7150) Email: mittler@utsc.utoronto.ca

Program Requirements

Students should complete four full credits including: FREA01H, FREA02H, FRED01H and FRED02H, plus two further credits in French. At least one full credit must be at the C-level.
MINOR PROGRAM IN FRENCH AS A SECOND LANGUAGE

Supervisor: S. Miller (416-287-7159) Email: millet@euc.utoronto.ca

Program Requirements
Students in this Program should complete at least four full credits including FREA01H, FREA02H, FRED10H, FRED11H, FRED12H, FRED13H, FRED14H, FRED15H, FRED16H, FRED17H, and one other credit in French at the B-level or higher. LGBR02H may be included if taken before FREA01H.

MINOR PROGRAM IN FRENCH FOR FRANCOPHONES

Supervisor: S. Miller (416-287-7159) Email: millet@euc.utoronto.ca

Program Requirements
Students in this Program must complete at least four full credits at the B- and C-levels, excluding FRED01H, FRED02H and FRED17H. At least one full credit must be at the C-level.

SPECIALIST PROGRAM IN MANAGEMENT AND FRENCH

Supervisor: S. Miller (416-287-7159) Email: millet@euc.utoronto.ca

Program Requirements
The Departments of Management and Humanities have co-operated to develop a Program in Management and French. The Management requirement for this Program is the first five requirements for the Specialist in Management. Language requirements consist of five full credits as follows:

French
a) FREA01H, FREA02H, FRED01H, FRED02H, and one full credit from among FRED02H, FRED03H, FRED04H
b) At least one full credit from among FRED04H, FRED06H, FRED10H, FRED11H, FRED12H
c) At least one half-credit from among FRED02H, FRED03H, FRED04H
d) An additional half-credit in French

FREA01H 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. FrenchA10H is a prerequisite for all B-level courses.

Exclusion: Native or near-native fluency in French; (FREA10Y, FSL161Y, FSL181Y, FSL182H)
Prerequisite: OAC French or Grade 12 French or equivalent or permission of instructor

FREA02H Language Practice II
A continuation of FREA01H. Exclusion: Native or near-native fluency in French; (FREA10Y, FSL161Y, FSL181Y, FSL182H)
Prerequisite: FREA01H

FREA10H Language Practice I
Development and reinforcement of spoken French. Through oral practice based on common situations, students will learn vocabulary, syntax and grammar essential for communication. This course also involves supportive in-class written work and listening comprehension exercises. It may but does not have to accompany FREA01H and FREA02H.

Exclusion: Native or near-native proficiency; FSL161Y, FSL181Y or equivalent; FRED01H, FRED02H (FRED10Y), FRED11H, FRED12H, FRED13H, FRED14H, FRED15H, FRED16H, FRED17H, FRED18H
Prerequisite: OAC French or Grade 12 or equivalent

FRED10H Language Practice III
This course is concerned with the development of fluency, accuracy of expression and style through the study of grammar, composition, aural/oral practice and a variety of readings. Course work can be supplemented by audio and videotapes. Exclusion: (FRED10Y, FSL261Y, FSL262Y or equivalent or native proficiency
Prerequisite: FRED01H or FRED02H or equivalent or permission of instructor

FRED11H Language Practice IV
A continuation of FRED10H. Exclusions, (FRED10Y, FSL261Y, FSL262Y or equivalent or native proficiency
Prerequisite: FRED01H or equivalent or permission of instructor

FRED12H 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. Exclusion: FRED10H, FRED10Y, FRED11H or FRED12H or equivalent or permission of instructor

FRED13H Practical Translation II
A continuation of Practical Translation I. Tests from fields such as literature, business, politics, technology and advertising will be translated and analyzed in terms of accuracy and lexical resourcefulness. Attention will be paid to multiple variants as well as interference from English.
Limited enrolment: 40.

Exclusion: FRED18H, FRED40Y & FRED40Y or equivalent or native proficiency
Prerequisite: [FRED01H & FRED02H] or [FRED10Y] or equivalent or permission of instructor

FRED11H 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: [FRED01H & FRED02H] or [FRED10Y] or equivalent or permission of instructor

FRED17H 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. FRED17H can also be taken under Study Elsewhere.
Exclusion: (FSL283H)
Prerequisite: [FRED01H & FRED02H] or [FRED10Y] or equivalent

FRED18H Commercial French
French Language in the 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.
Exclusion: FSL364H
Prerequisite: [FRED01H & FRED02H] or [FRED10Y] or equivalent or permission of instructor
FREB2H3 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 multi-linguism. Exclusion: ESL262Y
Prerequisite: FREA101H & FREA202H (or FREA102Y) or equivalent or permission of instructor.

FREB3H3 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 backgrounds as well as to the close study of works from areas including the West Indies, North and West Africa. Exclusion: FREB322H
Prerequisite: FREA101H & FREA202H (or FREA102Y) or equivalent or permission of instructor.

FREB3H3 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 literature. We will also examine the link between the novels studied and the transformation of Quebec society. Exclusion: FREB308H, FREB391H, FRE219Y, FRE319H
Prerequisite: FREA101H & FREA202H (or FREA102Y) or equivalent or permission of instructor.

FREB3H3 Contemporary Quebec Drama
An examination of contemporary Quebec theatre. We will study texts representative of a variety of dramatic texts; the focus will be primarily on dramatic texts; significant theatrical performances, however, will also be considered. Exclusion: FREB308H, FREB391H, FRE311H
Prerequisite: FREA101H & FREA202H (or FREA102Y) or equivalent or permission of instructor.

FREB4H3 Understanding French Grammar
Directed to students specializing in French and all those who wish to strengthen their knowledge 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. Exclusion: FRE127H
Prerequisite: FREA101H & FREA202H (or FREA102Y) or equivalent or permission of instructor.

FREB4H3 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 concepts 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. Exclusion: FREB257Y, FREB272Y, FREB371H
Prerequisite: FREA101H & FREA202H (or FREA102Y) or equivalent or permission of instructor.

FREB4H3 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 FREB439H and FREB344H.
Exclusion: FREB272Y
Prerequisite: FREA101H & FREA202H (or FREA102Y) or equivalent or permission of instructor.

FREB5H3 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.

FREB5H3 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: FREA101H and FREA203H or equivalent or permission of instructor.

FREB4H3 Folklore, 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 Guiana, 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. Taught in English.
Prerequisite: FREA101H & FREA202H (or FREA102Y) for students enrolled in French programs or two A-Level courses in Humanities or permission of instructor.
FREC00H3 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. Exclusion: (FREC10Y), FSL16Y, FSL23Y, FSL23H or equivalent.
Prerequisite: [FREB01H & FREB02H] or (FREB01Y) or equivalent or permission of instructor

FREC20H3 Language Practice VI
A continuation of FREC00H3. Exclusion: (FREC10Y), FSL16Y, FSL23Y, FSL23H or equivalent.
Prerequisite: FREB00H

FREC05H3 Exercise 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 selection, accuracy of expression, textual resources/ethos, cultural "reforming" and speed of delivery. Prerequisite: FREB17H or equivalent or permission of instructor

FREC11H3 Teaching French as a Second Language
A study of different theories of language teaching and learning and their application to the teaching of French as a second language. Exclusion: FREB34H1
Prerequisite: [FREB01H & FREB02H] or (FREB16H) or equivalent or permission of instructor

FREC18H3 Translation for Business and Professional Needs
Practice in translating commercial, professional and technical texts. Students will have the opportunity to widen their knowledge of the vocabulary and structures particular to the language of business as well as to such fields as industrial relations, insurance, software, health care, social work and finance. Exclusion: (FRE480Y), (FRE481Y)
Prerequisite: [FREB01H & FREB02H] or (FREB01Y) or equivalent or permission of instructor

FREC32H3 Special Topics in the Literature of Quebec: Post-Modern Literatures
An exploration of the textual forms and ideas that challenge tradition in contemporary writing. 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: FREB25H or equivalent or permission of instructor

FREC43H3 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. Exclusion: FREB37H1
Prerequisite: FREB40H

FREC47H3 Special Topics in Linguistics: Pidgin and Creole Languages
A study of pidgin and creole languages worldwide. The course will introduce students to the often complex grammars of these languages and examine French, English, Spanish and Dutch-based Creoles, as well as regional varieties. It will include some socio-historical discussion. Taught in English. Prerequisite: FREB43H1 or FREB44H1 or FREB45H or LINC40H or permission of the instructor

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 such as socio-economic status, types of situation and gender of speaker. Other topics include
dialect, languages in contact, language shift, social codes and pidgin and creole languages. Exclusion: LINC22H, FREB47H
Prerequisite: [FREB01H & FREB02H] or (FREB01Y) or equivalent or permission of instructor

FREC58H3 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: [FREB01H & FREB02H] or (FREB01Y) & (FREB05H or equivalent) or permission of instructor

FREC59H3 Topics 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: [FREB50H & FREB51H] or (FREB56H) or equivalent or permission of instructor

FREC59H3 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 Euroscepticism and colonialism in the construction of cultural stereotypes. "Others" considered include the "noble savage", the "Oriental", the "country bumpkin" and the "foreigner". Taught in English. Prerequisite: Two Humanities courses or permission of instructor.

FRED02H3
FRED03H3
FRED04H3
FRED05H3
FRED06H3
FRED07H3
FRED08H3 Supervised Reading
These courses offer the student an opportunity to carry out independent study of an advanced and intensive kind, under the direction of a faculty member. Student and instructor work out in consultation the course's objectives, content, bibliography, and methods of approach. The material studied should bear a clear relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in regular courses. In applying to a faculty supervisor, students should be prepared to present a brief written statement of the topic they wish to explore. Final approval of the project rests with the French Disciplines.

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 Supervisor of Studies for guidance. Prerequisite: One II-level course in the group FREB01H-FREB46H, except FREB17H & FREB18H.
LGGA1H3 Introduction to Canadian Culture and Society: A Course for Non-Native Speakers of English
A seminar course designed to introduce students who speak English as a second language to a study of Canadian culture and society through guest lectures, documentaries, non-fiction and fiction, and with an emphasis on multicultural writings. Evaluation is based on team oral presentations, research papers, and participation in class discussion. Exclusion: (HUMA1Y), (LGGA1Y)

LGGA1H3 Current Approaches to the Academic Writing Process I: A Course for Non-Native Speakers of English
A continuation of LGGA1H3. This course stresses the development of research-based writing skills, communication skills, and critical thinking through written assignments, short oral presentations, and discussion. Exclusion: LGGA9H1, (HUMA1Y), (LGGA1Y)
Prerequisite: LGGA1H3 or permission of the instructor.

LGGA1H3 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. Students enrolled in LGGA1H3 must be enrolled in LGGA1H3. Exclusion: LGGA9H1, (HUMA1Y)
Corequisite: LGGA1H3

LGGA2H1 Introductory French I
An intensive basic course in written and spoken French: comprehension, speaking, reading and writing. This intensive, practical course is designed for those who have no previous training in French. Exclusion: FSL100H or equivalent or above; Grade 9 COBE French or above (may be asked to provide high school academic records to confirm your status, not open to native or fluent speakers of French).

LGGA2H2 Introductory French II
An intensive course in written and spoken French; a continuation of LGGA2H1. 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 LGGA2H1, using second half of same textbook.
Exclusion: Grade 10 French or equivalent or above; FSL102H or equivalent, not open to native or fluent speakers of French.
Prerequisite: LGGA2H1 or FSL100H (Students with Grade 9 COBE French or equivalent or above should proceed directly to LGG2H3H)

LGGA3H0 Introductory Spanish I
An introductory course for students with no knowledge of Spanish.
The course develops listening, speaking, reading, and writing skills through a variety of oral and written exercises enhanced by audio-visual and computer-based materials. For students fulfilling a language requirement and those with a general interest in Spanish. Exclusion: Grade 12 Spanish, OAC Spanish, (LGGA5Y), SPA100Y, (SPA180Y), (SPA200Y), native or near-native proficiency in Spanish.

LGGA3H1 Introductory Spanish II
A continuation of LGGA301. Exclusion: Grade 12 Spanish, OAC Spanish, (LGGA3Y), SPA100Y, (SPA130Y), native or near-native proficiency in Spanish.
Prerequisite: LGGA301

LGGA4H3 Introduction to 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.
Limited enrolment: 30
Exclusion: NMC210Y; Arabic instruction in high school, prior knowledge of Arabic

LGGA4H3 Introduction to Standard Arabic II
A continuation of LGGA401. This course will build on the communicative competence gained in LGGA401 and will provide further practice in reading and writing in the Arabic script.
Limited enrolment: 30
Exclusion: NMC210Y
Prerequisite: LGGA401 or permission of the instructor.

LGGA8H3 Language, Power, and Critical Thinking
An examination of the relationship between language and power in society.
Students will analyze academic, political, media/female, cross-cultural, and journalistic discourse in order to learn how language is used to establish power relations, to express ideology, and to accomplish a variety of other goals in everyday life.
Exclusion: (HUMA12H), (LGGA12H)

LGGA9H3 Linguistic Concepts for Effective Writing
A non-technical introduction to linguistic concepts that will help students write clear and effective prose.
This course presents aspects of descriptive linguistics and provides writing practice and feedback for native and non-native speakers of English.
Note: This course cannot be used to satisfy the requirements of the minor or major programs in linguistics, nor the specialist program in psycholinguistics; nor may it be used as part of the linguistics component of the major or specialist programs in cognitive science.
Exclusion: LGGA7H, LGGA8H, LGGA9H, (LGGA10Y), (HUMA10Y), (HUMA9H), (ENG1001H), INDI12Y, INDI20Y, INDI20Y, INDI20Y

LGBB1H3 Modern Standard Chinese I
A comprehensive introduction to Modern Standard Chinese (Mandarin), for students who speak a Chinese dialect other than Mandarin and have learned complex-form Chinese characters. This course emphasizes Pinyin, spoken and written Chinese form, and study the Chinese script.
Exclusion: LGB11H, LGB12H, LGB13H
novel. Materials focus on linguistics and literature.
Exclusion: EAS295Y, (HUMB01Y), (LGGB01Y). Students may be excluded from the course if the instructor deems their proficiency in Mandarin to be inappropriate for the level of the course.

Exclusion: EAS295Y, (HUMB01Y), (LGGB01Y). Students may be excluded from the course if the instructor deems their proficiency in Mandarin to be inappropriate for the level of the course.
Prerequisite: LGGB01H3

LGGB23H3 Intermediate French Intended for those 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. Renforces reading comprehension, written skills and oral/nural competence. Prepares students for FREA01H3.
Exclusion: Grade 12 French, OAC French, FSL12Y or equivalent, FREA01H3 or FSL14V or higher: not open to native or fluent speakers of French.
Prerequisite: LGGA2H3, Grade 9 Core French or equivalent. Students with Grade 12 French should proceed directly to FREA01H3.

LGGB33H3 Intermediate Spanish I This course concentrates on an intensive review of Spanish grammatical principles in the context of written exercises, compositions, and translations.
Exclusion: SPA220Y, (SPA01HY). (SPA02HY), native or near-native proficiency in Spanish.
Prerequisite: Grade 12 Spanish or OAC Spanish or LGGB31H3 or (SPA01HY).

LGGB33H3 Intermediate Spanish II A continuation of LGGB33H3.
Exclusion: SPA220Y, (SPA01HY), (SPA02HY), native or near-native proficiency in Spanish.
Prerequisite: LGGB32H3 or (SPA02HY).

LGCC30H3 Advanced Spanish I An intensive study of grammar and syntax; translation, composition, combined with oral practice.
Detailed examination of the subtleties of Spanish grammar through practice in translation from and into Spanish, composition, and conversation.
Exclusion: (LGCC31Y3, SPA320Y, (SPA31Y3), native or near-native proficiency in Spanish.
Prerequisite: LGGB33H3 or (SPA01HY) or (SPA02HY).

LGCC31H3 Advanced Spanish II A continuation of LGCC30H3.
Exclusion: (LGCC31Y3, SPA320Y, (SPA31Y3), native or near-native proficiency in Spanish.
Prerequisite: LGGB33H3 or (SPA01HY) or (SPA02HY).

LGCC32H3 Business Spanish The Spanish language in a business context.
The course is designed primarily for students in the Management/Language Program but is open to others. The aim is to develop facility in the vocabulary and structures of this specialized use of the Spanish language through translation, correspondences, and group oral presentations.
Exclusion: (SPA02HY).
Corequisites: LGCC31H3 or (SPA31Y3).

LGOC33H3 Spanish Practical Translation A workshop in translation from and into Spanish.
Translation of texts from advertising, commerce, entertainment, law, medicine, politics, science and technology. and spot will broaden students' vocabulary and develop proficiency in handling non-literary modes of expression.
Evaluation is based on weekly assignments, active participation in class discussion, and an examination.
Exclusion: SPA421Y, (SPA03HY).
Corequisites: LGCC31H3 or (SPA02HY).

Linguistics (BA)

Faculty List
R.J. Binick, B.A. (CUNY), M.A., Ph.D. (Chicago), Professor
E.A. Couper, B.A. (McGill), A.M., Ph.D. (Brown), Professor
D.M. James, B.A. (U.B.C.), M.A. (Concord), Ph.D. (Michigan), Associate Professor
R. Shibley, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor
R. Helms-Parker, M.A., Ph.D. (Toronto), Assistant Professor

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 socio-linguistics (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. In many cases, a combined Major in Linguistics and another discipline (e.g., Psychology, Cognitive Science, Computer Science, or a language) will provide the best preparation. However, students whose interests lie in the area of theoretical linguistics should consult with the Supervisor of Studies in order to select courses.

The Linguistics Study Guide is available at:
http://www.arts.utoronto.ca/ling/Linguistics/linguistics.195/linguistics studysguide/index.htm

Note: For Co-op opportunities related to the Specialist Program in Psycholinguistics and the Major Program in Linguistics, please see Co-operative Program in Humanities section in this Calendar.

SPECIALIST PROGRAM IN PSYCHOLINGUISTICS
Supervisor: R.L. Binick (416-287-7120) Email: binick@arts.utoronto.ca

Program Requirements
Students must complete twelve full credits, as follows:
LINGA01H General Linguistics I
LINGA02H General Linguistics II
PSY01H1 Introduction Psychology: Part I
PSY01H2 Introduction Psychology: Part II
LING01H1 Phonetics: The Study of Speech Sounds
LING01H2 Practical Language Analysis: Phonology
LING02H1 Practical Language Analysis: Morphology
LING02H6 Practical Language Analysis: Syntax

Two of the following:
PLIC24H Developmental Psycholinguistics
PLIC35H Psycholinguistics
PLID25H Disorders of Speech and Language

Four of the following:
PSYB07H1 Data Analysis in Psychology
PSYB20H1 Introduction to Developmental Psychology
PSYB50H1 Sensation and Perception
PSYB51H1 Perception and Cognition
PSYB75H1 Memory and Cognition
PSYB85H1 Human Brain and Behaviour
PSYC11H Advanced Developmental Psychology

Four further full credits in LIV and/or PLI and/or FRE linguistics (FRE440H1, FRE447H1, FRE4481H), two of which must be at the C- or D-level
One further full credit in PSY, which must be at the C- or D-level
LINB04H1 Professional Language Analysis: Phonology
Practice in analysis of sound patterns in a broad variety of languages.
Exclusion: LIN22H1
Prerequisite: LIN40H1 or (LIN40Y1)

LINB05H1 Practical Language Analysis: Morphology
Practice in analysis of word structure in a broad variety of languages.
Exclusion: LIN22H1
Prerequisite: LIN40H1 or (LIN40Y1)

LINB06H1 Practical Language Analysis: Syntax
Practice in analysis of sentence structure in a broad variety of languages.
Exclusion: LIN22H1
Prerequisite: LIN40H1 or (LIN40Y1)

LINB08H1 Sociolinguistics
The study of the relationship between language and society, with the goal of understanding language form and structure through its social functions. Topics include: regional dialects, social dialects, and speech styles; the role of speech varieties as symbols of group affiliation; social origins of linguistic change; attitudes towards linguistic varieties.
Exclusion: (UL254H1, LIN256H)
Prerequisite: LIN40H1 or (LIN40Y1)

LINB25H1 Second Language Learning
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 Specialist Program in the Education of Teachers in French.
Prerequisite: (LINA01H3 or (LINA01Y1)) or FRE144H1 or FRE145H1 or alternative prerequisite with permission of the instructor.

LINC02H1 Phonology: Sound Systems of Language
Basic issues in phonological theory. This course assumes familiarity with phonetic principles, as discussed in LINB08H1, and with phonological problem-solving methods, as discussed in LINB04H1.
Exclusion: LIN22H1
Prerequisite: LINI04H1 or LINI09H1

LINC06H1 Language Change
An introduction to language change and language relationships.
Exclusion: LINI2H1
Prerequisite: LINI42H1 or (LINA01Y1)

LINC08H1 Language History
An introduction to language history, with emphasis on what history can teach us about language and what language can reveal about prehistory and history.
Prerequisite: LINI06H1

LINC12H3 Semantics: The Study of Meaning
An introduction to the role of meaning in the structure, function, and use of language.
Exclusion: LINI44H1
Prerequisite: LINI42H1 or (LINA01Y1)

LINC14H3 Pragmatics
An introduction to pragmatics, the study of the use and interpretation of utterances, with emphasis on the division of labour between semantics and pragmatics. Topics will include inference, presupposition, conversational and conventional implicature, focus and topicalization, the role of context in interpretation and use, and implicit and indirect speech acts.
Prerequisite: LINI04H1 or (LINA01Y1)
LING343 Writing Systems

The two-tone linguistic 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, Korean, Arabic, Sanskrit, etc.), and the principles of their form and function.

Exclusion: JAL328H (LING801H), JAL325H

Prerequisite: LING901H or LING901Y

LING283 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 toward gender.

Exclusion: JAL325H

Prerequisite: LING902H or LING901Y or one credit in ANT, SOC or WST

LING343 Reading and Writing in a Second Language: Theoretical and Pedagogical Issues

An examination of theoretical, pedagogical, and research issues related to reading and writing in a second language. This course is recommended for students enrolled in the Specialist Program in the Education of Teachers in French. 

Prerequisite: LING601H or LING901Y or FREB43H & [LING248H or FREB13H or LING253H] or alternative prerequisites with permission of the instructor.

LIND213H

LIND223H

LIND233H

LIND243H

LIND253H

LIND303H Supervised Reading

Independent study and research in an area of interest to the student. Students must obtain consent from a supervising instructor before registering for these courses. Interested students should contact Professor H.I. Bichak, Supervisor of Studies.

Prerequisite: At least one full credit at the B-level in Linguistics & permission of the instructor.

PLIC243H Developmental Psycholinguistics

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.

Exclusion: JLP315H

Prerequisite: One full credit in LIN or [FREB344H & FREB345H] & one full credit in PSY

PLIC353H 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 meaning systems in language processing.

Exclusion: PLIB55H, JLP374H

Prerequisite: One credit in LIN and one credit in PSY

PLID448H Acquisition of the Mental Lexicon

An examination of the [L1 (first language) and L2 (second language)] lexical (vocabulary) acquisition. Topics include: the interaction between linguistic and cognitive development; the role of linguistic-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: [LING254H & PLIC248H] or permission of the instructor

PLID550H 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.

Exclusion: JLS474H

Prerequisite: One full credit in LIN, one full credit in PSY & [PLIC248H or PLIC355H or LIN9234H] or permission of the instructor

Linguistics

See the Languages and Linguistics section of this Calendar.

Management (B.B.A.)

Faculty List

S. Bozzo, B.A. (Harvard), M.P. (Kennesaw State Univ.), Ph.D. (Harvard), Professor

D.W. Lang, B.A., M.A. (Western), Ph.D. (Toronto), Professor

A. Saki, B.A., (Western), M.A. (Waterloo), Ph.D. (Toronto), Professor

A. Stark, B.A. (UBC), M.Sc. (London), M.A., Ph.D. (Harvard), Professor

I. Avraham, M.Sc., Ph.D. (McGill Institute of Physics & Technology), Associate Professor

S. Law, B.A. (Carleton), B.S. (Wilson College), M.S. (Bucknell), Ph.D. (Toronto), Associate Professor

J. Wei, B.Sc. (Herbin Inst. (China)), M.B.A. (York, Canada), Ph.D. (Toronto), Associate Professor

P. Aggarwal, B.A., M.B.A. (India), Ph.D. (Chicago), Assistant Professor

K. Kim, B.A., M.B.A. (Korea), Ph.D. (Monmouth), Assistant Professor

C. Loughlin, B.Sc. (Calgary), M.A., Ph.D. (Queens), Assistant Professor

J. McCarthy, B.A., M.A., Ph.D. (Western), Assistant Professor

D. Zwierg, B.A., M.A.Sc., Ph.D (Waterloo), Assistant Professor

S. Ahmed, B.Com., M.A. (Sirath), M.B.A. (Concordia), Senior Lecturer

T. Linnovitz, B. Com. (Toronto), C.A., M.B.A. (York, Canada), Senior Lecturer

R.C. Power, B.A., B.H.E., M.B.A., L.L.B. (Queens), Senior Lecturer

A. Stawnowa, B.A. (Toronto), M.B.A. (York, Canada), C.M.A., Senior Lecturer

C. Bovaid, B.A. (Queens), M.Sc (Sitting), M.B.A. (Western), Lecturer

S. Daga, B.A. (Waterloo), C.A. (CICA), Lecturer

P. Radhakrishnan, B.A. (Windor), M.A. (Illinois), Ph.D (Illinois), Lecturer

Chair: M. Krawtinsky

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 at 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 will engage in nationally and internationally recognized research which advances the frontiers of knowledge, serves the interests of our community, and brings new insights to our students. We will improve our students' current and future experiences by building and maintaining close links with private and public sector organizations, by helping students to bridge the gap between education and employment, and by providing a continuing and lively connection among current and former students of the Department."

The University of Toronto at Scarborough offers the Bachelor of Business Administration degree to students who complete one of the Specialist Programs in Management. We also offer a Co-op version to the Management Program and a Certificate in Business. Admission to graduate studies leading to the Master of Business Administration (MBA) degree is open to all qualified graduates regardless of the subjects or disciplines studied at the undergraduate level. Students contemplating graduate study would be well advised to include [MGT4A0Y or MGT4A0H and MGT4A6H] in their undergraduate Program. They should also consider strengthening their preparation for graduate work by taking courses in such areas as Economics, Mathematics, Computer Science, Sociology, Psychology and Anthropology.
Limited enrollment: Because of pressures of demand for places, it has been necessary to place enrollment 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 enrollment 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 unwittingly register for courses for which they do not have the necessary prerequisites will be denied access to those courses.

Management Programs
There are a number of Specialist Programs in Management, all of which lead to the B.B.A. and most of which have Co-op options, which are described below.

Notice to Non-Program Students
All B-, C- and D-level Management courses are restricted to students in Management Programs. Management Program students includes degree, certificate and non-degree students in Management. There will be no exceptions.

Management courses at the St. George campus are restricted and not available to UTSC students.

Admissions
Each year a total of 350 students are admitted to the Specialist Programs in Management including Co-operative studies (that number will rise to 420 in 2006). 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
   Up to 210 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 or OAC English and Grade 12 or OAC Calculus. In the first year, they will take the courses required for the Program of their choice (see the following paragraphs). In order to remain in the Program students must maintain a GPA of 1.6 or higher after having attempted at least 4 full-credit equivalents and a GPA of 2.0 or higher after having attempted at least 8 full-course equivalents. Co-op students must maintain a cumulative GPA of 2.50 throughout the Program.

2. At the End of First Year
   Applicants for the Specialist Programs in Management must have completed (or be in the process of completing) [MGTAD0Y or MGTAD0H & MGTAD4H] (ECMA02Y) or ECMA40H & ECMA40H and MATA27H (MATA27H/37H & MATA37H) may also be used to satisfy the calculus requirement.)

3. Admission after First Year
   Admission of students during second year that is, until they have completed up to 10 full credits) will also be on the basis of all grades received. Students who have completed more than ten full-credits will not normally be considered for admission to the Programs. Students applying at the end of first year or during the second year will be considered together for a total of approximately 160 places in the Specialist Programs (the number will rise to 230 in 2006).

   Subject to enrollment limits, a student admitted to any of the Programs will have access to the full range of offerings in the Department. Specific Program requirements are listed below.

Guidelines for Course Selection for First-Year Students in Management Programs
Co-op B.B.A.
[MGTAD0Y or MGTAD0H & MGTAD4H], MGTB05H, MGTB06H, [ECMA02Y] or ECMA40H & ECMA40H, CSSC02H and MATA27H.

Co-op Specialist Program in Management and Information Technology:
[MGTAD0Y or MGTAD0H & MGTAD4H], [ECMA40H & ECMA40H or (ECMA02Y) & MATA27H or MATA37H(37H)]

MATA27H, MATA37H recommended, MGTB05H and MGTB06H allowed.

Taking a course in the Humanities or Social Sciences in first year is recommended.

Note: Students enrolling in any of the joint programs (Specialist Program in Management and Humanities, Specialist Program in Management and Information Technology, Specialist Program in Management and Language, French, Specialist Program in Management and Life Sciences, Specialist Program in Management and Science, Specialist Program in Management and Social Sciences) should also take courses to begin their majors in the linked departments. For example, students in their first year in Management and Information Technology should take some of CSSC08H, CSSC04H, CSSC06H, MATA24H, MATA34H and MATA37H in addition to the first year MGT and ECM courses

Guidelines for Course Selection for Students Admitted to Pre-Program
Read the information sent with the offer of admission. Must have at least 4 FCEs (full credit equivalents) from the University of Toronto to apply to Programs. For B.B.A., consideration, enrol in:
[MGTAD0Y or MGTAD0H & MGTAD4H], [ECMA02Y] or ECMA40H & ECMA40H, MATA27H (CSSC02H recommended but not required to apply to Program)

Taking a course in the Humanities or Social Sciences in first year is recommended.

Pre-program students interested in any of the joint programs (Specialist Program in Management and Humanities, Specialist Program in Management and Information Technology, Specialist Program in Management and Language, French, Specialist Program in Management and Life Sciences, Specialist Program in Management and Science, Specialist Program in Management and Social Sciences) should also take some courses in the linked department before applying to the program.

CO-OPERATIVE PROGRAM IN MANAGEMENT
Acting Program Manager: R. Jannes-Reid (416-287-7112) January - December 2005
E-mail: jannes@utsc.utoronto.ca
Program Manager: C. Aresnault (416-287-7112) from December 2005
E-mail: aresnault@utsc.utoronto.ca

The Management Co-operative Program is a work-study 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, fees, 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, and conclude with a final eight months of study.
Program Requirements

Co-op students will follow the course requirements specified in one of Specialist in Management Programs with a co-op option (Management, Management and Humanities, Management and Information Technology, Management and Life Sciences, Management and Sciences and Management and Social Sciences). These programs are described later in this section. Please note that in addition to these requirements, Co-op students in the Specialist Program in Management must have taken MGT364H prior to the commencement of their second work term. The prerequisites for MGT364H will be waived only for Co-op students in this program. Co-op students in the other Management Programs are not required to complete MGT364H. In the first two years of study all students follow a common core of studies (please refer to the detailed requirements in the Management Programs). Students are advised to consult regularly with the Program Supervisor on course selection and scheduling. It is however the student's 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 compete for a work term a student must be in good standing in the Program and must have completed:

- for the first work term: seven full-course equivalents, including ECM340H1, ECM340H2, [MGT422Y or MGT430H1 & MGT430H2], MGT405H1, MGT405H2, the appropriate A-level Computer Science and Mathematics courses and the Introduction to Management Co-op Tutorial
- for the second work term: nine full-course equivalents (including, for students in the Specialist Program in Management only, MGT364H)
- for the third work term: eleven full-course equivalents

SPECIALIST PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES

This program, which includes 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 BBA students interested in further study in Economics. (See Economics for Management Studies section of this Calendar for full description.)

SPECIALIST PROGRAM IN MANAGEMENT

Supervisor: S. Daga  E-mail: management-supervisor-studies@uwaterloo.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.

Program Requirements

The Program requires the completion of the following minimum requirements (14 full-course equivalents) as part of a twenty-credit degree:

Note: A single course may only be used to fulfill one of the following requirements:

1. [MGT422Y or MGT430H1 & MGT430H2], MGT308H, MGT405H, MGT405H2, MGT412H, MGT422Y or MGT425H & MGT429H], MGT308H, MGT412H, MGT424H, MGT427H
2. at least 0.5 FCE of courses emphasizing strategic management, chosen from MGT430H1, MGT430H2, MGT435H, MGT435H2, MGT438H, MGT438H2, MGT441H, MGT441H2, MGT455H, MGT455H2, MGT459H
3. [ECMA040Y or ECMA040Y1 & ECMA040Y2], ECM420H, ECM420H2, ECM420H3, [ECMB89Y or ECMB89Y1 & ECMB89Y2] and 1 FCE of C-level Economics for Management Studies course. A C-level Economics for Management Studies course is defined as one that has a B-level prerequisite.

4. MATA27H1 (strongly recommended) or MATA30H3/31H & MATA35H1/36H/37H
5. CSAC02H (students familiar with the material in CSAC02H may substitute CSAC08H)
6. Two-and-a-half additional FCEs from courses other than MGT/ECM, to include at least 1 FCE from courses within the Department of Humanities.

The remaining courses needed to complete the degree requirement of 20 FCEs can be chosen either within or outside the Department of Management in accordance with the student's interest.

Streams of Study

Students registered in the Specialist in Management (B.B.A.) Program have the option of registering in one of the following streams. In order to complete the chosen stream noted on the transcript, students will have to complete at least 2.0 FCEs from a relevant set of courses noted below, in addition to the courses required for completion of the Specialist in Management (B.B.A.). In counting courses towards the core requirements and a stream, no course will be counted for more than one requirement. Students may register in only one stream of Management Studies. Streams are an available option for students but are not required for graduation. They are subject to course availability.

Accounting

Economic Data Analysis
Students must take ECMI02H and ECMS06H as their C-level ECM options within the B.B.A. Students must also take the following 2 FCEs within ECM: ECM131H, ECM132H, ECM259H and one of ECM133H or ECM144H

Finance
Two FCEs from MGT370H, MGT375H, ECM340H, ECM349H, ECM350H, MGT371H, MGT372H

Human Resources Management
Two FCEs from MGT324H, MGT325H, MGT326H, MGT327H, MGT328H, MGT329H, MGT330H, MGT331H, MGT332H

International Business
Two FCEs from (MGT326H), ECM344H, ECM345H, ECM362H, ECM460H, ECM467H

Marketing Stream
Two FCEs from MGT395H, MGT396H, MGT397H, MGT398H, MGT399H

Public Management

Strategic Management
SPECIALIST PROGRAM IN MANAGEMENT AND HUMANITIES
Supervisor: S. Daga  E-mail: management-supervisor-studies@uottawa.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 one of the disciplines of Humanities.

Program Requirements
The program requires the completion of the following minimum requirements as part of a 20-credit degree:
1. [MGT404H or MGT405H & MGT406H], MGT603H, MGT604H, MGT605H, MGT606H, [MGT617Y or MGT623H & MGT628H], MGT302H, MGT303H, MGT304H, MGT305H, MGT306H, [MGT307Y or MGT309H & MGT312H)
2. MATA21H or MAT318H & one of MATA353H, MATA504H, MATAT3H)
3. SCM303H (students familiar with the material in SCM302H may substitute CSCA80H)
4. all of the requirements of one of the majors from the Department of Humanities
5. students may if they wish take up to one additional course from among the courses in MGT and ECM

Note: Item 1, 2, and 6 effectively limit the number of MGT and ECM courses to 10 FCEs (although, of course, students are only required to complete 9 FCEs in MGT and ECM). Students in this program will therefore have to complete at least 10 FCEs outside MGT and ECM, and most of these courses will naturally constitute the requirements of the Humanities program.

SPECIALIST PROGRAM IN MANAGEMENT AND INFORMATION TECHNOLOGY
Supervisor: S. Daga  E-mail: management-supervisor-studies@uottawa.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.

Program Requirements
The program requires completion of the following course requirements (16.5 FCEs) as part of a twenty-credit degree:
3. C-level courses: CSCC40H, CSCC43H, [CSCC63H or CSCC73H], MGT033H, MGT098H, MGT024H, MGT024H
4. D-level courses: CSCD03H
5. Students may, if they wish, take up to one additional course from among courses in MGT and ECM.

Note: Items 1, 2, 3, and 5 effectively limit the number of MGT and ECM courses to 9 FCEs (although, of course, students are only required to complete 8 FCEs in MGT and ECM). Students in this program, if they wish, may take up to one additional course from among the courses in MGT and ECM.

SPECIALIST PROGRAM IN MANAGEMENT AND LANGUAGE (FRENCH)
Supervisor: S. Daga  E-mail: management-supervisor-studies@uottawa.ca
The Department of Management and the Department of Humanities have cooperated to develop a Program in Management and French.

Program Requirements
The Management requirements for this Program are the first 5 requirements for the Specialist in Management. The French requirement is waived.

Students are encouraged to take [MGTA02Y or MGT403H & MGT404H], ECM404H & ECM406H, CSCA41H, MATA23H and an appropriate course(s) in French in the first year.

Language requirements consist of five full-credit equivalents in French, made up of A. Basic Language, B. Business Language and C. Civilization, as follows:

French
1. FRE401H, FRE402H, FRE403H, FRE404H, and one full-credit from among FRE305H, FRE306H, FRE307H
2. At least one full-credit from among FRE501H, FRE502H, FRE503H, FRE504H
3. At least one half-credit from among FRE621H, FRE622H, FRE623H
4. An additional half-credit in French

The remaining courses needed to complete the degree requirement of 20 FCEs can be chosen either within or outside the Department of Management in accordance with the student's interest.

SPECIALIST PROGRAM IN MANAGEMENT AND LIFE SCIENCES
Supervisor: S. Daga  E-mail: management-supervisor-studies@uottawa.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 one of the disciplines of Life Sciences.

Program Requirements
The program requires the completion of the following minimum requirements as part of a 20-credit degree:
1. [MGT402Y or MGT403H & MGT404H], MGT603H, MGT604H, MGT605H, MGT606H, [MGT617Y or MGT623H & MGT628H], MGT302H, MGT303H, MGT304H, MGT305H, MGT306H, MGT307Y, MGT309H, MGT312H
2. ECON401H & ECON406H, ECON408H, [ECON409H or ECON411H & ECON412H]
3. MAT21H or MATA353H [MATA353H & TATA594H & TATA595H]
4. CSCA421H (students familiar with the material in CSCA421H may substitute CSCA80H)
5. all of the requirements of one of the majors from the Department of Life Sciences
6. students may, if they wish, take up to one additional course from among the courses in MGT and ECM

Notes:
(a) Item 1, 2, and 6 effectively limit the number of MGT and ECM courses to 10 FCEs (although, of course, students are only required to complete 9 FCEs in MGT and ECM). Students in this program will therefore have to complete at least 10 FCEs outside MGT and ECM, and most of these courses will naturally constitute the requirements of the Life Sciences program.
(b) Because statistics is covered in ECON401H and ECON412H and may also be required as part of the Life Sciences major, students should be aware of exclusions in choosing their statistic courses.
SPECIALIST PROGRAM IN MANAGEMENT AND SCIENCE
Supervisor: S. Daga 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 one of the Science disciplines.

Program Requirements
The program requires the completion of the following minimum requirements as part of a 26-credit degree:
2. ECON404H1 & ECON405H1, ECON406H1, ECON407H1, ECON408H1
3. [MATA35H1 & one of MATA36H1, MATA37H1, MATA39H1, or MATA40H1]
4. all of the requirements of one of the majors in either the Department of Computer and Mathematical Sciences or the Department of Physical and Environmental Sciences
5. students may if they wish take up to one additional FCE from among the courses in MGT and ECM

Notes:
a) Item 1, 2 and 5 effectively limit the number of MGT and ECM courses to 9 FCEs (although of course students are only required to complete 8 FCEs in MGT and ECM). Students in this program will therefore have to complete at least 11 FCEs outside MGT and ECM, and most of these courses will naturally constitute the requirements of the Sciences program.
b) Because most science majors require specific calculus courses, students should be aware of the requirements of their specific science program in choosing the courses to satisfy item 3.

SPECIALIST PROGRAM IN MANAGEMENT AND SOCIAL SCIENCES
Supervisor: S. Daga 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 one of the disciplines of Social Sciences.

Program Requirements
The program requires the completion of the following minimum requirements as part of a 26-credit degree:
2. ECON404H1, ECON405H1, ECON406H1, ECON407H1, ECON408H1
3. [MATA35H1 & one of MATA36H1, MATA37H1, MATA39H1, or MATA40H1]
4. [CASAC2H1 (students familiar with the material in CASAC2H1 may substitute CASAC0H1)]
5. all of the requirements of one of the majors from the Department of Social Sciences
6. students may if they wish take up to one additional FCE from among the courses in MGT and ECM

Notes:
a) Item 1, 2 and 6 effectively limit the number of MGT and ECM courses to 16 FCEs (although of course students are only required to complete 9 FCEs in MGT and ECM). Students in this program will therefore have to complete at least 16 FCEs outside of MGT and ECM, and most of these courses will naturally constitute the requirements of the Social Sciences program.
b) Because some courses are covered in ECM311H and ECM312H, and may also be required as part of the Social Sciences major, students should be aware of exclusions in choosing their statistics courses.

CERTIFICATE IN BUSINESS
Supervisor: R. Powers E-mail: powersr@utsc.utoronto.ca
Website: www.utsc.utoronto.ca/~mgmt
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 contact the Supervisor.

NON-DEGREE STUDENTS IN MANAGEMENT AND ECONOMICS
Supervisor: R. Powers E-mail: powersr@utsc.utoronto.ca
Website: www.utsc.utoronto.ca/~mgmt
Non-degree students may be allowed to take individual courses either as credits towards professional certification (for example in accounting or human resource management) or for personal interest. Students may take courses if they have fulfilled the prerequisites or have the permission of the Supervisor.

Non-degree students will be admitted to courses only if there is room after regular degree students. Management Programs have been accommodated. Applicants must provide specific information regarding previous education and work experience. To assist in designing individual course selection, the application form will ask about one's educational objectives. Applicants may begin in the Fall, the Winter or the Summer Session. Regular application deadlines apply, but late applicants may be accommodated if there is space in classes.

Careers in Accountancy
UTSC offers a significant number of courses which have been recognized as meeting part of the educational training of Chartered Accountants, Certified General Accountants and Certified Management Accountants. Appropriate Co-op work terms with designated CA firms will be recognized by the Institute of Chartered Accountants of Ontario as part of their internship requirement. Brochures describing the various Programs and listing the recognized University of Toronto at Scarborough courses are available from the Career Centre (416-287-7561).

MGT402Y Introduction to Management
Introduction to the process of management (planning, organizing, controlling and directing), the functional components of profit and non-profit organizations (accounting, finance, marketing, personnel, etc.), and the organization's role within a broader context, including ethical and societal considerations. This course should be taken before any other MGT courses.
Exclusion: Any other MGT course (except B50 & B60 for students in Programs), COM110H1, MGMT105Y, MGMT106H1, MGMT107H
Prerequisite: MATA33H1

MGT303H 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. Limited enrolment: Enrollment is limited to students registered in Programs requiring this course.
Exclusion: MGT323H1, MGT322H1 & MGT322H, VPA313H1
Prerequisite: [ECON404H1 or ECON405H1] & [ECON406H1 or ECON407H1] & [ECON408H1], and MGT106H1

MGT403H 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 MGT303H.
Exclusion: MGT402Y, COM110H1, MGMT105Y, MGMT106H1, MGMT107H
Prerequisite: MATA33H1

MGT304H 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. Limited enrolment: Enrollment is limited to students registered in Programs requiring this course.
Exclusion: MGT323H1, MGT322H1 & MGT322H, VPA313H1
Prerequisite: [ECON404H1 or ECON405H1] & [ECON406H1 or ECON407H1] & [ECON408H1], and MGT106H1

MGT404H 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 MGT303H.
Exclusion: MGT402Y, COM110H1, MGMT105Y, MGMT106H1, MGMT107H
Prerequisite: MATA33H1

MGT304H 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. Limited enrolment: Enrollment is limited to students registered in Programs requiring this course.
Exclusion: MGT323H1, MGT322H1 & MGT322H, VPA313H1
Prerequisite: [ECON404H1 or ECON405H1] & [ECON406H1 or ECON407H1] & [ECON408H1], and MGT106H1
MGTR84H3 Principles of Marketing

An introduction to basic concepts and tools of marketing designed to provide students with a conceptual framework for the analysis of marketing problems. The topics include an examination of buyer behaviour, market segmentation; the basic elements of the marketing mix. Enrolment is limited to students registered in Programs requiring this course.

Limited enrolment: 60
Exclusion: MG125B3H, (MGTC04H1)
Prerequisite: MGTA02Y or [MGTA03H & MGTA04H]

MGTB80H3 Financial Accounting I

Together with MGTB80H4, this course provides a rigorous introduction to accounting techniques and to the principles and concepts underlying these techniques. The preparation of financial statements is addressed from the point of view of both preparers and users of financial information.

Exclusion: MGTB02Y, MGT120H1, MGT220H1 & VPA013H
Prerequisite: MGTA02Y or [MGTA03H & MGTA04H]. Students admitted into the Management Program directly from high school and students registered in Programs requiring this course may take MGTA02Y or [MGTA03H & MGTA04H] concurrently.

MGTB80H4 Financial Accounting II

This course is a continuation of MGTB80H3. Students are encouraged to take it immediately after completing MGTB80H3. Technical topics include the reporting and interpretation of debt and equity issues, owner's equity, cash flow statements and analysis. Through cases, choices of treatment and disclosure are developed, and the development of professional judgment is encouraged.

Exclusion: MGTI02H1, MG1220H1, VPA013H
Prerequisite: MGTB80H3

MGTB23Y3 Managing People in Organizations

An introduction to micro- and macro-organisational 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.

Exclusion: MGTB27Y1, MGTB26H
Prerequisite: MGTA02Y or [MGTA03H & MGTA04H]

MGTB27Y3 Managing People and Groups in Organizations

An introduction to micro- and macro-organisational 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.

Exclusion: MGTB26H, MGTB23H, MGTB26H
Prerequisite: MGTA02Y or [MGTA03H & MGTA04H]

MGTB92H3 Managing Groups and Organizations

An introduction to the practical and theoretical aspects of micro-organizational behaviour. Building on MGTB23H, students will be introduced to theoretical and practical aspects of micro-organizational levels of behavior 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.

Exclusion: MGTB27Y1, MGTB26H
Prerequisite: MGTB23H

MGTC02Y3 Introductory and Intermediate Finance

A treatment of concepts and analytical tools in financial management. Using the concept of value of money and the discount cash flow framework, the course will examine valuations of bonds, stocks and derivative securities, and tackle capital budgeting problems. Other topics include: cost of capital, capital structure, dividend policy, leasing, and international finance.

Exclusion: MGTC03Y1, MGTC03Y7, MGTC03H, MGTC03H
Prerequisite: [ECMB111H or ECMB09Y] or [MGTB01H] & MGTB20H

MGTC03H3 Principles of Finance

An introduction to basic concepts and analytical tools in financial management. Building on the fundamental concept of time value of money, the course will examine stock and bond valuations and capital budgeting under uncertainty. Also covered are risk-return trade-off, financial planning and forecasting, and long-term financing decisions.

Limited enrolment: 70
Exclusion: MGTB02Y, MGTC33Y1, MGTC33Y7
Prerequisite: [ECMB09Y or ECMB111H or (MGTC01H) & MGTB03H]

MGTC05H3 Marketing Management

This course builds on the introductory course to 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.

Limited enrolment: 60
Exclusion: MGTC03H3
Prerequisite: MGTC04H or (MGTC04H)

MGTC06H3 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.

Limited enrolment: 60
Exclusion: MG123H1, MG122H1
Prerequisite: MGTB03H

MGTC07H3 Intermediate Financial Accounting I

Together with MGTC08H1, this course examines financial reporting in Canada. Through case analysis and the technical material covered, students will build on their knowledge covered in MGTB05H, MGTB06H and, to a lesser extent, MGTB08H.

Limited enrolment: 60
Exclusion: MG124H1, MG123H1
Prerequisite: MGTC06H1 & MGTB03H
Corequisite: MGTC06H4 (either with this course or with MGTC08H)

MGTC08H3 Intermediate Financial Accounting II

This course is a continuation of MGTC07H3. 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 MGTC07H3 before attempting this course.

Limited enrolment: 60
Exclusion: [MGTC01Y, MGTC02H, MGTC03H]
Prerequisite: MGTC07H3 Corequisite: MGTC06H4 (either with this course or with MGTC08H)

MGTC09H3 Intermediate Finance

This course covers mainstream finance topics. Besides a deeper examination of certain topics already covered in MGTC08H, 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.

Limited enrolment: 60
Exclusion: MGTC02Y, MGTC33Y1, MGTC33Y7
Prerequisite: MGTC03H

MGTC10H3 Management Control Systems

The course objective is to develop a thorough understanding of planning and control systems in organizations, with an emphasis on behavioural implications. Case studies will be used to evaluate
MGT232H4 Diversity in the Workplace
This course 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.
Limited enrolment: 40
Prerequisite: MGTB23H & MGTB29H1 or MGTB27Y

MGT243H1 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 earlier in 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.
Limited enrolment: 40
Exclusion: MGTB24H
Prerequisite: MGTB23H & MGTB29H1 or MGTB27Y

MGT213H3 Introduction to Consulting
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.
Limited enrolment: 60
Prerequisite: MGTB23H & MGTB29H1 or MGTB27Y

MGT209H1 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.
Limited enrolment: 60
Exclusion: MGT771H
Prerequisites: MGTB23H & MGTB29H1 or MGTB27Y

MGT195Y5 Income Tax
An examination of the broad principles of federal income tax in Canada and of the detailed provisions involved in the taxation primarily of individuals, unincorporated businesses and corporations. Current tax laws are applied to practical problems and cases.
Exclusion: MGT146H, MGT171H, MGT423H, MGT429H
Prerequisite: Completion of at least ten full-credit equivalents including [MGTB05H & MGTB06H] & MGTB03H. MGT07H is highly recommended.

MGT161H3 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.
Limited enrolment: 60
Exclusion: MGT153Y, MGT423H
Prerequisite: Completion of at least ten full-credit equivalents including MGTB05H & MGTB06H & MGTB03H. MGT07H is highly recommended.

MGT171H3 Canadian Income Taxation II
This course is designed to give the student an understanding of the more complex issues of federal income taxation, by applying current tax law to practical problems and cases. Topics include: computation of corporate taxes, corporate distributions, corporate re-organizations, partnerships, trusts, and individual and corporate tax planning.
Limited enrolment: 60
Exclusion: MGT425Y, MGT429H
Prerequisite: MGT161H

MGT208H1 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.
Limited enrolment: 30
Prerequisite: MGTB04H

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 work place.
Limited enrolment: 60
Exclusion: MGT400H
Prerequisites: MGTB23H & MGTB29H1 or MGTB27Y

MGT219H3 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.
Limited enrolment: 60
Exclusion: MGT101Y, MGT393H
Prerequisite: Completion of at least ten full-credit equivalents including [MGTB05H & MGTB06H] or (MGTB27Y)

MGT223H3 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.
Limited enrolment: 60
Exclusion: MGT130Y, MGT340H
Prerequisite: MGT131H

MGT335H1 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.
Limited enrolment: 60
Exclusion: MGT403
Prerequisite: [MGT322Y or MGT383H & MGT464H] & MGTB23H & MGTB29H or MGTB27Y
MGTC49H3 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, custodian, partner, investor, tax-collector, grant-giver, licensee, dealer, friend or enemy. This course provides students with an understanding of the issues and introduces some of the skills necessary to successfully manage a business's relationship with government.
Limited enrolment: 60
Prerequisite: MGTA03Y or [MGTA03H & MGTA04H]

MGTC56H3 Building Internet Commerce Ventures
This highly interactive hands-on course provides students with a set of theoretical and practical skills necessary to develop an internet commerce enterprise or to organize online transaction delivery of administrative services within the government agency.
Limited enrolment: 60
Prerequisite: MGTA03H & [MGTC19H or MGTC36H]

MGTC57H3 Business Negotiation
An introduction to the theory and practice of negotiation in business. This course develops approaches and tactics to use in different forums of negotiation, and an introduction to traditional and emerging procedures for resolving disputes. To gain practical experience, students will participate in exercises which simulate negotiations.
Limited enrolment: 60
Exclusion: MGTC54Y
Prerequisite: [MGTA02Y or MGTA03H & MGTA04H] or [MGTB23H & MGB29H or MGTC27Y]

MGTC55H3 Introduction to Industrial Relations
An overview of the industrial system and process. The course will introduce students to industrial relations theory, the roles of unions and management, law, strikes, grievance arbitration, occupational health and safety, and the history of the industrial relations system. Students will participate in collective bargaining simulations.
Limited enrolment: 60
Exclusion: MGTC54Y
Prerequisite: Completion of at least ten full-credit equivalents in [ECMA01H & ECMA03H (ECMA03Y)] or [ECMA04H & ECMA06H or (ECMA02Y) & [MGTA02Y or MGTA03H & MGTA04H]

MGTC63H3 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.
Limited enrolment: 20
Prerequisite: MGTB03H

MGTC58H3 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.
Limited enrolment: 20
Prerequisite: MGTH03H

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.
Limited enrolment: 60
Exclusion: PHIL80H1
Prerequisite: MGTA02Y or [MGTA03H & MGTA04H]

MGTC60H3 Introduction to Operations Management
Introduces the student to the design and control problems of systems that transform inputs into outputs, with emphasis on making major strategic, tactical, and operational decisions in the operations function. The course also covers several Management Science approaches used to solve the associated problems.
Limited enrolment: 60
Exclusion: MGTC57H3
Prerequisite: [ECMA04H & ECMA06H (ECMA06Y) or ECMA04Y & ECMA06H (ECMA06Y) & [ECMB11H or ECMB09Y or MGTH01H]

MGTC71H3 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. An each type of derivative security is introduced, its applications in investments and general risk management will be discussed.
Limited enrolment: 50
Exclusion: MGTA03H & MGTA05H & [MGTA03H or MGTA02Y]
Corequisite: MGTC09H1

MGTC74H3 Analysis for Decision-Making
Introduction to Management Science approaches to dealing with decision-making situations, including discussions of problem definitions, objectives, constraints, model construction and verification, development of solutions, sensitivity analysis and interpretation. Topics include: decision analysis, mathematical programming, network methods, dynamic programming and waiting-line models. Enrolment is limited to students registered in Programs requiring this course.
Limited enrolment: 60
Exclusion: [MATA27H or (MATA28Y)] & [ECMB02H or (ECMB04Y)] & [ECMB11H or ECMB12H or ECMB09Y]
MGT275H3 Operations Management: A Mathematical Approach
Introduction to the broad scope and major strategic, tactical, and operational decisions in Operations Management. Topics include: forecasting, long-range capacity planning, location and layout of facilities, aggregate planning, project management, inventory control, and production scheduling. Limited enrolment: 50
Exclusion: MGT260H, MGT374H1, (MGT274H6)
Prerequisite: MGT24H6

MGT285H1 Marketing in the Information Age
Information technology has had a radical impact on the marketing of even common consumer goods. This course allows students to become conversant with the implications and implementations of Internet-related changes on business. Students will gain experience in critiquing web-sites of existing companies. Limited enrolment: 40
Prerequisite: CSCA20H3, & [MGT104H1 or (MGT304H1)]

MGT207H3 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. Instruction involves lectures and projects including computer analysis. Limited enrolment: 40
Exclusion: MGT407H
Prerequisite: [ECMB11H & ECMB12H or ECMB20Y] & (MGT104H1) & [MGT104H1 or (MGT304H1)]

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 behavioral sciences dealing with perception, personality, psychological appeals, and their application to advertising as persuasive communication. Students will gain experience preparing a promotional plan for a small business. The course will rely on lectures, discussions, audiovisual programs and guest speakers from the local advertising industry. Limited enrolment: 30
Prerequisite: MGT24Y & [MGT104H1 or (MGT304H1)]

MGT213H3 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. Limited enrolment: 30
Prerequisite: MGT24Y & [MGT104H1 or (MGT304H1)]

MGT214H3 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. Limited enrolment: 30
Prerequisite: [MGT23H1 & MGT23H9 or MGT27Y] & (MGT24H1 or (MGT24H1)]

MGT215H3 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. Limited enrolment: 30
Prerequisite: MGT212H

MGT224H3 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. Limited enrolment: 30
Prerequisite: [MGT23H1 & MGT23H9 or MGT27Y] & (MGT24H1 or (MGT24H1)]

MGT225H3 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: [MGT23H1 & MGT23H9 or MGT27Y] & [MGT24H1 or (MGT24H1)]

MGT226H3 Training and Development
This course is designed to teach students about the training and development process. Topics include how training and development fits within the larger organizational context as well as learning, needs analysis, the design and delivery of training programs, on and off-the-job training methods, the transfer of training, and training evaluation.
Prerequisite: MGT22H1

MGT227H3 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.
Limited enrolment: Limited enrolment: 40
Prerequisite: MGT22H1

MGT228H3 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.
Limited enrolment: 40
Prerequisite: MGT22H1

MGT240H5 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.
Limited enrolment: 30
Prerequisite: Completion of at least 10 full-credit equivalents in the B.B.A. program

MGT250H3 Advanced Financial Accounting
Consideration of accounting practice in the context of accounting theory and concepts for a number of areas including inter-corporate investments, and foreign currency translation.
Limited enrolment: 60
Prerequisite: MGT23H7 & MGT23H8

MGT255H3 Current Issues in Financial Accounting
This course will deal with a number of topics in current accounting literature, with particular reference to the standard-setting process and the problem of the development of theories of, and for, accounting. Topics may also include not-for-profit and government accounting, deferred taxes and pensions, and international harmonization issues.
Limited enrolment: 60
Prerequisite: MGT23H7 & MGT23H8
MGT035H3 Advanced Auditing and
Auditing in a Computer Environment

This course focuses on multi-competency case analysis and current issues of concern to Chartered Accountancy (CA) students. Cases will strategically include pervasive qualities and skills, ethical behaviour and professionalism, as well as the specific competency areas outlined in the CIA’s CA Candidates’ Competency Map. Issues include Corporate Governance, Revenue Recognition, Off-Balance Sheet Risks and Financial Instruments.

Limited enrolment: 40
Prerequisite: MGT037H & MGT038H

MGT037H3 Advanced 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.

Limited enrolment: 60
Prerequisite: MGT037H

MGT039H3 Advanced 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.

Limited enrolment: 50
Prerequisite: MGT070H or MGT072Y or permission of the instructor

MGT070H3 Advanced Financial Management

This course reinforces and expands upon the topics covered in MGT070H and MGT072Y. 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.

Limited enrolment: 50
Prerequisite: MGT070H or MGT072Y

MGT073H3 Investments

This course deals with fundamental elements of investments. Basic concepts and techniques are introduced for various topics such as risk and return characteristics, optimal portfolio construction, security analysis, investments in stocks, bonds and derivative securities, and portfolio performance measurements.

Limited enrolment: 60
Exclusions: MGT070H
Prerequisite: MGT070H or MGT072Y

MGT080H3 Supervised Reading Course

This course is intended for upper-level students whose interests are not covered in one of the other Management courses normally offered. The course will only be offered when a faculty member is available for supervision and would only be available to students whose Management performance has been well above average.

Prerequisite: Permission of the instructor

Mathematics (B.Sc.)

Faculty List

E.W. Ellers, Ph.D. (Hamberg), Professor Emeritus
R.W. Sharp, M.Sc., Ph.D. (Yale), Professor Emeritus
J. Finneislander, M.A. (Waterloo), Ph.D. (Penn. State), P.R.S.C., University Professor
R.O. Buchweitz, Ph.D. (Hannover), Professor
M. Goldstein, Ph.D. (Twickenham), Professor
L.C. Jeffery, A.B. (Princeton), M.A. (Cambridge), D. Phil. (Oxford), Professor
E. Mendelson, B.Sc., M.Sc. (Manitoba), Ph.D. (McGill), Professor
P. Selick, B.Sc., M.Sc., Ph.D. (Princeton), Professor
P. Szery, Ph.D. (Purdue), Associate Professor
J. Scherk, D.Phil. (Oxford), Associate Professor
A. Butchart, Ph.D. (Stanford), Assistant Professor
B. Vinay, Ph.D. (Berkley), Assistant Professor
N. Cheredniki, Ph.D. (Moscow State Tech. University), Senior Lecturer
E. Moore, M.A. (Memorial), Ph.D. (Toronto), Senior Lecturer
S.C. Trevilian, M.Sc. (Toronto), Senior Lecturer
B. Grinell, Ph.D. (Queen’s), Lecturer
X. Jiang, B.Sc., M.Sc. Ph.D. (Glasgow), Lecturer
G. Tudos, B.Sc., M.Sc.(Bucharest), PDKY(York), Lecturer

Our Mathematics begins 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 are the tools for quantum mechanics. Similarly, graph theory, combinatorics and number theory play a major role in computer science.

The Specialist Programs in Mathematics and in Mathematics and Its Applications are eligible for inclusion in the Co-operative Program in Mathematical and Physical Sciences and the Early Teacher Project in Mathematical and Physical Sciences. Please refer to the Physical Sciences Scarborough and to the Co-operative sections of this Calendar for further information.

SPECIALIST PROGRAM IN MATHEMATICS

Supervisor of Studies: E. Moore (416-287-7267) mail: enmoore@utsc.utoronto.ca

The Specialist Program in Mathematics is designed to give students a thorough grounding in the 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 credit equivalents - FCEs):
   CSCA4H1 Introduction to Computer Science
   [MATA2H1 Linear Algebra I
   or (MATA1H1) Calculus I (DAC)
   or (MATB3H1) Calculus II for Mathematical Sciences
   PHYA1H1 Introduction to Physics I
   PHYA2H1 Introduction to Physics II

2. (2.5 FCEs):
   [CSCB0H1 Software Design
   or [CSCB3H1 Introduction to the Theory of Computation
   MATB2H1 Linear Algebra II
   MATB4H1 Techniques of the Calculus of Several Variables I
   MATB4H3 Techniques of the Calculus of Several Variables II
   MATB4H4 Introduction to Analysis

3. (1.5 FCEs):
   MATB4H4 Differential Equations I
   STAB5H1 An Introduction to Probability
   STAB5H2 An Introduction to Statistics
   or [MATC2H1] Introduction to Number Theory
   or [MATC2H1] Classical Plane Geometries and their Transformations

4. (1.0 FCEs):
   MATC3H1 Complex Variables
   MATC4H6 Differential Equations II

5. (1.0 FCEs):
   MATB6H1 Linear Programming and Optimization
   MATC3H5 Chaos, Fractals and Dynamics
   MATC3H7 MATC3H9 Introduction to Real Analysis
   MATC3H1 Introduction to Mathematical Finance
   or MATC5H4 Complex Variables II

7. (0.5 FCEs):
   CSCC3H8 Numerical Algebra and Optimization
   CSCC3H9 Numerical Approximation, Integration and Ordinary Differential Equations
   MATC3H9 Introduction to Mathematical Logic
   MATC3H6 Coding Theory and Cryptography
   MATC3D9 Graph Theory and Algorithms for its Applications
   MATC4H1 Introduction to Combinatorics

8. (1.0 FCE from MAT at B-, C-, or D-level.

9. (0.5 FCEs):
   CSCD0H1 Social Impact of Information Technology
   or [PSCD0H2] Current Questions in Mathematics and Science

Note: [PSCD0H2] is a required course for ETP students.

Recommended course: PHYB21H

Mathematics 219

MAJOR PROGRAM IN MATHEMATICS
Supervisor of Studies: N. Cheredek (416-287-7226) Email: n.cheredek@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.


Program Requirements
This program requires eight full credits.

1. Core Courses:
   [CSCA4H1 Introduction to Computer Science
   or [PSCB5H1] Introduction to Scientific Computing
   [MATA2H1 Linear Algebra I
   [MATA1H1 Calculus I
   or (MATA3H1 Calculus II for Physical Sciences
   or [MATA7H1] Calculus III for Mathematical Sciences (recommended)
   [MATB2H1 Linear Algebra II
   [MATB4H1 Calculus of Several Variables I
   [MATB4H2 Calculus of Several Variables II
   STAB5H1 Introduction to Probability
   STAB5H2 Introduction to Statistics

2. Analytic: 1.5 FCE:
   MATB4H1, MATB4H2, MATC3H8, MATC3H9, MATC3H1, MATC3H9 (MATC3H8), MATC3H4
   or MATC3H5

3. Algebra and Geometry: 1.0 FCE:
   MATB6H1, MATC3H8, MATC3H9, MATC2H1, MATC2H3, MATC3H8, MATC3H1, MATC3H9
   or MATC4H1

4. Applications: 1.0 FCE:
   [CSC 3-level, CSC D-level, MATC3H8, MATC3H9, MATC3H1, MATC3H6, STAB5H1, any STA C-level course, any STA-300, STA-400 level course on the St. George campus

SPECIALIST PROGRAM IN MATHEMATICS AND ITS APPLICATIONS
Supervisor of Studies: E. Moore (416-287-7287) Email: emoore@u reinc.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
Core for all program streams:
1. (2.6 full credit equivalents):
   [CSCE481] Introduction to Computer Science
   or
   [PSCB571] Introduction to Scientific Computing (if PSCB571 is selected it should be taken in second year)*
   [MATA25H] Linear Algebra I
   [MATA36H] Calculus I
   or
   [MATA31H] Calculus I (OAC)
   [MATA34H] Calculus II for Physical Sciences
   or
   [MATA37H] Calculus II for Mathematical Sciences (recommended)

2. (2.5 FCE):
   [MATA24H] Linear Algebra II
   [MATA41H] Techniques of the Calculus of Several Variables I
   [MATA42H] Techniques of the Calculus of Several Variables II
   [MATA43H] Introduction to Analysis
   [MATA44H] Differential Equations I

3. (1.0 FCE):
   [STAB37H] An Introduction to Probability**
   [STAB57H] An Introduction to Statistics**

4. (0.5 FCE):
   [MATC31H] Groups and Symmetry

5. (0.5 FCE):
   [MATC34H] Complex Variables
   * PSCB571 is required for the Computational Physical Sciences stream
   ** STAB25H and STAB57H must be taken in second year for the Statistics stream

AREAS OF CONCENTRATION:
Teaching Stream:

1. (0.8 FCE):
   [MATC32H] Fields and Groups
   [MATC33H] Introduction to Number Theory
   [MATC22H] Classical Plane Geometries and their Transformations
   [MATC32H] Graph Theory and Algorithms for its Applications
   or
   [MATC44H] Introduction to Combinatorics

2. (1.5 FCE): Three of:
   [MATB31H] Linear Programming and Optimization
   [MATC34H] Mathematical Logic
   [MATC41H] Coding Theory and Cryptography
   [MATC39H] Chaos, Fractals and Dynamics
   [MATC37H] [MATC39H] Introduction to Real Analysis
   [MATC46H] Differential Equations II
   [MATC48H] Differential Geometry I
   [MATC65H] Complex Variables I

3. (2.6 FCE): Four C- or D-level CSC, MAT or STA half-credit courses

4. (0.5 FCE):
   [PSCD20H] Current Questions in Mathematics and Science
   or
   [CSCD03H] Social Impact of Information Technology

Note: Students following this stream are encouraged to apply for acceptance into the Early Teacher Project. ETP students are required to take PSCD03H.

Statistics Stream:
1. (2.5 FCE):
   [MATC56H] Linear Programming and Optimization
   [MATC02H] Fields and Groups
   [MATC25H] Classical Plane Geometries and their Transformations
   [MATC46H] Differential Equations II
   [STAC47H] Regression Analysis

2. (1.0 FCE): Two of:
   [MATC35H] Chaos, Fractals and Dynamics
   [MATC37H] [MATC39H] Introduction to Real Analysis
   [MATC53H] Complex Analysis II

3. (2.0 FCE) from C-level STA courses and 300- and 400-level STA courses on the St. George campus.

4. (0.5 FCE):
   [PSCD20H] Current Questions in Mathematics and Science
   or
   [CSCD03H] Social Impact of Information Technology

Computational Physical Sciences Stream:
1. (3.0 FCE):
   [ASTA41H] Introduction to Astronomy and Astrophysics I: The Sun and Planets
   [ASTA42H] Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
   [CSCC35H] Numerical Algebra and Optimization
   [CSCC41H] Numerical Approximation, Integration and Ordinary Differential Equations
   [MATB33H] Linear Programming and Optimization
   [MATC39H] Chaos, Fractals and Dynamics
   [MATC44H] Introduction to Combinatorics
   [MATC46H] Differential Equations II
   [PHYA10H] Introduction to Physics I
   [PHYA21H] Introduction to Physics II

2. (1.5 FCE): Three of:
   [PHYB32H] Electricity and Magnetism
   [PHYB34H] Introduction to Quantum Physics
   [PHYB26H] Vibrations and Waves
   [ASTC21H] Solar System and Stellar Astrophysics
   [ASTC22H] Galactic and Extragalactic Astrophysics

3. (0.5 FCE): One of:
   [CSCD10H] Computer Graphics
   [MATC61H] Introduction to Mathematical Finance
   [MATC65H] Complex Variables II
   [MATD01H] Readings in Mathematics
   [PSCD20H] Current Questions in Mathematics and Science
   or
   [CSCD03H] Social Impact of Information Technology

Computer Science Stream:
See Joint Mathematics stream in the Computer Science Specialist Program

Design Your Own Stream:
1. (6.0 FCE): 12 half-credit courses chosen with the approval of the program supervisor for Mathematics and Its Applications

2. (0.5 FCE):
   [PSCD20H] Current Questions in Mathematics and Science
   or
   [CSCD03H] Social Impact of Information Technology

SPECIALIST PROGRAM IN LIBERAL SCIENCES
(See the Physical Sciences Scarborough section of this Calendar.)
MAT1AHL NON-CREDIT: Preparation for Calculus I
Rates of change, concepts and skills of differential calculus applied to polynomials, rational, exponential, and logarithmic functions; may include background material on functions, analytic geometry, and trigonometry, as well as on calculus.
Note: This is a NON-CREDIT course limited to non-Ontario students whose high school mathematics preparation is strong but does not include calculus. A grade of 60% or more in MAT1AHL will be accepted as the prerequisite for MAT2AHL or MAT3AHL.
Exclusion: High school calculus
Prerequisite: Solid background in high school mathematics

MAT2AHL Linear Algebra I
Systems of linear equations, matrices, Gaussian elimination; vector spaces, basis, dimension; inner product spaces, geometry in R^n; linear transformations; determinants; Cauchy’s rule; eigenvalues and eigenvectors, diagonalization; orthogonal transformations.
Exclusion: (MAT2AHL, MAT223H)
Prerequisite: [Grade 12 Advanced Functions and Introductory Calculus & Geometry and Discrete Mathematics] or [OAC Calculus & OAC Algebra and Geometry]

MAT2A2H Introduction to Optimization
Topics to be covered include: R^n as a model space in economics, contour maps, exponential functions and logarithms, with applications to finance; review of differential calculus in one variable, marginal analysis; vectors, differential calculus of several variables and optimization, with applications to economics.
Note: This course is intended for students in Management Programs. It does not satisfy the requirements for any Program in the Computer and Mathematical Sciences or Physical and Environmental Sciences or Life Sciences and it may not be used as a prerequisite for any further Mathematics course.
Exclusion: (MAT2AHL, MAT223H)


MAT2A3HL Calculus I
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 Advanced Functions and Introductory Calculus
Note: Students who wish to continue with MAT2A3HL or MAT2A7HL will need one of Grade 12 Geometry and Discrete Mathematics or Mathematics of Data Management

MAT2A3HL Calculus II for Biological Sciences
A calculus course emphasizing examples and applications in the biological and environmental sciences: discrete probability; basic statistics; hypothesis testing, distribution analysis. Basic calculus: extrema, growth rates, diffusion rates; 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.
Exclusion: MAT2A3HL, MAT2A7HL, MAT2A20HL, MAT2A21HL

MAT2A4HL 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: MAT2A3HL or MAT2A7HL or MAT2A20HL or MAT2A21HL

MAT2A6HL Calculus II 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: [MAT2A3HL or MAT2A7HL] & [one of Grade 12 Geometry and Discrete Mathematics or Mathematics of Data Management]

MAT2A7HL Calculus II for Mathematical Sciences
A calculus course providing a conceptual approach for students needing more than techniques and applications. An introduction to proof and the theoretical basis of basic calculus emphasizing intuition. Fundamental Theorem of Calculus, Taylor’s Theorem, sequences and series, power series and differential equations.
Prerequisite: [MAT2A3HL or MAT2A7HL] & [one of Grade 12 Geometry and Discrete Mathematics or Mathematics of Data Management]

MAT2A24HL Linear Algebra II
Fields, vector spaces over a field, linear transformations; diagonalizability, invariant subspaces, Cayley-Hamilton theorem; hermitian inner product, normal, self-adjoint and unitary operators, method of least squares, introduction to coding theory.
Exclusion: (MAT2A4H), MAT2A24H
Prerequisite: MAT2A23HL or MAT2A22HL

MAT2A43HL Techniques of the Calculus of Several Variables II
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.
Exclusion: (MAT2A3HL, MAT2A7HL, MAT2A8HL, MAT2A9HL, MAT2A20HL, MAT2A21HL, MAT2A22HL, MAT2A23HL, MAT2A24HL)
Prerequisite: [MAT2A3HL or MAT2A7HL] & [one of Grade 12 Geometry and Discrete Mathematics or Mathematics of Data Management]

MAT2A42H Introduction to Analysis
Calculus revisited rigorously: properties of real numbers, limits, compactness, topology of Euclidean space, continuity, differentiability, fundamental theorem, Riemann integral.
Exclusion: MAT2A42H
Prerequisite: MAT1A42HL or MAT1A37HL & MAT2A42H

MAT2A42H Differential Equations I
Ordinary differential equations of the first and second order, existence and uniqueness, solutions by series and integrals; linear systems of first order; non-linear equations; difference equations.
Exclusion: (MAT3C3HL, MAT2A40HL, MAT2A79HL)
Prerequisite: [MAT2A8HL or MAT2A79HL] & [MAT2A60HL & MAT2A23HL]
Corequisites: MAT2A41HL & MAT2A24H
MATB61H3 Linear Programming and Optimization
Linear programming, simplex algorithm, duality theory, interior point method; quadratic and convex optimization, stochastic programming; applications to portfolio optimization and operations research.
Exclusion: APME26H3, APME26H4
Prerequisite: MATA23H3
Corequisite: MATB42H3

MATC09H3 Groups and Symmetry
Exclusion: (MATC10H3, MATB31H3), MAT30H3, MAT347Y
Prerequisite: MATA37H3 & [MATB24H3 or MAT22H4]

MATC20H3 Fields and Groups
Abstract group theory. Sylow theorems, groups of small order, simple groups, classification of finite abelian groups. Fields and Galois theory; polynomials over a field, field extensions; constructibility; Galois groups of polynomials, in particular cubics; insolvability of quintics by radicals.
Exclusion: (MATB22H3, MAT30H3, MAT347Y)
Prerequisite: MATC01H3

MATC09H3 Introduction to Mathematical Logic
Predicate calculus. Relationship between truth and provability; Gödel's completeness theorem. First order arithmetic as an example of a first-order system; Godel's incompleteness theorem; outline of its proof. Introduction to recursive functions. Exclusion: MAT30H3, CSC343H
Prerequisite: MATB24H3 & [MATB43H or CSC304H or (CSC303H)]

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.
Exclusion: (MATB30H3, MAT31H)
Prerequisite: MATA34H3 or MATB37H3 or (MATB26H3) & MATB24H

MATC16H3 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: MATB42H3 & STAB52H3
Corequisite: MATC15H3 recommended

MATC25H3 Classical Plane Geometries and their Transformations
An introduction to geometry with a selection of topics from the following: symmetry and symmetry groups, finite geometries and applications, non-Euclidean geometry.
Exclusion: (MATB30H3, MAT325H)
Prerequisite: MATA23H3
Corequisite: MATC06H3

MATC26H3 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, task form scheduling, travelling salesman, tournament scheduling, experimental design and finite geometries.
Prerequisite: [MATB24H or CSC343H or (CSC355H)] & at least one other B-level course in Mathematics or Computer Science

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.
Exclusion: (MATC36H3, MAT33H3)
Prerequisite: MATB24H

MATC35H3 Chaos, Fractals and Dynamics
Topics covered include: metric spaces, dynamics on the real line, fixed points, periodic points, attractors, repellers, Sharkovski'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.
Exclusion: MAT33H3
Prerequisite: MATB34H3

MATC37H3 Introduction to Real Analysis
Exclusion: MAT33H3, (MATC34H), (MAT31H)
Prerequisite: MATB43H

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.
Exclusion: (MATC31H, MAT344H)
Prerequisite: MATB34H

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.
Exclusion: (MATC54H3, APMA34H3)
Prerequisite: MATB42H & MATB24H
Corequisite: MATB42H

MATC65H3 Introduction to Mathematical Finance
Brownian motion, Fokker-Planck equation, stopping times, reflection principle, Girsanov theorem; Stochastic calculus, Itô's lemma, martingales; stochastic optimization, Black-Scholes equation. The course provides an introduction to methods of interest in financial mathematics.
Prerequisite: MATB23H, (STAB47H3) or STAB23H
Recommended: STAG26H3
Corequisite: MATB61H3 & MATC46H

MATC68H3 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.
Exclusion: (MATC44H3, MAT363H)
Prerequisite: MATB43H

MATC50H3 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 theorems.
Exclusion: MAT34H3
Prerequisite: MATC54H3

MATD01H3 Readings in Mathematics
Independent study under the direction of a faculty member.
Prerequisite: A GPA of 2.5 or more and consent of the instructor.

MATD20H3 Readings in Mathematics
Independent study under the direction of a faculty member.
Prerequisite: A GPA of 2.5 or more and consent of the instructor.
Music

See the Visual and Performing Arts section of this Calendar.

Neuroscience (B.Sc.)

Faculty List
R. Boonstra, B.Sc. (Calgary), Ph.D. (British Columbia), Professor
J.R. Brown, B.Sc. (Carleton), Ph.D. (Toronto), Professor
J.W. Gurd, B.A. (Mount Allison), Ph.D. (McGill), Professor
G.O. Ivy, B.A. (Drew), Ph.D. (California, Irvine), Professor
R.W. Milgram, B.A. (UCLA), M.A., Ph.D. (McGill), Professor
T.L. Petri, B.Sc., M.A. (Louisiana), Ph.D. (Florida), Professor
K.K. Zakaris, B.A., M.A., Ph.D. (York), Associate Professor
S. Eib, B.Sc. (University of Wisconsin), M.A. (Concordia), Ph.D. (Concordia), Assistant Professor
A.C. Macon, B.Sc. (Georgia), M.Sc., Ph.D. (Toronto), Assistant Professor
B.A. Stewart, B.Sc. (Georgia), M.Sc., Ph.D. (Toronto), Assistant Professor
J.C. Leblouillier, B.Sc., M.A., Ph.D. (Toronto), Lecturer

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 neurology 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 neuro-dysfunction 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 a very few instances, courses from the other campuses may be used to satisfy program requirements. However such substitutions must be pre-approved by the Supervisor of Studies, in writing on an official form.

First-Year Students in Neuroscience
BGA10H, BGA10H, CHMA10H, CHMA10H, PSYA01H and PSYA02H are recommended in the first year if you are intending to pursue a Specialist or Major Program in Neuroscience.

SPECIALIST PROGRAM IN NEUROSCIENCE

Supervisor of Studies: G. Ivy (Office: S560) Email: ivy@artsci.yorku.ca

Program Requirements:
The Program requires completion of 12.5 full credit equivalents (FCEs):

1. The following 3 FCEs:
BGA10H Introductory Biology: Part I
BGA10H Introductory Biology: Part II
CHMA10H Introductory Chemistry I: Structure and Bonding

2. The following 4.5 FCEs:
BGB10H Cell Biology
BGB10H Molecular Aspects of Cellular and Genetic Processes
BGB50H Mammalian Physiology I
OR
NB20H Animal Physiology
BGB50H Animal Physiology Laboratory
CHMB41H Organic Chemistry I
CHMB42H Organic Chemistry II
NB20H Neuroscience I: Cell Anatomy and Physiology
PSYB07H Data Analysis in Psychology (STA22H may not be used to fulfill this requirement)

3. The following 3.5 FCEs:
BGC12H Biochemistry I: Proteins & Enzymes
BGC12H Biochemistry II: Bioenergetics & Metabolism
NB20H Neurobiology (Invertebrate Neurobiology)
NB20H Neuroscience II: Learning & Motivation
NB20H Neuroscience Laboratory
NB20H Neuroscience III: Sensory & Motor Systems
PSY108H Advanced Data Analysis in Psychology

4. 1.5 FCEs from the following (Supervised Study or Thesis courses can be used to fulfill a maximum of 0.5 FCE in this category)
BGC21H Histology: Cells and Tissues
BGYD10H Topics in Cellular and Molecular Neurobiology
BGYD40H Vertebrate Endocrinology
BGYD40H Animal Communication
NB20H Developmental Neurobiology
NB20H Synaptic Organization of the Brain
NB20H Neuroanatomy of the Brain
NB20H Neurobiology of the Nervous System
NB20H Pathology of the Nervous System
NB20H Neuropathology
NB20H Pathology of the Nervous System
NB20H Pathology of Aging
NB20H Pathology of the Nervous System
PSY211H Clinical Neuropsychology
PSY207H Drugs and the Brain
PSYD531H Current Topics in Abnormal Psychology

SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE

Supervisor of Studies: G. Ivy (Office: S560) Email: ivy@artsci.yorku.ca

The Neuroscience Co-operative program is designed to provide the student with a broad education in neuroscience, including neuro-anatomy, neuro-physiology, 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 sub-fields 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
Enrolment in the program is limited.

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 ten full credits including: BGYB10H, BGYB11H, BGYB210H, BGYB30H, BGYB32H, CHMB14H, CHMB24H, NROB20H, NROC46H, and non-credit Arts & Science Co-op Work Term Preparation course.

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 14.5 full credit equivalents including the 12.5 FCEs as specified in the Specialist Program in Neuroscience, plus the following:

1. BGYB12H Cell and Molecular Biology Laboratory
2. BGYC21H Practical Approaches to Biochemistry
3. 1.0 FCE from the courses listed by the Departments of Humanities, Management or Social Sciences
4. The Arts & Science Co-op Work Term Preparation course

MAJOR PROGRAM IN NEUROSCIENCE
Supervisor of Students: G. Ivy (Office: S549) Email: ivy@atac.utoronto.ca

Program Requirements
The Program requires seven full-credit equivalencies. Students who wish to combine the Major Program in Neuroscience with the Major in Integrative Biology or the Major in Psychology are advised that they must present 12 distinct full-credit equivalents 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 FCEs:
   BOYB101H Introductory Biology: Part I
   BOYB102H Introductory Biology: Part II
   CHMA10H Introductory Chemistry I: Structure and Bonding
   CHMA11H Introductory Chemistry II: Reactions and Mechanisms
   PSYA01H Introductory Psychology: Part I
   PSYA02H Introductory Psychology: Part II
2. The following 1.5 FCEs:
   NROD50H Neuroscience I: Cell Anatomy & Physiology
   NROC21H Neuroscience II: Learning and Motivation
   NROC41H Neuroscience III: Sensory and Motor Systems

3. 2.0 FCEs from the following:
   BGYB10H Cell Biology
   BGYB11H Molecular Aspects of Cellular and Genetic Processes
   BGYB31H Mammalian Physiology I
   or
   NROB30H Animal Physiology
   BGYB32H Animal Physiology Laboratory
   STA122H Statistics I
   or
   PSYB07H Data Analysis in Psychology
   PSYB165H Human Brain and Behaviour

4. 0.5 FCE from the following:
   BGYC21H Vertebrate Histology: Cells and Tissues
   BGYD16H Topics in Cellular and Molecular Neurobiology
   BGYD24H Vertebrate Endocrinology
   BGYD45H Animal Communication
   NROC34H Neuroethology (Vertebrate Neurobiology)
   NROC35H Developmental Neurobiology
   NROC36H Neuroscience Laboratory
   NROC39H Synaptic Organization of the Brain
   NROH91H Supervised Study in Neuroscience
   NROH92H Supervised Study in Neuroscience
   NROD68H Current Topics in Neuroscience
   NROD62H Neuroplasticity
   NROD3H Advanced Neuroscience Laboratory
   NROD65H Pathologies of the Nervous System
   NROD67H Psychology of Aging
   NROD98Y Thesis in Neuroscience
   PSYC31H Clinical Neuropsychology
   PSYC32H Drugs and the Brain
   PSYD33H Current Topics in Abnormal Psychology

NROB50H Neuroscience I: Cell Anatomy and Physiology
Overview of structure and function of the nervous system.
Topics include neuroanatomy, structure and function of neurons and glia, neurochemistry, neural mechanisms of communication at the cellular and molecular levels, and intracellular signal transduction in neurons. (CHMA16H & CHMA11H or [CHMA101Y]) is strongly recommended for students with no Chemistry background. Exclusion: PSYB290H, PSYB391H, ZOO332H
Prerequisite: [BGYA01H & BGYA02H or (BGYA01Y) & [PSYA01H & PSYA02H or (PSYA01Y)]

NROC34H Neuroethology
Neural basis of natural behaviour, integrative function of the nervous system; motor and sensory systems; mechanisms of decision-making, initiating action, co-ordination, learning, and memory. Topics vary from year to year. Prerequisite: BGYB10H or (BGYB30H) or (NROB30H)

NROC35H Developmental Neurobiology
An examination of the development of the nervous system with emphasis on cellular and molecular mechanisms. Topics will include differentiation of nerve cells, migration of neurones, pathfinding, synaptogenesis and the rearrangement of neuronal connections. Offered in alternate years with BGYD16H. Prerequisite: BGYB10H & (BGYD16H) or (NROB50H) or NROB60H

NROD50H Neuroscience I: Cell Anatomy & Physiology

NROC34H Neuroethology

NROC35H Developmental Neurobiology

NROD50H Neuroscience I: Cell Anatomy & Physiology

NROC34H Neuroethology

NROC35H Developmental Neurobiology

NROD50H Neuroscience I: Cell Anatomy & Physiology

NROC34H Neuroethology

NROC35H Developmental Neurobiology

NROD50H Neuroscience I: Cell Anatomy & Physiology

NROC34H Neuroethology

NROC35H Developmental Neurobiology

NROD50H Neuroscience I: Cell Anatomy & Physiology
NROCS6H3 Neurosceince II: 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 role of molecular basis of learning and memory.
Exclusion: PSY293H
Prerequisite: NROB60H1 plus one other B-level half-credit in PSY

NROC36H3 Neurosceince Laboratory
Instruction in a variety of techniques used in investigations of nervous system function.
Behavioral techniques, surgery, brain lesioning, perfusion, histology, animal ethics and the preparation of scientific papers will be covered.
Limited enrolment: 20
Exclusion: PSY399H
Prerequisite: [PSY307H1 or STAB22H1] & [NROB60H1]

NROC46H3 Neurosceince III: 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.
Exclusion: PSY293H
Prerequisite: NROB60H1

NROC66H3 Synaptic Organization 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: NROB60H1

NROD66H3 Pathologies of the Nervous System
An independent study course designed to permit intensive examination of the literature of a selected topic and/or laboratory or field project in neuroscience.
Supervision of the work is arranged by mutual agreement between student and instructor.
Frequent consultation with the supervisor is necessary and extensive library research and/or data collection will be required.
Such a project will culminate in a written submission.
Students must obtain a permission form from the Life Sciences Office (SS21B) that is to be completed and signed by the intended supervisor, and returned to the Life Sciences 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 are further advised to verify first with the Supervisor of Studies that the prospective project supervisor currently holds a cross-appointment at the University of Toronto and that the project is acceptable.
In addition, the student must have a co-supervisor who is a member of the Neuroscience group at Scarborough.
Exclusion: PSY393H, BOVD10Y
Prerequisites: Three full-credit equivalents in Psychology, Biology or Neurosciences and permission of the instructor.

NROD00H1 Current Topics in Neuroscience
An intensive examination of selected issues and research problems in the Neurosciences.
Exclusion: PSY393H
Prerequisite: NROC60H1 & NROC64H1

NROD63H5 Advanced Neurosciences Laboratory
Instruction in a variety of advanced techniques used in investigations of nervous system function. Advanced behavioral, surgical, and histological techniques used in the study of neuroscience will be covered.
Limited enrolment: 20
Exclusion: PSY393H
Prerequisite: NROC63H
Corequisite: NROC61H & PSYC88H

NROD69H3 Thesis in Neuroscience
This course offers qualified students the opportunity to engage in a year-long research project under the supervision of a faculty member. Students will meet as a group with the course co-ordinator to present their own research proposals, to approve the proposals of others and to discuss the results of their investigations.
The research project will culminate in a written report and an oral presentation at the Neuroscience Research Day in the Spring.
Students must obtain a permission form from the Life Sciences Office (SS21B) that is to be completed and signed by the intended supervisor, and returned to the Life Sciences 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 are further advised to verify first with the Supervisor of Studies that the prospective project supervisor currently holds a cross-appointment at the University of Toronto. In addition, the student must have a co-supervisor who is a member of the Neuroscience group at Scarborough.
Exclusion: PSY393H, BOVD10Y
Prerequisite: Satisfactory completion of fifteen full-credit equivalents in any discipline, including PSYB07H1 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 (B.A.)
Faculty List
L. Chan, B.A., M.A., Ph.D. (ABD) (Toronto), Lecturer

MAJOR (JJOINT) PROGRAM IN NEW MEDIA STUDIES
Supervisor of Studies: L. Chan; Email: chanl@atc.toronto.ca
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 which includes a field placement and a professional practice course.
New information technologies and digital media (particularly images, text, and sound) are having a profound impact on communication, including the ways research and teaching are conducted in many disciplines. While providing the technical knowledge required in new media applications, the Program also focuses on the theory and critical understanding of how digital media are used to enhance creative communications in a variety of contexts.
Program Admission
Limited enrollment.
For direct admission from secondary school or from another UofT Faculty or from another post-secondary institution, see the Joint Programs with Centennial College section of this Calendar.
Students already at U of T will be considered for admission after completing 4 full credits. Students must request the program in ROSI by the appropriate deadline and submit an application form and portfolio to the program supervisor by the same deadline. (For more details on application procedures and deadlines, see the Registrar's Office website at http://www.ontario.utoronto.ca/registrar/) Following receipt of the applications, arrangements will be made for the student to take Centennial's design test. Students who do not have a portfolio when beginning university studies should include VPSA62H in their first year program; alternatively, they may wish to enrol in a suitable non-credit course at Centennial College while in the process of preparing a portfolio for evaluation. Students may be required to attend an interview before the decision is made.

Program Requirements
Students must complete 8 full credits including:

1. NMEA208H Introduction to New Media in Humanities and Social Sciences
2. 0.5 credits from among:
   - CSCA402H1S The Why and How of Computing
   - CSCA403H1S Introduction to Computer Programming
   - CSCA440H1S Introduction to Computer Science
   - VPAAD30H3 Computers and the Arts I
3. NMEB202H1S Design in Visual Culture
4. 1.0 full credit equivalents from among the following courses (some courses have prerequisites and/or enrolment restrictions—students should consult the course descriptions and plan accordingly):
   - ECML420H1S Economics of the Media
   - ECML420H1S The Economics of the Internet and E-commerce
   - ENGB92H1S Critical Writing About Narrative
   - ENGB93H1S Critical Writing About Poetry
   - ENGB94H1S Critical Writing About Poetry
   - ENGL455H1S Literature and Media: The Spoken Word and the Visual Page
   - ENGL456H1S Literature and Media: From Page to Screen
   - HIST373H3S History and Media in the United States
   - INST401H1S International Studies and International Communications
   - LLSG1A1H1W Writing Practice: A Course for Non-Native Speakers of English
   - LGOA1A1TH Current Approaches to the Academic Writing Process E: A Course for Non-Native Speakers of English
   - PHIL203H3 Philosophy of Art
   - PHIL205H3 Social Issues
   - PHIL205H3 The Art of Thinking
   - SOCS251H3 Sociology of Mass Media and Communications: Institutions, Technologies and Policies
   - SOCS251H3 Sociology of Mass Media and Communications: Texts and Audiences
   - SOCS280H3 Gender and Information Technology
   - SOCS280H3 Sociology of Culture
   - VPAAD20H3 Collaborations in the Visual and Performing Arts

NMEA2A0H3 Introduction to New Media in the Humanities and Social Sciences
Introduces students to the variety of ways in which new media are used by scholars to enable new modes of enquiry, knowledge representation, and learning. Explores how digital media are used to enhance creative communications and new forms of knowledge representation in a variety of contexts and disciplines.

Limited enrollment: 50
Prerequisite: This course is restricted to students in the New Media Studies Joint Major. A limited number of spaces are open to non-major students, who should get prior approval by the instructor before enrolling in the course.

NMEB202H3 Design in Visual Culture
How do contemporary cultural workers engage the potential of emerging design technologies? CAD, digital networks, robotics, space age materials, exotic social processes, biotechnology and countless other technologies are changing design practices, styles and content. This course offers a conceptual framework for investigating the cultural impact of these new media.

Limited enrollment: 50
Prerequisite: NMEA20H3

NMEA40H1S Digital Fundamentals
This course introduces basic hardware and software for new media. Students will learn basics of HTML, CSS, JavaScript and PHP. This course provides the technical and conceptual understanding of new media that is used to create new media. Limited enrollment: 35
Prerequisite: 10 FCE
Co-requisites: NMEA20H3, NMEA25H3, NMEA2AH

NMEA2A0H3 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 content examines the development and success of writing for print and for new media, and how to integrate text and visual elements.

NMEA2A0H3 Teaching Media History
This course introduces basic teaching strategies and approaches to teaching new media, as well as the history of new media in education and society.
NMEB1043 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.
Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media. Pre-requisite: NMEB102H, NMEA02H, NMEA03H, NMEA04H.

NMEB1043 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. Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media. Pre-requisite: NMEB102H, NMEA02H, NMEA03H, NMEA04H. Corequisite: NMEB091H.

NMEB1053 Application Software for Interactive Media
This course builds on NMEA101H. 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). Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media. Pre-requisite: NMEB102H, NMEA02H, NMEA03H, NMEA04H.

NMEB1063 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 production of new media. Students will also learn to use audio in interactive ways such as soundscapes. Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media. Pre-requisite: NMEB102H, NMEA02H, NMEA03H, NMEA04H. Corequisite: NMEB091H, NMEB100H, NMEB106H, NMEB109H.

NMEC1003 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 convenor and by a supervisor in another suitable academic discipline. Limited enrolment: 35. Pre-requisite: Completion of 15 FCE including NMEA202H, NMEA203H, NMEB064H, NMEB100H, NMEB091H & NMEB104H.

NMEC2033 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. Limited enrolment: 35. Pre-requisite: NMEB1051, NMEB100H, NMEB091H, NMEB098H & NMEB104H.

Paramedicine
(8.0c)
Faculty List
J W. Gurd, B.A. (Mount Allison), Ph.D. (McGill). Professor

SPECIALIST (JOINT) PROGRAM IN PARAMEDICINE

Supervisor of Studies: J. Gurd (416-287-7410) Email: gurd@stsc.ucartoonto.ca
This program may be taken in fulfillment of the requirements of a four-year (20-credit) Honours Degree. 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 diplomas are eligible to take the Ministry of Health exams required to qualify as a Primary Care Paramedic.

Program Admission
Limited enrolment. Applicants must fill out a joint program application form. Applicants must also pass Centennial's screening process (which includes attendance at information sessions, possession of a class F driver's license, medical certificate, completion of a CPR course in the past two years, completion of a standard first aid course). See Centennial's website for complete details at: www.centennialcollege.ca/programs/j/index.html. Applicants may arrange to complete those requirements during the first year of their studies at the University of Toronto at 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 maintain a cumulative grade point average of at least 2.0. Students must complete the following courses (15.5 full credit equivalency):
PMDB295H3 Therapeutic Approaches to Behaviour in Crisis
Focuses on the utilization of effective communication tools when dealing with persons facing health crises. 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 community services and do class presentations. This course is taught on the Centennial campus.
Limited enrolment: Enrolment is restricted to students in the Collaborative Program in Paramedicine.
Prerequisite: [BGYA01H & BGYA02H] or [BGYA01Y & PSYA01H] or [PSYA01Y]
Corequisite: PMDB22H, PMDB41H, BGYB33H

PMDB304H3 Alternations of Human Body Function I
Discusses how human body function is affected by a variety of patho-physiological circumstances. The theoretical framework includes the main concepts of crisis, the adaptation of the body by way of compensatory mechanisms, the failure of these compensatory mechanisms and the resulting physiological manifestations. Students will learn to identify such manifestations. This course is taught on the Centennial campus.
Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine.
Prerequisite: PMDB22H, PMDB25H, PMDB304H, BGYB33H
Corequisite: PMDB33Y, PMDB306H

PMDB303H3 Pre-hospital Care 2: Theory, Lab and Clinical
Provides the necessary knowledge, skill and value base that will enable the student to establish the priorities of assessment and management for persons who are in stress or crisis due to the effects of illness or trauma. The resulting patho-physiological or psychological manifestations are assessed to determine the degree of crisis and/or life threat. This course is taught on the Centennial campus.
Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine.
Prerequisite: PMDB22H, PMDB25H, PMDB41H, BGYB33H
Corequisite: PMDB306H, PMDB33Y

PMDC404H3 Alternations 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

PMDB302H3 Pre-hospital Care 1: Theory and Lab
Allows students to develop the critical thinking skills and problem solving approaches needed to provide quality pre-hospital emergency care. Emphasizes the components of primary and second assessment, and the implementation of patient care based on interpretation of assessment findings. Discusses principles of physical and psycho-social development, and how these apply to the role of the paramedic. This course is taught on the Centennial campus.
Limited enrolment: Enrolment is restricted to students in the Joint Program in Paramedicine.
Prerequisite: [BGYA01H & BGYA02H] or [BGYA01Y, PSYA01H & PSYA02H] or [PSYA01Y]
Corequisite: PMDB21H, PMDB41H, BGYB33H
body's compensatory and decompensatory mechanisms, their manifestations and complications and treatment. This course is taught on the Centennial campus.

Limited enrollment: Enrolment is limited to students in the Specialist Program in Paramedicine.

Prerequisites: PMDB31H, PMDB32Y, PMDB64H, BOGY11H, BOGY23H

Corequisite: PMDC41Y, PMDC43H

PMDC43Y3 Pre-hospital Care 3: Theory, Lab and Field

Combines theory, lab and field applications. New concepts of pediatric 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 on the Centennial campus.

Limited enrollment: Enrolment is limited to students in the Specialist Program in Paramedicine.

Prerequisites: PMDC41H, PMDC42Y, PMDC43H, BOGY10H

Corequisite: PMDC43H

PMDC54Y3 Primary Care Practitioner Integration and Decision Making

Challenges students with increasingly complex decisions involving life-threatening situations, ethical-legal dilemmas, and the application of sound foundational principles and knowledge of pharmacology, patho-physiology, communication, assessment and therapeutic interventions. Students will analyze and discuss real field experiences and case scenarios to further develop their assessment, care and decision-making. This course is taught on the Centennial campus.

Limited enrollment: Enrolment is limited to students in the Specialist Program in Paramedicine.

Prerequisites: PMDC40H, PMDC42Y, PMDC43H, BOGY10H

Corequisite: PMDC54Y

Philosophy (B.A.)

Faculty List

W.C. Geradin, M.A., Ph.D. (Toronto), Professor Emeritus
J.H. Schell, M.A. (Alberta), Ph.D. (Michigan), Professor Emeritus
W.E. Senger, M.A. (Alberta), Ph.D. (Toronto), Professor
K.L. Shin, B.A. (Hong Kong), B.A. (London), M. Phil. (Hong Kong), B. Phil. (Oxford), Ph.D. (Stanford), Professor
R.P. Thompson, M.A., Ph.D. (Toronto), Professor
P. Kremmer, B.Sc. (Toronto), Ph.D. (Pittsburgh), Associate Professor
L. Lampe, B.A., M.A. (Manitoba), Ph.D. (Toronto), Associate Professor
S. Sedivy, B.A. (Toronto), Ph.D. (Pittsburgh), Associate Professor
J. Hawkins, B.A. (Renison), M.A., Ph.D. (Providence), Assistant Professor
M. Lin, B.A. (NYU), Ph.D. (Chicago), Assistant Professor
J. Yan, B.A. (Northwest Univ. of China), M.A. (People's Univ. of China), Ph.D. (Toronto), Assistant Professor

Discipline Representative: P. Kremmer

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 only 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 and usefully at this deeper level. So philosophy emphasizes interpretation and original thought, reasoning, discussion and assessment.

PHIL10H and PHIL11H 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 course 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 either one or two full-course equivalencies in Philosophy, depending on the seminar. (Instructors will admit students whose courses in other disciplines have adequately prepared them for a seminar. Students must provide transcripts when requesting special permission to enrol 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. The Philosophy Study Guide is available at: http://www.ustc.utoronto.ca/~handid/Philosophy/studyguide/index.htm

Note: For Co-op opportunities related to the Major Program in Philosophy, please see the Co-operative Program in Humanities section of this Calendar.

SPECIAL PROGRAM IN PHILOSOPHY

Supervisor: P. Kremmer (416-287-7128) Email: kremmer@ustc.utoronto.ca

Program Requirements

Students must complete at least ten FCEs (full-credit equivalents) in Philosophy; at least 4 FCEs must be at the C- or D-level. MATCH01H can be used as a Philosophy course for these purposes. Students are encouraged, though not required, to complete at least 0.5 FCE as a reading course at the D-level.
PHL180H3: Research 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.

PHL111H3: Introduction to Ethics
Ethics is concerned with concrete questions about how we ought to treat one another as well as more general questions about how to justify our ethical beliefs. This course is an introduction that presents basic theories of ethics and considers their application to contemporary moral problems.

PHL203H3: Philosophy of Art
What is art? We will examine theories of the nature of art together with critiques of each of these theories. The course will then examine some issues specific to particular forms of art, such as literature, drama, film, dance and the visual arts.

PHL205H3: 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.

PHL206H3: 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 ideals have a role within business?

PHL207H3: Well-Being and Autonomy
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.

PHL208H3: Ethics and International Development
Ethics is concerned with right action — 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. Limited enrolment: 50

PHL209H3: 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: PHL281Y

PHL211H3: 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.

PHL215H3: Philosophy and Feminism
What is feminism? What is a woman? Or a man? Are gender relations natural or inevitable? Why do gender relations exist virtually everywhere? How do gender relations intersect with other social relations, such as economic class, culture, race, sexual orientation, etc.?

PHL216H3: 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.

PHL217H3: 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.

PHL241H: Political Philosophy: The Modern Period
This course will introduce some important thinkers in political philosophy from the 17th 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.

PHL220H3: 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.

PHL230H1: Existentialism
A study of the views and approaches pioneered by such writers as Kierkegaard, Husserl, Jaspers, Heidegger and Sartre. Existentialism has had influence beyond philosophy, impacting theology, literature and psychotherapy. Characteristic topics include the nature of the self and its relations to the world and society, self-deception, and freedom of choice.

PHL231H: 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.

PHL235H: Introduction to Early Modern Philosophy
This course covers the major figures and themes of seventeenth and eighteenth century philosophy. Descartes, Spinoza, Leibniz, Berkeley, and Hume will be covered. Metaphysical and epistemological themes will be emphasized.
PHILB3H3 Topics in the 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 some processes progress. Exclusions: (BIPC701H), (BIOC701H), (PHIB710H), (PSYS250H). Prerequisite: One or half credit course in Philosophy or in one of the Sciences.

PHILB8H3 Philosophy of Language

An examination of philosophical issues about language. Philosophical questions to be covered include: what is the relation between mind and language, what is involved in linguistic communication, is language an innate biological feature of human beings, how do words manage to refer to things, and what is meaning.

PHILB9H3 Theories of Mind

An examination of questions concerning the nature of mind. Philosophical questions considered may include: what is consciousness, what is the relation between the mind and the brain, how did mind evolve and do animals have minds, what is thinking, what are feelings and emotions, and can machines have minds.

PHILB34H3 Foundations of Cognitive Science

A study of the hypothesis 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. Exclusion: (COGB810Y)

PHILB91H3 Theories of Human Nature

An exploration of theories which provide answers to the question "What is a human being?", investigating catch-phrase definitions such as "Man is a rational animal," "Man is a political animal," &dquo;Man is inherently individual, &dquo; Man is inherently social, &dquo; etc. Authors studied include: Aristotle, Hobbes, Rousseau, Darwin, Marx and Freud. Exclusion: (PHILC91H)

PHILC20H3 Topics in the Philosophy of Art

An exploration of some current issues concerning the various forms of art: the role of the museum, the loss of beauty and the death of art. Prerequisite: 2.0 FCEs in PHIL or permission of the instructor.

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 classical philosophical texts by the major systematic thinkers in the Western tradition of ethics. Particular authors read may vary from instructor to instructor. Exclusions: (PHILB41H), (PHIL375H). Prerequisite: One course in Philosophy, preferably PHILA1H3 (though not required), or permission of the instructor.

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. Exclusion: (PHILC1H3), (PHIL375H). Prerequisite: One course in Philosophy, preferably PHILC50H3 (though not required), or permission of the instructor.

PHILC130H3 Topics in Philosophy and Feminism

What is gender? Gender issues have animated discussions among feminist philosophers and social scientists, as well as among the public at large. Current approaches vary greatly. However, since ideas about gender differences have historically been used to subordinate women, the approaches discussed all share a commitment to social critique. Prerequisite: This is a senior general interest course for philosophy students and others, with lectures, class discussion, and essays. Students should have completed at least 2.0 FCEs at the B- or C-level in any subject before beginning this course.

PHILC20H3 Topics in the Theory of Knowledge

A follow up to PHILB20H. This course will consider one or two epistemological topics in depth, with an emphasis on class discussion. Prerequisite: 1.0 FCE in Philosophy or Permission of the Instructor.

PHILC40H3 Topics in Buddhist Philosophy: Buddhist Ethics

Buddhism is a response to what is fundamentally an ethical problem: the perennial problem of the best kind of life for us to lead. Gotama was driven to seek the solution to this problem and the associated ethical issues it raises. This course discusses the aspects of ethics, values and psychology, samsara, ethics in Mahayana, Buddhist, utilitarianism, and Aristotelian. Prerequisite: PHILB40H or PHILB45H or permission of the instructor.

PHILC41H3 Topics in Chinese Philosophy: Confucianism

Through studying Confucian classics in translation and related readings, this course discusses theories of philosophers and their debate. Gender, attitudes toward the natural environment and modern concept in business ethics reflecting in Confucian texts will also be discussed.

PHILC51H3 Symbolic Logic II

A continuation of PHILB50H. The natural deduction system studied in PHILB50H is extended to cover identity and definite descriptions. Special attention is paid to the restriction of the identity calculus to 'extensional' terms and formulas. Alternative treatments of definite descriptions, one following Frege, the other Russell, are developed and compared. Exclusion: (JMP451H). Prerequisite: (JMP450H) or PHILB50H.

PHILC54H3 Metaphysics

Second year course deals with formal languages: you work inside formal proof systems, and also consider the "semantics", dealing with truth, of formal languages. Instead of working inside formal systems, Metaphysics treats systems themselves as objects of study, from the outside. Prerequisite: PHILB50H or a strong mathematical background, as determined by the instructor; or permission of the instructor.
PHLC59H3 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 mathematics truth? Such questions should concern mathematicians, students interested in the foundations of mathematics, and philosophy students, as a rich source of philosophical puzzlement.
Exclusion: PHI340H
Prerequisite: Two 200-level or higher courses in mathematics or philosophy

PHL3C9H3 Topics in Contemporary Political Philosophy
An examination of some central philosophical problems of contemporary political philosophy.
Prerequisite: Two 200-level half-credit courses in Philosophy.

PHL3C9H3 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: Two 200-level half-credit courses in Philosophy or permission of the instructor.

PHL3C9H3 Topics in the Philosophy of Mind
Advanced topics in the Philosophy of Mind, for example 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 FCEs in PHI, including PHI391H or permission of the instructor.

PHLD9H3 Independent Study
These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

Physical Sciences Scarborough
B.Sc.
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
- Liberal Sciences (offered jointly with the Department of Computer and Mathematical Sciences)
- Physical and Mathematical Sciences
- Physics and Its Applications
  1. Physics Teaching Concentration
  2. Astronomy and Physics Concentration
  3. Physics Concentration

The following Major Programs are offered by the Department of Physical and Environmental Sciences:
- Astrophysics and Physics
- Biochemistry
- Chemistry
- Environmental Science
- Physical Sciences

The Department also offers a Minor Program in Environmental Science.

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.

EARLY TEACHER PROJECT
Coordinator: C.C. Dyer (416-287-7306) Email: dyerc@utsc.utoronto.ca

The Early Teacher Project (ETP) in Physical Sciences is dedicated to producing future high school and elementary school teachers of Science and Mathematics. The Department of Physical and Environmental Sciences and the Department of Computer and Mathematical Sciences at UTSC and OISE/UT co-operate in supporting this program.

Participation in the ETP requires that the student be registered in one Specialist or two Major Programs offered in those Departments, and to take part fully in all the mandated activities of the ETP, as described below. The ETP Supervisor will approve the program for each student and will ensure that, as far as possible, the combination of courses leads the student to the Honours Specialist Ontario Teacher Certification in one or more subjects. The ETP is structured in three consecutive phases, Phase I, completed in the first two years of the B.Sc. degree, Phase II, completed in the final two years of the B.Sc. degree, followed by Phase III the B.Ed. program done at OISE/UT.

Admission to Phase I can be by Direct Admission from high school. When applying, use the special code for this UTSC program on the Application for Admissions to an Ontario University.
Once the University of Toronto is notified of the application, candidates are sent information on how to download the supplementary application from our website.

Direct admission is limited and will be based on the overall high school average presented for admission to the University and grades in science subjects, including, specifically, Chemistry, Physics and Calculus, and other criteria, such as extracurricular activities and work experience, letters of reference, and a statement of interest from the student, indicating the area(s) of Physical Science in which he/she might specialize and describing his/her ambitions to become a science teacher.

Students may also apply for admission at the end of their first year provided that they have achieved a GPA of at least 2.5 in at least 4.0 FCEs (full credit equivalents) and have completed all the courses required in the 1st year of their chosen Program(s). They must successfully register, with the approval of the ETP Supervisor, in a Specialist Program or two Major Programs offered in the two Departments. They must also provide a statement of interest, information on other activities, such as extracurricular activities and work experience, and, where required, provide letters of reference and attend personal interviews.

In the first year, an introductory seminar will introduce the whole program for the four years. There will be advice on the choice of Programs, with clear explanation of additional requirements imposed by the Early Teacher Project. In the second year there will be two seminars that provide a general introduction to teaching and to special programs like "Scientists in Schools" in which the ETP students can be involved.

At the end of the second year, students will attend the ETP Workshop in a school. Admission to Phase II will require that the ETP student has completed 16.0 FCEs and have a GPA of 2.5 on these courses. It will also require that the student has completed all regular ETP activities, and all required courses for the first two years of their chosen specialist or pair of major programs.

The student will be interviewed by the ETP Co-coordinator and a representative of OISE/UT to ensure that the student is making appropriate progress and is suitable for a career in teaching.

To complete Phase II, the ETP student must participate in the mandated ETP activities, including two practicum placements in schools, usually in May of third and fourth year, each comprising at least 22 days in the classroom. With approval of the Co-coordinator, alternate practicum placements will be considered, with a prime example being the "Scientists in Schools" program.

The student must complete one of [PSCD01H or PHY341H] and one of [PSCD03H or PHY342H]. This requirement is part of the agreement between UTSC and OISE/UT, and cannot be waived. Even where these courses are not specific requirements of the chosen academic program(s), ETP students must complete these two courses. It is the responsibility of the ETP student to ensure that these two requirements are met, regardless of their specialist program course requirements. In many cases, they will have to be among the chosen elective courses.

ETP students must attend four special ETP seminars in each of their third and fourth years, for a total of eight such seminars. The first practicum placement will normally take place in May of the third year of study, with the second placement taking place in fourth year.

Admission to Phase III, the final phase in obtaining the B.Ed. degree, and the Ontario Teacher Certification, requires the student to be admitted to OISE/UT. Admission to OISE/UT requires a GPA of at least 2.5 on the best 15.0 FCE of the B.Sc. degree, in addition to the submission of a practicum portfolio. At the completion of their B.Sc. degree, admission to OISE/UT is guaranteed provided that the ETP student has obtained a GPA of at least 2.5 on the best 15.0 FCE courses of the B.Sc. degree.

CO-OPERATIVE PROGRAM IN PHYSICAL SCIENCES

Co-op Contact: R. Loudon (416-287-7254) Email: rala@ustoronto.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, 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.

Computer Science students will apply to and be registered in the separate Specialist and Co-op Programs in Computer Science. The Computer Science Specialist Program may not be included in the Physical Sciences Co-op.

Admission to the Program

For 2005/2006, a limited number of students may apply for admission to 2nd Year of the Program. They must:

- Be enrolled at UTSC in 1st year in 2004/2005
- Achieve a GPA of at least 3.0 from at least 5.0 FCEs (full credit equivalents)
- Complete by May 2005 all the prerequisite courses required for their chosen Program(s)
- Agree to participate in the Arts & Science Co-op Work Term Preparation course before going on work terms.

Further information on how to apply is on the Physical Sciences web site and may be obtained from the Co-op Office. For further information on fees, work terms and standing in the Program, please see the Co-operative Programs 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
- Liberal Sciences
- Mathematics
- Mathematics and Its Applications (with streams of Statistics, Computational Physical Sciences and Mathematics Teaching)
- Physical and Mathematical Sciences
- Physics and Its Applications (with concentrations in Astronomy and Physics, Physics and Physics Teaching)

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:

- Astrophysics and Physics
- Biochemistry
- Chemistry
- Environmental Science (with streams of Environmental Geosciences, Environmental Biology, and Water Sciences)
- Mathematics
- Physical Sciences
- Statistics
2. 3.0 FCE from:
   First year Astronomy:
   AST401H & AST402H
   First year Calculus:
   MATA30H & [MATA35H or MATA36H or MATA37H]
   First year Physics:
   PHYA30H & PHYA31H
   Computational courses:
   PSCB57H or CSCA80H
   Second year Statistics:
   STAB22H or STAB22H
   1.0 FCE at B-level in each of THREE of the discipline groups:
   Physics and Astronomy
   Chemistry
   Biology
   Mathematics and Statistics (not to include STAB22H or STAB22H)
   Environmental Science
   4.0 PSCD21H and PSCD20H
   5.0 FCE in Humanities
   6. Complete the remainder of the required courses for one major program in one of the
discipline groups.

SPECIALIST PROGRAM IN PHYSICAL AND MATHEMATICAL SCIENCES
Supervisor: M.J.O. Lee (416-287-7246) Email: lee@utoronto.ca
This Program provides a framework of courses in the Physical Sciences based upon a firm
Mathematical foundation; relating Astronomy, Chemistry, Computer Science, Physics and
Statistics. It prepares students for careers in teaching, industry, and government as well as for
further studies at the graduate level.

Program Requirements
First Year:
AST401H Introduction to Astronomy and Astrophysics I: The Sun and Planets
AST402H Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
CIMA10H Introduction to Chemistry I: Structure and Bonding
CIMA11H Introduction to Chemistry II: Reactions and Mechanisms
MAT22H Linear Algebra I
MAT30H Calculus I
[MAT35H Calculus II for Physical Sciences
or
MAT37H] Calculus II for Mathematical Sciences
PHYA30H Introduction to Physics I
PHYA31H Introduction to Physics II

Second Year:
MAT25H Linear Algebra II
MATB4H Techniques of the Calculus of Several Variables I
PHYB10H Intermediate Physics Laboratory I
PHYB21H Electricity and Magnetism
PSCB57H Introduction to Scientific Computing

Second or Third Year:
STAB22H Solar System and Stellar Astrophysics
CHMB20H Chemical Thermodynamics and Elementary Kinetics
CHMB21H Chemical Structure and Spectroscopy
ASTC22H1 Galactic and Extragalactic Astrophysics
CHM1101H1 Chemical Thermodynamics and Elementary Kinetics
CHM1211H1 Chemical Structure and Spectroscopy
MAT238H1 Linear Algebra I
MAT248H1 Linear Algebra II
MAT44H1 Techniques of the Calculus of Several Variables I
MATB41H1 Techniques of the Calculus of Several Variables II
PHYB1H1 Intermediate Physics Laboratory I
PHYB111H1 Intermediate Physics Laboratory II
PHYB210H1 Vibrations & Waves
PHYB211H1 Electricity and Magnetism
PSCB01H1 Instrumentation of Science
PSCC1212H1 Physical Principles of Modern Technology
STAB22H1 Statistics I

PSCB01H1 The Instrumentation of Science
This is a study of the computer control of various digital instruments used in the sciences. The course will provide a background in the principles of basic electricity and digital circuits sufficient to understand the working and limitations of modern electronic instruments. It will provide hands on experience, including simple programming, using the sensors of modern science, the associated instruments, and the transfer of data to a controlling computer. Activities will be selected from as large a range of subject areas as possible in: Physics, Chemistry, Environmental and Life Sciences.
Prerequisite: PHYA101H or (PHYA201H)

PSCB203H1 Chaos and Fractals
A general interest course providing an overview of topics in the science of nonlinear systems with applications to natural systems such as the dripping tap, weather prediction, hydrodynamics, psychology, heartbeats, behavior, economy, the stock market, and rare chemical reactions. Fractal dimensions, mathematical fractals, cellular automata, complexity. Prerequisite: [MAT303H] or [MATA38H1] & elementary knowledge of a programming language such as C, FORTRAN, Basic or Turing.

PSCB518H3 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.)
Exclusion: (CSCA271H1)
Corequisite: [MATA38H1] or [MATA235H] or [MATA231H] with permission of the instructor & one A-level science course

PSCC013H3 Physical Principles of Modern Technology
The principles of modern technology are rooted in the physical sciences. The electrical properties of semi-conducting materials are the foundation of the burgeoning fields of microelectronics and digital computing. The modulation, transmission, and detection of electromagnetic waves are at the heart of the contemporary revolution in communications technology. The principles of thermodynamics set invariable constraints on the generation and inter-conversion of energy in its various forms. The goals of this course are to present the physical principles underlying digital communications and energy technology, and to examine critically the applications of these technologies in modern society.
Prerequisite: PHYB211H, MATB41H, MATB42H
Physics is the study of the basic laws that govern how material objects move and influence each other. 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 the theory of 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, and nuclear matter 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 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 of the subject.

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, therefore, involves both mathematics and the techniques of experimentation. At the University of Toronto at Scarborough, students who are interested in Physics can take the Specialist Program in Physical and Mathematical Sciences, the Specialist Program in Physics and its Applications, the Specialist Program in Computer Science and Physical Sciences (Computer Science and Physics stream), or the Major Program in Physical Sciences. Note that the last two years of the Specialist Program in Physics and its Applications are taught on the St. George campus. Also, there are a number of other Specialist programs associated with the Department of Physics. These include Specialist in Biophysics, Chemical Physics, Computer Science and Physics, Geology and Physics, Earth Systems Physics & Environment and Planetary Science. Students interested in any of these options should consult with the Program Supervisor, Professor Martin Lee within the first week of classes.

NOTE: MAT37H is the preferred co-requisite for PHY42H, although MAT39H or MAT43H is an acceptable alternative. However, only MAT37H will serve as a prerequisite for higher-level MAT courses. Therefore, students contemplating a Program that contains MAT courses beyond the A-level must take MAT37H.

Please refer to the prranteable in the Physical Sciences Scarborough section of this Calendar for a list of the Programs offered.

SPECIALIST PROGRAM IN PHYSICS AND ITS APPLICATIONS
Program Requirements
Note: Courses which have a number as the fourth character (e.g. PHY305H) are offered on the St. George Campus. Please refer to "Early Teacher Project" in the Physical Sciences Scarborough section of this Calendar for details on this route for admission to OSEU/UT, University of Toronto.

Note: Students in this program are exempt from the normal limit of 5.0 FCEs (full-credit equivalents) on other campuses; they may take a maximum of 10.0 FCEs on other campuses in order to complete the requirements of the program.

First Year - 3.5 FCE
AST101H Introduction to Astronomy and Astrophysics I: The Sun and Planets
AST102H Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
PHY101H Introduction to Physics I
PHYA23H Introduction to Physics II
MATA33H Linear Algebra I
MATA35H Calculus I
[MATA36H Calculus II for Physical Sciences or
MATA37H] Calculus II for Mathematical Sciences

Second Year - 4.0 FCE
ASTB21H Solar Systems and Stellar Astrophysics
PHYB10H Intermediate Physics Laboratory I
PHYB11H Intermediate Physics Laboratory II
PHYB12H Electricity and Magnetism
PHYB24H Introduction to Quantum Physics
MATH41H Techniques of the Calculus of Several Variables I
MATH42H Techniques of the Calculus of Several Variables II
PSCH57H Introduction to Scientific Computing

Third & Fourth Years - 6.5 FCE
Teaching Concentration
ASTC32H Galactic and Extragalactic Astrophysics
PHYB20H Vibrations and Waves
PHYB21H Thermal Physics
[MATH44H] Differential Equations I or
MATH244H] Ordinary Differential Equations

Two of:
AST210H History and Nature of Astronomical Discovery
AST214H Life on Other Worlds
AST320H Introduction to Astrophysics
AST325H Practical Astronomy

Four of:
PHY305H Electronics Lab I
PHY306H Introduction to Computational Physics
PHY315H Radiations on Planetary Atmospheres
PHY326H Modern Physics Laboratory
PHY346H Intermediate Biophysics
PHY351H Classical Mechanics
PHY352H Electromagnetic Theory
PHY355H Quantum Mechanics I

An additional 1.0 FCE from:
ENVE315 Physics and Chemistry of Planet Earth
JPA30H Introduction to Archaeology
JPA30H Physics and Archaeology

An additional 0.5 FCE from AST or PHY D- or 400-level courses, including the following:
[PSCD00H The Physical Sciences in Contemporary Society or
PHY334H] The Physical Sciences in Contemporary Society
[PSCD00H Current Questions in Mathematics and Science or
PHY334H] Current Questions in Mathematics and Science

Astronomy and Physics Concentration
ASTC22H Galactic and Extragalactic Astrophysics
PHYB20H Vibrations and Waves
PHYB21H Thermal Physics
[MATH44H] Differential Equations I or
MATH244H] Ordinary Differential Equations
[MATH46H] Differential Equations II or
APM346H] Differential Equations

Three of:
AST320H Introduction to Astrophysics
AST325H Practical Astronomy
AST420H Topic in Astrophysics
AST425H Research Topic in Astronomy

Four of:
PHYB32H Modern Physics Laboratory
PHY331H Classical Mechanics
PHY352H Electromagnetic Theory
PHY355H Quantum Mechanics I
PHY357H Nuclear and Particle Physics
PHY358H Atoms, Molecules and Solids

An additional 0.5 FCE from AST or PHY D- or 400-level courses, including the following:
[PSCD00H The Physical Sciences in Contemporary Society or
PHY334H] The Physical Sciences in Contemporary Society
[PSCD00H Current Questions in Mathematics and Science or
PHY334H] Current Questions in Mathematics and Science

Physics Concentration
ASTC22H Galactic and Extragalactic Astrophysics
PHYB20H Vibrations and Waves
PHYB21H Thermal Physics
[MATH44H] Differential Equations I or
MATH244H] Ordinary Differential Equations

Four of:
PHYB32H Modern Physics Laboratory
PHY331H Classical Mechanics
PHY352H Electromagnetic Theory
PHY355H Quantum Mechanics I

An additional 0.5 FCE from AST or PHY D- or 400-level courses, including the following:
[PSCD00H The Physical Sciences in Contemporary Society or
PHY334H] The Physical Sciences in Contemporary Society
[PSCD00H Current Questions in Mathematics and Science or
PHY334H] Current Questions in Mathematics and Science
SPECIALIST PROGRAM IN ENVIRONMENTAL PHYSICS
(See the Environmental Sciences section of this Calendar)

SPECIALIST PROGRAM IN LIBERAL SCIENCES
(See the Physical Sciences Scarborough section of this Calendar)

PHYS4D1H3 Basic Physics
The course will be offered at a level at or slightly above the level of OAC or new Grade 12 Physics. Topics include the concepts of motion, energy, kinematics, vectors and coordinate systems, force and Newton’s laws of motion and dynamics in one and two dimensions. It is intended to be the preparation required to allow those students who did not take OAC Physics or new Grade 12 Physics to proceed easily to PHYS1A0H. It cannot be counted toward the first-year physics requirements of any science or mathematics program at UTSC. If this course is to be taken, it must be taken before entry to PHYS1A0H. It is also suitable for students in other areas who desire a general interest course in basic physics.
Exclusion: Physics 12U-3PH4U (Grade 12 Physics), OAC Physics, PHYS110Y
Prerequisite: Advanced Functions and Introduction Calculus (MCB4U)
Corequisite: MAT3A0H

PHYS1A0H3 Introduction to Physics I
The main themes are energy and energy conservation and the topics covered will be taken from the following: energy in macroscopic systems including concepts of energy, fluid mechanics, laws of thermodynamics; energy in classical waves including oscillatory motion; electromagnetic energy dealing with electric and magnetic fields, DC circuits. Exclusion: (PHYS2A0H, PHYSA31H), PHYSA61Y, PHYS110Y, PHYS130, PHYS138, (PHYS150)
Prerequisite: Physics 12U-3PH4U (Grade 12 Physics) & Advanced Functions and Introduction Calculus (MCB4U) or PHYSA61Y
Corequisite: MAT3A0H

PHYS2A1H3 Introduction to Physics II
The main theme is unification and the topics covered will be taken from the following: electromagnetic theory including geometric optics and wave optics; theory of relativity; matter and energy as modern quantum physics. Exclusion: (PHYSA01Y), (PHYSA11H), (PHYSA31H), PHYS110Y, (PHYS130Y), PHYS138Y, (PHYS150)
Prerequisite: PHYSA10H or (PHYS2A0H)
Corequisite: MAT3A5H or MAT3A6H or MAT3A7HH or MAT3A8H. (MAT3A5H does not allow for many future programs in science.)

PHYS1B0H3 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.
Limited enrolment: 25
Exclusion: (PHYS2B3H)
Prerequisite: PHYSA11H

PHYS1B1H3 Intermediate Physics Laboratory II
The main objective of this course is to help students develop skills in experimental physics by introducing them to a range of important measuring techniques and associated physical phenomena. Students will carry on several experiments in Physics and Astrophysics including electricity and magnetism, optics, solid state physics, atomic and nuclear physics.
Limited enrolment: 20
Exclusion: (PHYS2B3H)
Prerequisite: PHYSB10H
Corequisite: PHYSB21H

PHYS2B0H3 Vibrations and Waves
Topics will be taken from the following: harmonic motion, damped, driven and coupled oscillators; standing and traveling waves; interference and diffraction; normal modes; reflection and transmission of waves. Exclusion: (PHYS2C0H)
Prerequisite: PHYSA21H & [MAT3A4H or MAT3A7H]
Corequisite: MATB4A1H & MATB4A4H
Failures of classical physics; Planck radiation formula; photoelectric effect; particle nature of waves; Compton scattering; wave nature of particles; atomic spectra; atomic energy levels; Schrödinger equation; solutions for one-dimensional systems (infinite well, square well, harmonic oscillator); time dependence; uncertainty principle; packets; scattering and tunneling in one-dimension.

Exclusions: PHY241H, PHY251H
Prerequisite: PHYA21H or (PHYA01Y or PHYA31H) & MATB41H
Corequisite: MATB42H

**PHYB243H Introduction to Quantum Physics**

Fundamentals of Quantum Mechanics applied to Physical problems.

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**Political Science**

(B.A.)

Faculty List

E.G. Andrew, B.A. (British Columbia), Ph.D. (London), Professor Emeritus
S.J. Colman, M.A. (Oxon.), Professor Emeritus
D. Farnell, B.A. (New Brunswick, M.A. (Oxon.), Ph.D. (Harvard), Professor Emeritus
D. Yoon, B.A. (McGill), M.Sc., Ph.D. (LSE), Professor

A. Rubenstein, A.B. (Alltaghany), M.A., Ph.D. (Chicago), Professor

G.S. Skoogstad, B.A., M.A. (Alberta), Ph.D. (British Columbia), Professor

S. Solomon, B.A. (McGill), M.A., Ph.D. (Columbia), Professor

J. Teichman, B.A., M.A., Ph.D. (Toronto), Professor

P. Kington, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor

C. Norstel, B.A., M.A. (Lund), Ph.D. (Geneva), Assistant Professor

Discipline Representative/Supervisor of Studies: G. Skoogstad

Email: political-science-supervisor-studies@utoronto.ca

Contemporary states and societies are beset by political crisis and change. International relations have become unstable and unpredictable as the Cold War has ended 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 eroded 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 expelling 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 in ancient and modern states and societies. 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 will learn about the institutional foundations of the Canadian political process. The specific topics dealt with include national unity, elections and political parties, environmental and social policy, and the impact of the global economy on national sovereignty. 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 classical expositions of politics from ancient Greek philosophers to post-modern social theorists.

**SPECIALIST PROGRAM IN POLITICAL SCIENCE**

Supervisor of Studies: G. Skoogstad

Email: political-science-supervisor-studies@utoronto.ca

Program Requirements

Students must complete at least ten full credits in Political Science including:

1. One full credit from among the A-level political science courses (not more than one full credit at the A-level can be counted towards Program requirements).
2. POLB700H1S Classic Texts in Political Theory I
3. POLB710H1S Classic Texts in Political Theory II
4. Two of the following:
   - POLA51H1S Critical Issues of Canadian Democracy
   - POLB50H1S Canada's Political Institutions
   - POLB52H1S Canadian Politics: Connecting Citizens and Governments
5. At least four of the following:
   - [POLB50H1S Canada's Political Institutions or POLB52H1S Canadian Politics: Connecting Citizens and Governments]*
   - POLB580H1S Introduction to International Relations
   - POLB581H1S International Conflict and Conflict Management
   - POLB590H1S Comparative Development in International Perspective
   - POLB591H1S Comparative Development in Political Perspective
   - POLB592H1S Comparative Politics
   - POLB91H1S Comparative Politics of Democratic Government

4. Four full credits in political science at the C- and/or D-level

*For those students taking all three half credits listed in requirement 5, one of the B-level half credits in Canadian politics can count towards the #4 requirement.

**MAJOR PROGRAM IN POLITICAL SCIENCE**

Supervisor of Studies: G. Skoogstad

Email: political-science-supervisor-studies@utoronto.ca

Program Requirements

Students must complete at least seven full credits in Political Science.

1. One full credit from among the A-level political science offerings (not more than one full credit at the A-level can be counted towards Program requirements).
2. POLB700H1S Classic Texts in Political Theory I
3. POLB710H1S Classic Texts in Political Theory II
4. Two of the following:
   - POLA51H1S Critical Issues of Canadian Democracy
   - POLB50H1S Canada's Political Institutions
   - POLB52H1S Canadian Politics: Connecting Citizens and Governments
4. At least four of the following:
   POLB52H1 Canadian Political Institutions
   or
   POLB52H1 Canadian Politics: Connecting Citizens and Governments*
   POLB50H1 Introduction to International Relations
   POLB35H1 International Conflict and Conflict Management
   POLB90H1 Comparative Development in International Perspective
   POLB91H1 Comparative Development in Political Perspective
   POLB92H1 Comparative Politics
   POLB93H1 Comparative Politics of Democratic Government

5. Two political science full credits at the C- and/or D-level

* For those students taking all three half credits listed in requirement #1, one of the II-level half credits in Canadian politics can count towards the #4 requirement.

MINOR PROGRAM IN POLITICAL SCIENCE
Supervisor of Studies: G. Skogstad
Email: political-science-supervisor-studies@utoronto.ca

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).

a) Canadian Government and Politics: POLB36H1, POLB32H1, POLC33H1, POLC34H1, POLC35H1, POLC37H1, POLC36H1, POLD50H1, POLD51H1

b) Political Theory: POLB70H1, POLB71H1, POLB72H1, POLB73H1, POLC73H1, POLC74H1, POLC75H1, POLC77H1, POLD71H1, POLD72H1, POLD78H1

c) International Relations: POLB90H1, POLB91H1, POLC22H1, POLC23H1, POLC24H1, POLC25H1, POLC28H1, POLC29H1, POLD80H1

d) Comparative Politics: POLB90H1, POLB91H1, POLB92H1, POLB93H1, POLC40H1, POLC41H1, POLC33H1, POLC35H1, POLC38H1, POLC39H1, POLC99H1, POLC99H1, POLD36H1, POLC37H1, POLC39H1, POLD51H1, POLD62H1, POLD64H1, POLD94H1

SPECIALIST PROGRAM IN POLITICAL SCIENCE AND ECONOMICS FOR MANAGEMENT STUDIES
(See the Economics for Management Studies section of this Calendar.)

MAJOR PROGRAM IN PUBLIC POLICY
Supervisor of Studies: G. Skogstad
Email: public-policy-supervisor-studies@utoronto.ca

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, 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 7.5 full credits from the following list:

1. 0.5 FCE in Computer Science: one of:
   CSCA22H1 The Why and How of Computing
   CSCA28H1 Introduction to Computer Programming
   CSCA48H1 Introduction to Computer Science

2. 0.5 FCE in Introduction to Sociology I
   SOCA1H1 Introduction to Sociology I
   SOCA1H1 Introduction to Sociology II

3. 0.5 FCE in Quantitative Data Analysis selected from the following list: ANTC35H1 Quantitative Methods in Anthropology
   GGRA3H1 Geographic Information Systems (GIS) and Empirical Reasoning
   MATH123H1 Quantitative Methods in Management
   PSYB05H1 Data Analysis in Psychology
   SOC606H1 Social Statistics
   STAB22H1 Statistics I

4. 0.5 FCE in Social Theory
   POLC78H1 Political Analysis I
   PSYB05H1 Data Analysis in Psychology
   SOC606H1 Social Statistics

5. 0.5 FCE from among the following:
   ECMC53H1 Public Decision-Making
   ECMC56H1 Economic Aspects of Public Policy
   GGRA3H1 Geographic Information Systems (GIS) and Empirical Reasoning
   HGRA60H1 Planning in Canada

6. 0.5 FCE in Canada's Political Institutions
   POLB52H1 Canadian Politics: Connecting Citizens and Governments

7. 0.5 FCE from among the following:
   ANTC35H1 Quantitative Methods in Anthropology
   ANTC5H1 Economic Aspects of Public Policy
   GGRA3H1 Geographic Information Systems (GIS) and Empirical Reasoning
   HGRA60H1 Planning in Canada
   POLC66H1 Public Policy-Making
   POLC77H1 Public Policy in Canada

9. 1.0 FCE at the C- or D-level from among the following list:
   ANTC22H1 Political Anthropology
   ANTC46H1 Law and Society
   ANTC6H1 Medical Anthropology: Illness and Healing in Cultural Perspective
   ANTC62H1 Medical Anthropology II: Biological and Demographic Perspectives
   ECMC31H1 Economics of the Public Sector: Taxation
   ECMC32H1 Economics of the Public Sector: Expenditures
   ECMC33H1 The Economics of Canadian Public Policy
   ECMC35H1 Labour Economics I
   ECMC35H1 Labour Economics II
   GGAC24H1 Urban Residential Geography
   GGRC37H1 Countryside Conservation
   GGRC31H1 Urban Political Geography
   GGRA1H1 Urban Transportation Policy Analysis
   GGRA2H1 Issues in Rural Development
   GGRA31H1 Development and Planning of Metropolitan Regions
   GGRA33H1 The Greater Toronto Area
   HGRA45H1 Immigration and Race Relations in Canadian History
   HGRA46H1 Selected Topics in Canadian Women's History
   MGTC42H1 Public Management
   PHLC1H1 Theories of Human Nature
POLCS2H Seminar in Philosophy: Cultural Criticism
POLCS3H Canadian Environmental Politics I
POLCS4H Intergovernmental Relations in Canada
POLCS5H Political Policies of Canadian Health Care Policy
POLCS7H Intergovernmental Relations and Public Policy
POLCS8H The New International Agenda
POLD3H Political Interests, Political Identity, and Public Policy
POLD7H Canadian Political Ideas I
POLD7H Canadian Political Ideas II
POLD7H Political Analysis II
POLD8H Exploring the New International Agenda
SOC20H Sociology of Gender and Work
SOC22H Comparative Ethnic and Race Relations
SOC22H Sociology of Urban Growth
SOC33H Environment and Society
VPAC15H Cultural Policy: National and International Perspectives

10. A D-level course in Public Policy. Any of POLD5H, POLD5H, POLD6H, or POLD6H.
* Because of limited space in SOC20H and SOC24H, students may be required to take these courses during the summer.

Students are encouraged to take ENGA10H (Introduction to Literary Study: 1890 to World War II), ENGA11H (Introduction to Literary Study: 1945 to Today), ENGB01H (Critical Writing about Poetry) and ENGB02H (Critical Writing about Narrative).

MAJOR (CO-OPERATIVE) PROGRAM IN PUBLIC POLICY

Supervisor of Studies: G. Sirospaid Email: public-policy-supervisor-studies@utsc.utoronto.ca
Co-op Contact: R. Louden Email: askcoop@utsc.utoronto.ca

The Co-operative Program in Public Policy is a work-study Program which combines academic studies in various disciplines with term work 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 pursue 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 admissions, fees, work terms and standing in the Program, please see the Co-operative Programs section of this Calendar.

Program Requirements

Work Placement
To be eligible for the first work term, students must have completed at least 10 FCEs, including 5 FCEs as a University of Toronto at Scarborough student including those specified below and have completed the Arts & Science Co-op Work Term Preparation course.

Course Requirements
See requirements for Major Program in Public Policy above.

Courses to be completed before the first work term:

Year 1
1. One of:
   - CSCA3H The Why and How of Computing
   - CSCA4H Introduction to Computer Programming
   - CSAC4H Introduction to Computer Science
2. SOC20H Introduction to Sociology
3. Prerequisite to Statistics course (if not STAT22H or SOCB04H)

Year 2
1. POLG1H Canadian Political Institutions
2. POLG2H Canadian Politics: Governing Citizens and Governments
3. One of:
   - ECMB3H Public Decision-Making
   - ECMB1H Economic Aspects of Public Policy
   - GGRB0H Planning in Canada
   - SOCB4H Quantitative Methods in Social Research
   - SOCB4H Qualitative Methods in Social Research
4. Statistics course

POLAS1H Critical Issues of Canadian Democracy
An introduction to the study of politics that starts with an overview of parliamentary government, federalism, Charter rights, party politics and mass media as both institutional context and democratic issues, then examines the impact of Canadian democracy that result from problems of global capitalism, national unity, social inequality and civic culture.

POLAT2H Politics in Literature
An introduction to politics arising from imaginative literature. Themes discussed will be retributive justice and the politics of technology. The tension between private revenge and public justice will be examined in Aeschylus’s Eumenides and Shakespeare’s Hamlet. The spiritual technology or inner technique of W. H. Auden’s Journey to the West will be contrasted with control over nature or external technology of Shelley’s Frankenstein.

POLA8H3 Cultures of Conflict: Politics, Society and War Since 1612
An examination of 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. Readings include (e.g.) War and Peace and The Guns of August; films include (e.g.) All Quiet on the Western Front and The Green Beret. Exclusion: POL18H

POLAS1H Leaving Home: Politics and Emigration
A study of the causes 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.

POLAS2H The Politics of the Internet
An examination of key political debates surrounding the Internet. The course addresses issues of privacy that arise as firms gather information about WWW browsers; the justification, if any, for restrictions on free speech on the Internet; for example, to prevent hate groups from spreading their message; the implications of file-sharing services for the music industry; and other questions.

POLAS3H Exploring Globalization
This course introduces students to a series of issues in global politics and their consequences for Canadian citizens, including the globalization economy.
POL852H3 Canadian Politics: Connecting Citizens and Governments
An examination of the participatory vehicles and processes through which Canadians citizens seek to render their government responsive and responsible. Political parties, the electoral system, interest groups, new social movements, Quebec nationalism and aboriginal self-determination are given attention. Exclusion: POL100Y, POL102Y, POL103Y, POL180H, POL181H
Prerequisite: Any 4.0 FCEs. POLA5I1H and/or POLB89H1 are highly recommended.

POL879H3 Comparative Development in International Perspective
This course examines the historical and current impact of the international order on the development prospects and politics of less developed countries. Topics include colonial conquest, multi-national investment, the debt crisis and globalization. The course focuses on the effects that these international factors have on domestic power structures, on the urban and rural poor, and on the environment. Exclusion: POLB91Y, POL261Y
Prerequisite: Any 4.0 FCEs

POL881H3 Comparative Development in International Perspective
This course examines the role of politics and the state in the process of development in less developed countries. Topics include the role of the military and bureaucracies, the relationship between the state and the economy, and the role of religion and ethnicity in politics. Exclusion: POLB91Y, POL261Y
Prerequisite: Any 4.0 FCEs

POL939H3 Comparative Politics of Democratic Government
This course undertakes comparative studies of the structure and processes of selected democratic governments in the developed and developing world. It explores various models of parliamentary and presidential government. The focus will be on group demands in a representative setting. Exclusion: POL879Y
Prerequisite: Any 4.0 FCEs

POL890H3 Current Topics in Politics
Topics will vary depending on the instructor. Exclusion: (POL269Y)
Prerequisite: One B-level full credit in Political Science

POL891H3 Current Topics in Politics
Topics will vary depending on the instructor. Exclusion: (POL269Y)
Prerequisite: One B-level full credit in Political Science

POL853H3 Canadian Environmental Politics
An examination of 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 environmentalism, economic and political interests, public opinion; and Canada's political-institutional framework. Combined lecture-seminar format. Exclusion: (POL269Y)
Prerequisite: POLA51H or POLB55H or (POL269Y) or permission of the instructor

POL854H3 Intergovernmental Relations in Canada
An examination of relations between provincial and federal governments in Canada, and how they have been shaped by the nature of Canada's society and economy, judicial review, constitutional amendment, and regionalisation and globalization. The legitimacy and performance of the federal system are appraised. Lecture-seminar format. Exclusion: (POL269Y, POL316Y)
Prerequisite: POLA51H or POLB55H or (POL269Y) or equivalent
POLS353H3 The Politics of Canadian Health Policy
An examination of 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 Canadian attachment to Medicare are discussed.
Prerequisites: Any 3.0 FCEs (POLS588H1 or POLS52H1) or (POLS590Y) are highly recommended.

POLS473H3 Intergovernmental Relations and Public Policy
An examination of intergovernmental relations in various areas of public policy and their effects on policy outcomes. The course evaluates how federalism affects the capacity of Canadiens to secure desirable social, economic, environmental and trade policies. Lecture-seminar format.
Exclusions: (POLS475Y), POLS410Y
Prerequisites: (POLS588H1 or (POLS590Y) or equivalent) & POLS45H1

POLS686H1 Public Policy Making
A study of current theories of public policy-making and the processes that are involved in making public policies. Policy processes of agenda setting, choosing governing instruments, making public decisions, and implementing and evaluating governmental programs are examined using specific cases of public policy-making in Canada.
Exclusions: (POLS680Y), (POLS685Y)
Prerequisites: POLS31H1 or POLS38H1 or (POLS500Y) or (POLS52H1)

POLC873H3 Public Policy in Canada
A survey of contemporary patterns of public policy in Canada. Selected policy studies including managing the economy following war mobilization policies to the rise of global capitalism, effects of budget cuts on the Canadian welfare state and approaches to external relations and national security in the new international order.
Exclusions: (POLS680Y), (POLS685Y)
Prerequisites: POLS51H1 or POLS58H1 or (POLS586Y) or POLS52H1

POLS730H3 Modern Political Theory I
A study of the major political philosophers of the nineteenth century, including Hegel, Marx, J.S. Mill and Nietzsche.
Exclusions: POLS747Y, POLS720Y
Prerequisite: POLS700H1 or (POLS71H1) or (POLS707Y) or equivalent.

POLS743H3 Modern Political Theory II
A study of the major political philosophers of the twentieth century. The theories covered will vary from year to year.
Exclusions: POLS747Y, POLS720Y
Prerequisite: POLS730H

POLS778H3 Women in Political and Social Thought I
An exploration of male theorists' views of the role of women in state, society, and family and current feminist rethinking of the roles assigned them. The focus of the course will be on current feminist reinterpretations of classical texts.
Exclusions: POLS760Y, IPP343Y
Prerequisite: Any 4.0 FCEs

POLS779H3 Women in Political and Social Thought II
This course examines twentieth century female thinkers, feminists and non-feminists.
Exclusions: (POLS757Y), IPP343Y
Prerequisite: POLS780H

POLS783H3 Political Analysis I
An examination of the methods of analysis used in the literature on politics. The course will teach 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.
Exclusions: (POLS757Y)
Prerequisite: One full credit in Political Science

POLS785H3 The Formulation of American Foreign Policy
An examination of the process by which American foreign policy is formulated.
Exclusions: POLS720Y, (POL782Y)
Prerequisite: One full credit from: POLS586H, POLS587Y, POLS590H1, (POLS577Y), POLS52H1, POLS53H

POLS539H3 The Application of American Foreign Policy
An examination of the foreign policy of the United States by analyzing its context and application to a number of specific regions and problems in the world.
Exclusions: POLS526Y, (POL527Y)
Prerequisite: One full credit from: POLS580H1, (POL587Y), POLS581H, (POL577Y), POLS52H1, POLS53H

POLS543H3 Canadian Foreign Policy I
An introduction to Canadian foreign policy since 1945.
Exclusions: POLS512Y, (POL514Y)
Prerequisites: POL580H1, & (POL582H1) & (POL580H1 or POL580Y)

POLS553H3 Canadian Foreign Policy II
A consideration of the issues and influences which have determined Canadian foreign policy.
Exclusions: POLS512Y, (POL514Y)
Prerequisite: POLS549H

An examination of 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, ethnic politics and dissent. Particular attention will be paid to attempts to reform communism before 1991.
Exclusions: POLS560Y, POL524Y
Prerequisite: One B-level full credit in Political Science

POLS588H3 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, globalisation of the world economy, and many others. This course will serve as an introduction to these issues - and how international relations theory is adapting in order to cover them.
Exclusions: POLS589Y
Prerequisites: (POLS580H1 or POLS581H) or (POL580Y) or equivalent

POLS589H3 Politics and Government in Post-Communist Russia
The course examines the attempt to create democracy and a market economy in post-communist Russia. Topics will include federalism and regional politics, organized crime, the decline of the welfare state, and Russia's place in the world.
Exclusions: (POLS580Y), POL524Y
Prerequisite: One B-level full credit in Political Science

POLS593H3 Development Studies: Political and Historical Perspectives
This course provides students with a more advanced examination of issues in development studies. The first section will examine some of the mainstream theoretical approaches in development studies and this will be followed by a critical examination of development practice in historical perspective. The course will be designed in seminar format.
Prerequisites: (POLS580H1 or POLS581H) or (POL581Y)

POLS593H3 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 governance.
Exclusions: (POLS589Y), (POL535Y)
Prerequisites: (POLS500H1 or POLS589H1) or (POL581Y) or equivalent

POLS592H3 The American Political Process
An analysis of the American federal system and the institutions and processes of government in the United States. Exclusions: POL520Y, (POL587Y), (POL537Y)
Prerequisite: One full credit in Political Science at the B-level

POLS592H3 Public Policies in the United States
This course focuses on selected policy issues in the United States. Exclusions: POL520Y, (POL587Y), (POL537Y)
Prerequisite: One full credit in Political Science at the B-level
POLC953H3 International Political Economy of Trade
Examines why countries trade and how international exchange 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: POLB081H & POLB082H or POLB083Y (or equivalent); familiarity with basic economic concepts is recommended.

POLC955H3 Politics and Society in the Middle East I
This course examines politics and society in the contemporary Middle East with a focus on understanding the region's resistance to economic and political liberalization. Topics covered will include the role of external actors in the creation and evolution of the Middle East state system, the nature of authoritarian methods of statecraft in both republics and monarchies, the developmental effects of oil revenues, and the prospects for both secular and Islamist social protest movements. Exclusion: POLC96Y Prerequisite: POLB090H & POLB091H or POLB091Y

POLC973H3 Politics and Society in the Middle East II
This course will cover contemporary issues in Middle East politics. Topics will include politics of co-operation and competition, the impact of economic and political liberalization, civil society, politics with respect to women, human rights and the environment, and the impact of globalization on the region. Exclusion: POLC96Y Prerequisite: POLB090H & POLB091H or POLB091Y

POLC983H3 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 ways in which globalization has affected popular organizing, including its impact on insurgent movements such as the Zapatistas. Exclusion: POLC96Y, POLC96Y Prerequisite: POLB090H & POLB091H or POLB091Y or equivalent

POLD050H3 Political Interests, Political Identity, and Public Policy
An examination of the relationships between organized interests, social movements, and the state in the formulation and implementation of public policy in Canada and selected other countries. The impact of the organization of the state on the structure, function, and influence of organized interests will be examined, as well as the effect of organized interests on the capacity of the state to make public policies. A special focus of concern is the rise of new social movements and their impact on traditional channels of organizing and representing political interests. Prerequisite: POLA51H or POLB501H & POLB522H or POLB502Y

POLD55H3 Topics in Canadian and Comparative Politics
A seminar course that explores selected issues of Canadian politics from a comparative perspective. The topics in this course vary depending on the instructor. Limited enrolment: 25 Prerequisite: POLB501H & POLB522H or POLB502Y

POLD562H3 Organized Interests and the State
An examination of the factors affecting and changing role of organized interests in the modern capitalist state. The central theme is that the organization and role of the state and interest groups is interdependent, each importantly affecting the other. Various theoretical frameworks, including liberal pluralism and corporatism, are evaluated for their facilitability of the emergence, effectiveness, and impact of interest groups, and reference is made to specific examples in industrial democracies to test the adequacy of these general frameworks. Prerequisite: POLB501H & POLB522H or POLB502Y or POLB503H & POLB031H or POLB032Y

POLD564H3 Comparative Public Policy
A seminar course that 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: One FCE at the B- or C-level in comparative or Canadian politics.

POLD737H3 Canadian Political Ideas I
An introduction of the ideas informing Canadian political movements and parties. Limited enrolment: 25 Exclusion: POLA47Y, POLD71Y Prerequisite: One full credit from: POLB501H, POLB522H, POLB502H, POLB71H or equivalent

POLD723H3 Canadian Political Ideas II
An in-depth examination of the ideas informing Canadian political movements and parties. Limited enrolment: 25 Exclusion: POLA47Y, POLD71Y Prerequisite: POLD71H

POLD781H3 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. Limited enrolment: 25 Prerequisite: POLC781H or POLC75Y

POLD83H3 Exploring the New International Agenda
This course will examine the same broad set of issues as the New Agenda (terrorism, non-proliferation, human security, women's issues, human rights and others) but in considerably greater depth. It will emphasize in-class participation, and student presentations. Limited enrolment: 25 Exclusion: POLC83Y Prerequisite: POLC83H

POLD84H3 Selected Topics on Developing Areas
Topics vary according to instructor. Prerequisite: A Social Sciences or Humanities course on the Third World or Development.

POLD955H3 Supervised Research
A research project under the supervision of a member of faculty who 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 POLD955H 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

POLD983H3 Supervised Reading
Advanced reading program 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. Exclusion: POL495Y Prerequisite: One B-level course in Political Science & permission of the instructor.
Students particularly interested in the relation of brain to behaviour should consider the Neuroscience Programs described earlier in this Calendar. Those particularly interested in the study of knowledge - language, communication and thought - may wish to consider the Cognitive Science and Psycholinguistics Programs described earlier.

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 PSYB/PHYSY C/PHYSY D be taken consecutively in the two terms of second year. Students should be aware that with the exception of PHYSY C/PHYSY D, and PHYSY C/PHYSY D, courses in the Faculty of Arts and Science correspond to B-, C- or D-level and all 400-series are 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 Supervisor can be very valuable in this regard.

Courses in Neuroscience

Students interested in including Neuroscience courses in their Psychology Program should consult the Neuroscience section for details.

First-Year Students in Psychology

PSYA001H & PSYA002H are recommended in first year for students intending to pursue a Specialist or Major Program in Psychology.

SPECIALIST PROGRAM IN PSYCHOLOGY

Superior of Studies: D. Bors
Email: bors@unc.utoronto.ca

Program Requirements

The Program requires completion of 12.5 full-credit equivalents, and fulfills the Program requirements for the 4-year B.Sc. degree in Psychology.

a) 10.5 full-credit equivalents in Psychology, as follows:

1. PSYA01H Introduction to Psychology: Part I
   and
   PSYA02H Introduction to Psychology: Part II
   (1 full-credit equivalent)
2. Statistical Methods (1 full-credit equivalent)
   a) PSYB07H Data Analysis in Psychology
   and
   b) PSYC20H Advanced Data Analysis in Psychology
3. Laboratory Methods (1 full-credit equivalent)
   a) PSYB01H Psychological Research Laboratory
   and
   b) one half-credit (0.5 full-credit equivalent) from among the following:
   PHYSY C/PHYSY D Health Psychology Laboratory
   PHYSY C/PHYSY D Developmental Psychology Laboratory
   PHYSY C/PHYSY D Psychometric Methods Laboratory
   PHYSY C/PHYSY D Learning Laboratory
   PHYSY C/PHYSY D Cognitive Psychology Laboratory
   PHYSY C/PHYSY D Neuroscience Laboratory
4. PSYC20H Scientific Communication in Psychology (0.5 full-credit equivalent)
5. History and Theoretical Psychology (0.5 full-credit equivalent)
   a) PSYC30H Theoretical Psychology
   or
   b) PSYC31H History of Psychology

Associate Chair: G. Cupchik

Psychology is the branch of science which seeks to understand behaviour and mind. Why organisms - human and nonhuman - 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 enquiry to address the question.

The areas of interest encompassed by the discipline of psychology include: How organisms perceive their environment; how they learn, adapt, and remember; how they change over their lifetimes; how they choose among alternate courses of action; how they respond to motivating forces; how they are affected by the presence of other organisms in social settings; how their behaviour relates to their physiological functions; and how individuals and species differ from one another.

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 includes courses from each of the main sub-areas within the discipline. The Program is intended both for students with a strong interest in the field and for those who wish to pursue graduate work in psychology after the first degree. Students considering graduate study should plan to include the PSYD00Y (thesis course) in their undergraduate Program.

The Specialist Co-operative Program in Psychology and its Applications offers three streams, one in Cognition and Behaviour, another in Public Opinion and Behaviour, and a third in Behavioural Disorders. Admission to the program, which involves practical work experience, is limited.

The Major Program in Psychology is designed to introduce students to the main areas within the discipline. The Minor Program 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.
6. Credits at the B-level and/or C-level (3 full-credit equivalents)
   Students are required to take one full-credit equivalent at the B-level and/or C-level from each of the three content groups listed below:
   a) Social, Developmental and Personality (listed in the 10-, 20-, and 30-series);
   b) Learning and Physiology (listed in the 40- and 60-series);
   c) Perception, Language, and Cognition (listed in the 50-series).
7. Credits at the D-level (1 full-credit equivalent)
   In selecting one full-credit equivalent at the D-level, students may not include more than 0.5 full-credit equivalents from any one of the content groups listed under 6a, 6b, or 6c. Certain D-level NRO courses may be used to fulfill this requirement in Group 6b with approval of the Supervisor of Studies.
   Specialties are encouraged to plan on enrolling in the PSYD80Y (thesis) course in their third or fourth year, particularly if they intend to pursue a career in Psychology or a related discipline.
   Note: A 300-level course in PSY offered at 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.
8. Additional credits in Psychology (2.5 full-credit equivalents)
   Students must choose 2.5 further full-credit equivalents from any of the remaining courses in psychology. In selecting the 2.5 full-credit equivalents, 1.0 full-credit equivalent must be at the C- or D-level.
   b) Other Disciplines (2 full-credit equivalents)
   Students must select at least two full-credit equivalents at the B-level or higher in a discipline or disciplines other than Psychology.

MAJOR PROGRAM IN PSYCHOLOGY
Supervisor of Studies: D. Bars
Email: bars@usc.utoronto.ca

Program Requirements
The Program requires completion of 6.0 full-credit equivalents in Psychology.
1. PSY A01H Introductory Psychology: Part I
   and
   PSY A02H Introductory Psychology: Part II
   (1 full-credit equivalent)
2. PSY B01H Psychological Research Laboratory
   (1.5 full-credit equivalent)
3. STA B22H Statistics I (recommended)
   or
   PSY B07H Data Analysis in Psychology
   or
   SO C B04H Social Statistics
   (1.5 full-credit equivalent)
4. Credits at the B-level and/or C-level (1.5 full-credit equivalents)
   Students are required to select one half-credit (0.5 full-credit equivalent) at the B-level and/or C-level from each of the three content groups listed below:
   a) Social, Developmental and Personality (listed in the 10-, 20-, or 30-series);
   b) Learning and Physiology (listed in the 40- and 60-series);
   c) Perception, Language, and Cognition (listed in the 50-series).
5. Credits at the D-level (1.5 full-credit equivalent)
   Students must choose one half-credit (0.5 full-credit equivalent) from the D-level offerings in Psychology. Certain D-level NRO courses may be used to fulfill this requirement with the approval of the Supervisor of Studies.
   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 full-credit equivalents)
   Students must choose 2 further full-credit equivalents from any of the remaining courses in Psychology. At least one full-credit equivalent from these must be at the C- or D-level.

MINOR PROGRAM IN PSYCHOLOGY
Supervisor of Studies: D. Bars
Email: bars@usc.utoronto.ca

Program Requirements
The Program requires completion of 4.0 full-credit equivalents in Psychology.
1. PSY A01H Introductory Psychology: Part I
   and
   PSY A02H Introductory Psychology: Part II
   (1 full-credit equivalent)
2. PSY B01H Psychological Research Laboratory
   (1.5 full-credit equivalent)
3. STA B22H Statistics I (recommended)
   or
   PSY B07H Data Analysis in Psychology
   or
   SO C B04H Social Statistics
   (1.5 full-credit equivalent)
4. Students are required to select one half-credit (0.5 full-credit equivalent) from each of two of the three content groups listed below (1.0 full-credit equivalent):
   a) Social, Developmental and Personality (listed in the 10-, 20-, or 30-series);
   b) Learning and Physiology (listed in the 40- and 60-series);
   c) Perception, Language, and Cognition (listed in the 50-series);
5. Additional credit in Psychology (1.0 full-credit equivalent at the C-level)

SPECIALIST (CO-OPTERATIVE) PROGRAM IN PSYCHOLOGY AND ITS APPLICATIONS
Supervisor of Studies: D. Bars
Email: bars@usc.utoronto.ca

The Program combines academic studies in the field of psychology with practical work experience in settings in which scientific knowledge from various sub-fields in the discipline is applied. Students will enroll in one of the three streams: Cognition and Behaviour, Public Opinion and Behaviour, or Behaviour Disorders.

The work experience provided by the program enables students to explore career opportunities that may be pursued following the bachelor's degree; however, completion of the program does not 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 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 the Co-operative Programs section of this Calendar.

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 full-credit equivalents, including PSY B01H, PSY B07H, PSY C02H and PSY C08H, and the
non-credit Arts & Science Co-op Work Term Preparation course. Certain other courses specific to each particular stream must also have been satisfactorily completed before the first work term is undertaken.

To be eligible for their second work term, students must have completed at least 12.5 full-credit equivalents, including certain courses specific to a particular stream, 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 full-credit equivalents as specified for the Specialist Program in Psychology, but with constraints on those courses that may be used to satisfy certain of these requirements, as given below for each of the three streams. Enrolment in each of the streams is limited.

Cognition and Behaviour Stream

This stream provides a theoretical and methodological foundation for the study of cognitive processes—perception, memory, language, thinking—and their bearing on behaviour. There are many applications of this area of psychology, such as: the design of machines, control panels, and complex systems in the home and the workplace; education, including special education for both children and adults; the development of devices and therapeutic learning approaches to assist persons with disabilities; artificial intelligence. Students may apply for work term employment in settings such as institutions and organizations providing support to persons with disabilities, educational organizations, research and development departments in industry, and government agencies.

10.5 full-credit equivalents in Psychology, as follows:

1. PSY46H1 Introductory Psychology: Part I
2. Statistical Methods (1 full-credit equivalent)
   a. PSYB07H1 Data Analysis in Psychology
   and
   b. PSYC08H1 Advanced Data Analysis in Psychology
3. Laboratory Methods (1 full-credit equivalent)
   a. PSYR01H1 Psychological Research Laboratory
   and
   b. one half-course (0.5 full-credit equivalent) from among the following:
      PSYC11H1 Social Psychology Laboratory
      PSYC26H1 Developmental Psychology Laboratory
      (PSYC44H1 Psychometric Methods Laboratory
      (PSYCS2H1 Cognitive Psychology Laboratory
      NRO63H1 Neuroscience Laboratory
4. PSYC26H1 Scientific Communication in Psychology (0.5 full-credit equivalent)
5. History and Theoretical Psychology (0.5 full-credit equivalent)
   a. FSTC82H1 Theoretical Psychology
   b. PSYC85H1 History of Psychology
6. Credits at the B-level and/or C-level (1 full-credit equivalents)

   Students are required to take one full-credit equivalent at the B-level and/or C-level from each of the three content groups listed below:

   a. Social, Developmental and Personality (listed in the 10-, 20-, and 30-series), students in Cognition and Behaviour stream must include PSYB08H1 Introduction to Developmental Psychology, among the courses selected to meet this requirement;

   b. Learning and Physiology (listed in the 40- and 60-series); students in the Cognition and Behaviour stream must include PSYB05H1, Brain and Behaviour, among the courses selected to meet this requirement;

   c. Perception, Language and Cognition (listed in the 50-series); students in the Cognition and Behaviour stream must take the following credits to complete this requirement:
      a. ([PSYB08H1 Sensation and Perception
      PSYB51H1 Perception and Cognition*
      PSYB57H1 Memory and Cognition*

7. Credits at the D-level (one full-credit equivalent), chosen from:
PSYD00H1 Current Topics in Memory and Cognition
PSYD02H1 Fundamental Issues in Cognitive Science
PSYD58H1 The Scientific Study of Consciousness and Unconscious Influences
PSYD59H1 Computational Models of Memory
PLID55H1 Disorders of Speech and Language

8. Additional credits in Psychology (2.5 full-credit equivalents):

   Students in the Cognition and Behaviour stream must include:
   a. PSYD09H1 Psychology and Its Applications: Advanced Seminar
   b. at least one full-course equivalent from among the following courses**:
      PSYB51H1 Perception and Cognition
      PSYC23H1 Neuropsychological Rehabilitation
      PSYC15H1 Psychology and the Law
      PSYC44H1 Cognition and Representation
      PLIC23H1 Developmental Psycholinguistics
      PLIC55H1 Psycholinguistics

The choice of the remaining one full-credit equivalent is unconstrained.

b) Other Disciplines (2.0 full-credit equivalents):

   Students must select at least two full-credit equivalents at the B-level or higher in a discipline or disciplines other than Psychology. Students in the Cognition and Behaviour stream must select at least two full-credit equivalents from among the following courses:

   LINC11H1 Language and Society
   LINC22H1 Sociolinguistics
   LINC25H1 Second Language Learning
   LNC26H1 Language and Gender
   PHIL40H1 Philosophy of Language
   PHIL41H1 Theories of Mind
   PHIL40H1 Foundations of Cognitive Science
   PHIL46H1 Issues in the Philosophy of Mind

   * These courses must be successfully completed before the first work term.
   ** This requirement must be successfully completed before the second work term.

Public Opinion and Behaviour Stream

This stream provides a theoretical and methodological foundation for the study of attitudes and of behaviour patterns, with an emphasis on understanding diversity. The stream is relevant to a multitude of issues such as: health related attitudes and behaviours; political and consumer attitudes and behaviour; attitudes about cross cultural issues, including the study of prejudice and discrimination; behaviour patterns and their diversity across cultures, including the study of social and sexual mores and of acculturation experiences. Students may apply for work term employment in survey research organizations and in government departments and other agencies interested in such issues.
10.5 full-credit equivalents in Psychology, as follows:

1. PSYA01H Introduction to Psychology: Part I
   and
   PSYA02H Introduction to Psychology: Part II
   (1 full-credit equivalent)
2. Statistical Methods (1 full-credit equivalent)
   a) PSYB07H Data Analysis in Psychology
   and
   b) PSYC08H Advanced Data Analysis in Psychology
3. Laboratory Methods (1 full-credit equivalent)
   a) PSYB01H Psychological Research Laboratory
   b) PSYC11H Social Psychology Laboratory
4. PSYC02H Scientific Communication in Psychology (1.5 full-credit equivalent)
5. History and Theoretical Psychology (1.5 full-credit equivalent)
   a) PSYC20H Theoretical Psychology
   or
   b) PSYC25H History of Psychology
6. Credits at the B-level and/or C-level (3 full-credit equivalents)
   Students are required to take one full-credit equivalent at the B-level and/or
   C-level from each of the three content groups listed below:
   a) Social, Developmental and Personality (listed in the 10-, 20-, and 30-series);
      students in the Public Opinion and Behaviour stream must take the following
courses to meet this requirement:
      PSYB10H Introduction to Social Psychology
      and
      PSYD20H Introduction to Developmental Psychology
   b) Learning and Physiology (listed in the 40- and 60-series)
   c) Perception, Language and Cognition (listed in the 50-series); students in the
      Public Opinion and Behaviour stream must include PSYB07H, Memory and
      Cognition, in the courses used to satisfy this requirement.
7. Credits at the D-level (one full-credit equivalent), chosen from:
   a) PSYD15H Current Topics in Social Psychology
   b) PSYD16H Psychology of Gender
   c) PSYD20H Socialization Processes
   PSYD44H Human Intelligence
8. Additional credits in Psychology (2.5 full-credit equivalents)
   Students in the Public Opinion and Behaviour stream must include:
   a) PSYD90H Psychology and Its Applications: Advanced Seminar
   b) PSYC12H Advanced Social Psychology
   and
   c) PSYC14H Cross-Cultural Social Psychology
   d) PSYC21H Advanced Developmental Psychology
   The choice of the remaining 1.5 full-credit equivalent is unrestricted.

Other Disciplines (2.5 full-credit equivalents)
Students must select at least two full-credit equivalents at the B-level or higher in a
discipline or discipline other than Psychology. Students in the Public Opinion and
Behaviour stream must choose at least two full-credit equivalents from among the
following:
   a) PSOLA5H Critical Issues of Canadian Democracy
   b) PSOLA8H Leaving Home: Politics and Emigration
   c) PSOL37H Political Analysis I
   d) PSOL37H Political Analysis II

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SOCB52H Immigration and Ethnicity in Canada
SOCB53H Ethnicity, Racialization and Identity Formation in Canada
SOCB56H Sociology of Mass Media and Communications: Institutions, Technologies and
Politics
SOCB57H Sociology of Mass Media and Communications: Texts and Audiences
*These credits must be successfully completed before the first work term.

Behavioural Disorders Stream
This stream provides a theoretical and methodological foundation for the study of behaviour
disorders and their treatment. Students will have the opportunity to apply for work term
employment in clinical settings such as may be found in hospitals and extended care facilities.

10.5 full-credit equivalents in Psychology, as follows:

1. PSYA01H Introduction to Psychology: Part I
   and
   PSYA02H Introduction to Psychology: Part II
   (1 full-credit equivalent)
2. Statistical Methods (1 full-credit equivalent)
   a) PSYB07H Data Analysis in Psychology
   and
   b) PSYC08H Advanced Data Analysis in Psychology
3. Laboratory Methods (1 full-credit equivalent)
   a) PSYB01H Psychological Research Laboratory
   b) PSYC32H Clinical Neuropsychology Laboratory
4. PSYC02H Scientific Communication in Psychology (1.5 full-credit equivalent)
5. History and Theoretical Psychology (1.5 full-credit equivalent)
   a) PSYC20H Theoretical Psychology
   b) PSYC25H History of Psychology
6. Credits at the B-level and/or C-level (3 full-credit equivalents)
   Students are required to take one full-credit equivalent at the B-level and/or
   C-level from each of the three content groups listed below:
   a) Social, Developmental and Personality (listed in the 10-, 20-, and 30-series);
      students in the Behavioural Disorders stream must take the following courses to
      meet this requirement:
      PSYB20H Introduction to Developmental Psychology
      and
      PSYB32H Introduction to Abnormal Psychology
   b) Learning and Physiology (listed in the 40- and 60-series); students in the
      Behavioural Disorders stream must take the following credits to meet this requirement:
      PSYB45H Behavioural Modification: Origins and Applications
      and
      PSYB65H Human Brain and Behaviour
   c) Perception, Language and Cognition (listed in the 50-series); students in the
      Behavioural Disorders stream must take the following credits to meet this requirement:
      (PSYB50H) Sensation and Perception
      or
      PSYB51H Perception and Cognition
      and
      PSYD20H Memory and Cognition

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PSYB09H3 Data Analysis in Psychology
This course focuses on the fundamentals of the theory and the application of statistical procedures used in research in the field of psychology. Topics will range from descriptive statistics to simple tests of significance, such as Chi-Square, t-tests, and one-way Analysis-of-Variance. A working knowledge of algebra is assumed. Students in the Specialist programs in Psychology, Cognitive Science, Psycholinguistics or Neuroscience will be given priority for this course. Exclusion: ANTC33H1, ECOMB07Y, ECOMB12H1, (MGTB101H), PSY200H1, SOC360H1, STA222H1, STA225H1, STA247H1, STA257H1

PSYB104H3 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. Exclusion: PSY220H1
Prerequisite: [PSYA01H1 & PSYA02H1] or (PSYA01Y)

PSYB202H3 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. Exclusion: PSY210H1
Prerequisite: [PSYA01H1 & PSYA02H1] or (PSYA01Y)

PSYB204H3 Personality
This course is intended to introduce students to the scientific study of the whole person in biological, social, and cultural contexts. The ideas of classical personality theories will be discussed in reference to findings from contemporary personality research. Exclusion: PSY230H1
Prerequisite: [PSYA01H1 & PSYA02H1] or (PSYA01Y)

PSYB265H3 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. Exclusion: PSY240H1
Prerequisite: [PSYA01H1 & PSYA02H1] or (PSYA01Y)

PSYB245H3 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; operant 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. Exclusion: PSY220H1
Prerequisite: [PSYA01H1 & PSYA02H1] or (PSYA01Y)

PSYB250H3 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: [PSYA01H1 & PSYA02H1] or (PSYA01Y)
PSYB1H3 Human Brain and Behaviour
The neurological basis of human behaviour: an introduction to human neuro-psychology. Hemispheric specialization, diseases of the central nervous system, behavioral consequences of damage to each of the cortical lobes, speech disorders, psychopharmacology and the biological basis of psychiatric disorders will be covered.
Prerequisite: [PSY A01H & PSY A02H] or [PSY A01Y]

PSYC2H3 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.
Limited enrolment: Limited to students in the Specialist Program in Psychology. Prerequisite: [PSY B01H & [PSY B07H or SOCIO 05H or STAT 228H] or PSY B08H]
Corequisite: PSY C08H

PSYC2H3 Advanced Data Analysis in Psychology
This course is a continuation of PSY B07H. The primary focus of this course is on the understanding of Analysis of Variance and its application to various research designs. Examples will include a priori and post hoc tests. Finally, there will be an introduction to multiple regression, including discussions of design issues and interpretation problems.
Exclusion: STAT 252H, PSY 220H
Prerequisite: [PSY B07H or SOCIO 05H or STAT 228H] and one additional B-level half-credit in psychology

PSYC31H3 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.
Limited enrolment: 25
Exclusion: PSY 329H
Prerequisite: PSY B03H & [PSY B07H or SOCIO 05H or STAT 228H] & PSY B08H

PSYC32H3 Advanced Social Psychology
A detailed examination of selected social psychological topics introduced in PSY B08H.
This course examines the nature of attitudes, their development, organization and change. Practical issues such as the measurement of attitudes in the laboratory and in public opinion surveys will be covered.
Exclusion: PSY 320H
Prerequisite: [PSY B07H or SOCIO 05H or STAT 228H] & PSY B08H plus one additional B-level half-credit in PSY

PSYC1H3 Cross-Cultural Social Psychology
A survey of the role of culture in social thought and behaviour.
The focus is on research and theory that illustrate ways in which culture influences behaviour and cognition about the self and others, emotion and motivation.
Differences in individualism and collectivism, independence and interdependence as well as other important orientations that differ between cultures will be discussed. Social identity and its impact on acculturation in the context of immigration will also be explored.
Exclusion: PSY 321H
Prerequisite: [PSY B07H or SOCIO 05H or STAT 228H] & PSY B08H plus one additional B-level half-credit in PSY

PSYC1H3 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, behaviourism, social constructionism, and phenomenology.
Exclusion: PSY 394H
Prerequisite: [PSY B07H or SOCIO 05H or STAT 228H] & PSY B08H

PSYC2H3 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. Teaching method: lectures, discussion.
Exclusion: PSY 313H
Prerequisite: [PSY B07H or SOCIO 05H or STAT 228H] & PSY B20H plus one additional B-level half-credit in PSY

PSYC2H3 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.
Limited enrolment: 24
Exclusion: PSY 313H
Prerequisite: PSY B01H & [PSY B09H or SOCIO 05H or STAT 228H] & PSY B20H

PSYC3H3 Clinical Neuropsychology
Clinical neuropsychology is an applied science concerned with the behavioral 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 Behavioural Disorders Co-op stream should enrol in PSY C2H, not in this course.
Limited enrolment: 75
Exclusion: PSY C32H
Prerequisite: PSY B01H & [PSY B09H or SOCIO 05H or STAT 228H] & PSY B20H & PSY B25H

PSYC3H3 Clinical Neuro-Psychology Laboratory
The applied science concerned with the behavioral expression of brain dysfunction for students in the Behavioural Disorders stream of the Co-op Program in Psychology and its Applications. Lecture and demonstration material will be as described for PSY C31H. Clinical Neuro-psychology, but students will also complete a laboratory component. The laboratory will allow 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.
Limited enrolment: Enrolment is limited to students in the Behavioural Disorders stream of the Co-op Program in Psychology and its Applications. Exclusion: PSY C31H
Prerequisite: PSY B01H & [PSY B09H or SOCIO 05H or STAT 228H] & PSY B20H & PSY B25H

PSYC3H3 Neuropsychological Rehabilitation
An examination of the therapeutic methods used to improve the capacity of a brain damaged individual to process and one incoming information, enhancing functioning in everyday life. Students will be introduced to methods that can 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 addressed. Lectures and demonstrations. Students in the Behaviour
Disorders stream of the Co-operative Program in Psychology and its Applications will have priority for entry to the course. Prerequisite: [PSYC11H or PSYC22H] & PSYB57H

PSYC394H Advanced Personality Psychology
This course is intended to introduce advanced undergraduates to the theories and methods of personality assessment. The theoretical, psychodynamic, interpersonal, multifactorial, and empirical approaches to personality assessment will be discussed.
Exclusion: PSY39H
Prerequisite: [PSYB07H or SOCB06H or STAB22H] & PSY130H plus one additional B-level half-credit in PSY

PSYC536H Psychology and the Law
The course will focus on the application of psychology to the law, particularly the perceptual and memorial processes which influence the giving of testimony.
Exclusion: PSY353H
Prerequisite: a PSYB50-series half-credit

PSYC544H 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 drawing, the perception of pictures by the sighted, and blind people identifying missing pictures. It will also include studies on children and adults using literal and non-literal representation, 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: [PSYB07H or SOCB06H or STAB22H] & a PSYB50-series half-credit

PSYC595H 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: PSYB57H & PSYB65H

PSYC659H Psychology of Music
Studied the perceptual and cognitive processing involved in musical perception and performance. This class acquaints students with the basic concepts and issues involved in the understanding of musical passages. Topics will include discussion of the physical and psychological dimensions of sound, elementary music theory, pitch perception, and periodic organization; the perception of rhythm and time, musical memory, musical performance, and emotion and meaning in music.
Prerequisite: [PSY6A0H & PSY4A01H] or (PSY6A0Y, PSYB07H or SOCB06H or STAB22H) & a PSYB50-series half-credit

PSYC658H Cognitive Psychology Laboratory
This course introduces conceptual and practical issues concerning research in cognitive psychology. Students will be introduced to current research methods through a series of practical exercises conducted on computers. By the end of the course, students will be able to program experiments, manipulate data files, and conduct basic data analyses. Limited enrolment: 25
Exclusion: PSY130H
Prerequisite: Two B-level half-credits in Psychology & [PSYB07H or SOCB06H or STAB22H] or permission of the instructor

PSYC692H 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 neurochemical mechanisms of drug action, and the psychotropic drug classification. In addition, the psychoactive and psychological dependence, tolerance, sensitization, and reinforcement and aversion will also be covered.
Exclusion: PSY198H & PCL4A3Y
Prerequisite: [PSYB07H or SOCB06H or STAB22H] & PSYB65H & one additional B-level half-credit in PSY or NRO

PSYC628H Theoretical Psychology
An introduction to the problems and methods of theoretical analysis in psychology.

The emphasis of the course is on developing sophistication in the techniques of theoretical analysis. The aim is to enable the student to read and evaluate the current literature in theoretical psychology.
Exclusion: PSY341H
Prerequisite: [PSYB07H or SOCB06H or STAB22H] or permission of the instructor

PSYC685H History of Psychology
A survey of developments in Western philosophy and science which influenced the emergence of modern psychology in the second half of the Nineteenth Century. Three basic problems are considered: mind-body, epistemology (science of knowledge), and behaviour/motivation/ethics. We begin with the ancient Greek philosophers, and then consider the contributions of European scholars from the Fifteenth through Nineteenth Centuries. Twentieth Century schools are discussed including: psychoanalysis, functionalism, structuralism, gestalt, behaviourism, and phenomenology.
This course is restricted to 3rd and 4th year Specialists in Psychology.

Psychobiogenetics and Cognitive Science.

Limited enrolment: 20
Exclusion: PSY340H
Prerequisite: Two B-level half-credits in Psychology & [PSYB07H or SOCB06H or STAB22H] or permission of the instructor

PSYC696H Psychology of the Unconscious
Successful study in Psychology requires a strong ethics component and an understanding of the ethical implications of psychological practice.

Exclusion: PSY198H & PCL4A3Y
Prerequisite: [PSYB07H or SOCB06H or STAB22H] & PSYB65H & one additional B-level half-credit in PSY or NRO

Such a project will culminate in a written submission.

Students must obtain a permission form from the Life Sciences Office (S521B) that is to be completed and signed by the intended supervisor, and returned to the Life Sciences 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 are further advised to verify first with the Supervisor of Studies that the prospective project supervisor currently holds a cross-appointment at the University of Toronto.

Exclusions for PSYC696H: COGS38H, NRC309H, PSYJ303H, PSY304H
Exclusions for PSYC393H: COGS92H, NRC309H, PSYJ303H, PSY304H
Prerequisite: Three full-credit equivalents in Psychology & permission of the instructor.

PSY315H3 Current Topics in Social Psychology

An intensive examination of selected issues and research problems in social psychology.

Limited enrolment: 20
Exclusion: PSYJ306H, PSY420H
Prerequisite: PSYB101H or PSYC121H or PSYC344H

PSY169H Critical Analysis in Social Psychology

The development of social psychology is examined both as a discipline (its phenomena, theory, and methods) and as a profession. The Natural and Human Science approaches to phenomena are contrasted. Students are taught to observe the 'lived-world', choose a social phenomenon of interest to them, and then interview people who describe episodes from their lives in which these phenomena occurred. The students interpret these episodes and develop theories to account for their phenomena before searching for scholarly research on the topic.

Limited enrolment: 20
Exclusion: PSY420H
Prerequisite: PSYC110H or PSYC121H or PSYB101H plus one c-level half-credit in PSY
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. Teaching method: seminar. Limited enrolment: 20
Exclusion: PSY32H3
Prerequisite: PSY110H plus two C-level half-credit in PSY

PSYD20H3 Current Topics in Developmental Psychology
An intensive examination of selected issues and research problems in developmental psychology. The specific content will vary from year to year with the interests of both instructor and students. Lectures, discussions, and oral presentations by students. Limited enrolment: 20
Exclusion: PSY410H
Prerequisite: PSYC23H1 or PLIC24H1 or PSYD30H3 plus one C-level half-credit in PSY

PSYD22H3 Socialization Processes
The processes by which an individual becomes a member of a particular social system (e.g., family, peer group). The course examines both the content of socialization (e.g., development of specific social behaviours) and the context in which it occurs. Limited enrolment: 20
Exclusion: PSY311H, PSY410H
Prerequisite: PSYB10H & PSYB20H plus one C-level half-credit in PSY

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. Limited enrolment: 20
Exclusion: PSY410H
Prerequisite: PSYB30H plus one C-level half credit in PSY

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. Limited enrolment: 20
Exclusion: PSY440H
Prerequisite: PSYB32H plus one C-level half-credit in PSY

PSYD34H3 Human Intelligence
Part I: An examination of the classical theories as well as past research strategies and findings in the field of human intelligence. Part II examines current research 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 in IQ tests. Limited enrolment: 20
Exclusion: PSYB61H & [PSYB71H or SOCB68H or STAT221H] PSYC08H also recommended.

PSYD50H3 Current Topics in Memory and Cognition
An intensive examination of selected topics. The specific content will vary from year to year. Limited enrolment: 20
Exclusion: PSY470H, (PSY411H)
Prerequisite: PSYB57H plus one C-level half-credit in PSY

PSYD15H3 Current Topics in Perception
The course provides a survey of the recent developments in the area of multisensory integration. Selected readings will cover psychological and neurophysiological findings, neuropsychological results, synaesthesia and an introduction to the Bayesian mechanisms of multisensory integration as well as the applications of multi-sensory approaches. Limited enrolment: 20
Prerequisite: PSYB51H & PSYC08H

PSYD52H3 Fundamental Issues in Cognitive Science
An examination of the conceptual and theoretical issues that lie at the foundations of cognitive science. Topics include: the mind-body problem, functionalism, mental representations, metaphysics, propositional attitudes, nativism, the modularity of mind, rationality, artificial intelligence, consciousness. Limited enrolment: 20
Exclusion: (PSYD100H)
Prerequisite: [PSYB71H or SOCB68H or STAT221H] & a PSYB30-series half-credit & a PSY C-level half-credit or permission of the instructor

PSYD58H3 The Scientific Study of Conscious and Unconscious Influences
This course focuses on empirical attempts to distinguish between conscious and unconscious processes, and to better understand the manner in which they combine to affect performance. The course will begin with a brief history of experiments studying conscious and unconscious influences, and will then shift to a detailed examination of more current approaches. Topics covered will include subliminal perception, conscious versus unconscious memory, and models of the relation between conscious and unconscious influences. Limited enrolment: 20
Prerequisite: PSYB57H and at least one C-level course in Psychology

PSYD60H3 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 computer, cognition or neuroscience. Students are expected to read and comment on articles, attend the talks, and write a final paper. Limited enrolment: 5
Prerequisite: Minimum cumulative GPA of at least 3.6 & permission of instructor

PSYD85H3 Psychology and its Applications. Advanced Seminar
Students will undertake library research relating to their work experience, make classroom presentations, and submit a written paper. Enrolment in this course is limited to students in the Specialist (Co-operative) Program in Psychology and its Applications. Prerequisite: Satisfactory completion of the two required work terms and associated work term reports.

PSYD88Y3 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 defence of that report. 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 will meet as a group with the coordinator as well as individually with their supervisor. This course is restricted to Specialists in Psychology with a cumulative GPA of 3.3 or higher. Students planning to pursue graduate studies are especially encouraged to enrol in the course. Students must obtain a permission form from the Life Sciences Office (3521B) that is due to be completed and signed by the intended supervisor, and returned to the Life Sciences 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. Exclusion: NROD98Y1, COGD104H, PSY600V
Prerequisite: PSYB10H & [PSYB71H or SOCB68H or STAT221H] & PSYC08H, Psychology Specialist, cumulative GPA of 3.3 or higher.
Corequisite: 0.5 D-level credit in Psychology
Society and Environment [B.A.]

Faculty List
F. D. Burton, B.Sc., M.A., (NYU), Ph.D. (CUNY), Professor Emeritus
J. Hanigan, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Professor
J. R. Mitton, B.A. (Queen's), M.A. (Pitt), Ph.D. (Toronto), Professor
E. C. Relph, B.A., M. Phil. (London), Ph.D. (Toronto), Professor
M. F. Bunker, B.A., Ph.D. (Sheffield), Associate Professor
M. Latta, B.A. (Kansai), M.A., Ph.D. (Toronto), Associate Professor
S. Ungar, B.A. (McGill), M.A., Ph.D. (York, Canada), Associate Professor
S. Bamford, B.A. (Toronto), M.A. (McMaster), Ph.D. (Virginia), Assistant Professor
K. Macdonald, B.A., M.A., Ph.D. (Waterloo), Assistant Professor

Discipline Representative/Supervisor of Studies: Sandra Bamford
E-mail: bamford@soc.utoronto.ca

The Program in Society and Environment offers an interdisciplinary approach to environmental issues from the perspective of the social sciences. It assumes that the distinction between environment as commonly understood (i.e., the physical environment) and the social world is artificial and that environmental problems are mostly created by human societies. A clear understanding of environmental issues from this perspective requires knowledge of social processes of production, race, the history of conservation, of planning and urban development, and of human ecology, as well as of natural processes. In this Program, the complex interactions between societies and environments are approached through a core of specialized courses, social science methods and theories, which are applied specifically to the themes of relations between humans and environments; planning cities; policies for agriculture and food; practices and policies for health. In order to pursue these themes, students can select from relevant courses in Sociology, Political Science, Geography, Anthropology, International Development Studies, Environmental Science, and other related disciplines. It therefore combines well with those disciplines for students who wish to combine Society and Environment with another Major.

MAJOR PROGRAM IN SOCIETY AND ENVIRONMENT

Program Requirements
The requirements for this Program are eight full credits, as follows:

- Introductory Courses:
  - GGRA32H Geography and Global Processes
  - GGRA30H Cities and Environments

Students are also recommended to take 1 FCs (full credit equivalents) from:
- ANTA01H Introduction to Anthropology: Becoming Human
- ANTA02H Introduction to Anthropology: Society, Culture and Language

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ECMA01H Introduction to Microeconomics
ECMA05H Introduction to Macroeconomics
EESA01H Introduction to Environmental Science
EESA06H Introduction to Planet Earth
HEIS10H The Twentieth Century World I
HEIS20H The Twentieth Century World II
HINT10H Plagues and People
POLA51H Critical Issues of Canadian Democracy
POLA90H Politics, Corruption and Violence
SOC301H Introduction to Sociology I
SOC302H Introduction to Sociology II

These courses may not be counted towards the Program requirements, but may be prerequisites for higher level courses in the Program.

Focus Courses:
- GCRD20H Environmental Conservation and Sustainable Development
- ANTH11H Political Ecology
- IDS301H International Development Studies: Development and Environment
- ANCC11H Environmental Stress, Culture and Human Adaptability

Plus one full credit from:
- ANTH11H Introduction to World Prehistory: The Old Stone Age
- ANTH12H Introduction to World Prehistory: The Rise of Civilization
- ANTH14H Biological Anthropology: Beginnings
- ANTH15H Contemporary Human Evolution and Variation
- ANT13H First Nations of North America: Hunters, Gatherers, Farmers
- ANT13H First Nations of North America: Social Complexity and the State
- ANT15H Health and the Urban Environment
- CLAR05H The Mediterranean World I: Greece
- CLAR06H The Mediterranean World II: Rome
- EES109H Biotechnology-Environmental Implications
- EESB10H Feeding Humans: The Cost to the Planet
- GGBR08H Urban Geography
- GGBR09H Planning in Canada
- IDS301H IDS-Policy Economy
- IDS541H IDS-Project Management
- SOCI40H Urban Sociology: Macro-Analysis
- SOCI40H Urban Sociology: Micro-Analysis

Methodology:
One full credit from:
- ANTC38Y Introduction to Archaeological Field Methods
- ANTC06H Fieldwork in Social and Cultural Anthropology
- EES03H Remote Sensing and Geographic Information Systems
- EESC13H Environmental Impact Assessment and Auditing
- GGRA30H Geographic Information Systems
- SOCR04H Quantitative Methods in Social Research
- SOCR06H Qualitative Methods in Social Research
- SOCR06H Social Statistics
- STAB2H Statistics I

Advanced Courses:
Three full credits from:
- ANTC10H Anthropological Perspectives on Development
- ANTC50H Death and Burial

ECMA01H Introduction to Microeconomics
ECMA05H Introduction to Macroeconomics
EESA01H Introduction to Environmental Science
EESA06H Introduction to Planet Earth
HEIS10H The Twentieth Century World I
HEIS20H The Twentieth Century World II
HINT10H Plagues and People
POLA51H Critical Issues of Canadian Democracy
POLA90H Politics, Corruption and Violence
SOC301H Introduction to Sociology I
SOC302H Introduction to Sociology II

These courses may not be counted towards the Program requirements, but may be prerequisites for higher level courses in the Program.

Focus Courses:
- GCRD20H Environmental Conservation and Sustainable Development
- ANTH11H Political Ecology
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Plus one full credit from:
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- ANTH12H Introduction to World Prehistory: The Rise of Civilization
- ANTH14H Biological Anthropology: Beginnings
- ANTH15H Contemporary Human Evolution and Variation
- ANT13H First Nations of North America: Hunters, Gatherers, Farmers
- ANT13H First Nations of North America: Social Complexity and the State
- ANT15H Health and the Urban Environment
- CLAR05H The Mediterranean World I: Greece
- CLAR06H The Mediterranean World II: Rome
- EES109H Biotechnology-Environmental Implications
- EESB10H Feeding Humans: The Cost to the Planet
- GGBR08H Urban Geography
- GGBR09H Planning in Canada
- IDS301H IDS-Policy Economy
- IDS541H IDS-Project Management
- SOCI40H Urban Sociology: Macro-Analysis
- SOCI40H Urban Sociology: Micro-Analysis

Methodology:
One full credit from:
- ANTC38Y Introduction to Archaeological Field Methods
- ANTC06H Fieldwork in Social and Cultural Anthropology
- EES03H Remote Sensing and Geographic Information Systems
- EESC13H Environmental Impact Assessment and Auditing
- GGRA30H Geographic Information Systems
- SOCR04H Quantitative Methods in Social Research
- SOCR06H Qualitative Methods in Social Research
- SOCR06H Social Statistics
- STAB2H Statistics I

Advanced Courses:
Three full credits from:
- ANTC10H Anthropological Perspectives on Development
- ANTC50H Death and Burial
ANTC 621H Medical Anthropology—Illness and Healing in Cultural Perspective
ANTC 622H Medical Anthropology: Biological and Demographic Perspectives
ANTC 631H The Anthropology of Food: Consuming Passions
ANTD 160H Biomedical Anthropology
EDSC 211H Urban Environmental Problems of the Greater Toronto Area
(EESC 228H) Environmental Law
GGRG 302H Population Geography
GGRG 307H Countryside Conservation
GGRG 251H Issues in Rural Development
GGRG 252H Agriculture, Environment and Development
GGRG 331H The Greater Toronto Area
GGRG 451H Local Geographies of Globalization
GGRG 456H Tourism, Environment and Development
POLS 353H Canadian Environmental Politics
POLS 388H The New International Agenda
POLS 888H Exploring the New International Agenda
SOC 370H Environment and Society
SORD 301H Environmental Internship
WSTD 201H Women and Environment.

SODE 010H 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 (B.A.)
Faculty List
W. W. I. L. J., B.A. (LaSalle), M.A., Ph.D. (Catholic Univ. of America), Professor Emeritus
J. Harrigan, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Professor
P. O'Toole, B.A. (Lancaster), P.C.C. (London), M.A. (McMaster), Ph.D. (Toronto), Professor.
A. Seveer, B.A., M.A. (Windsor), Ph.D. (York, Canada), Professor
J. Tanner, B.Sc. (Hons.) (London) PGCE (Leicester), M.A., Ph.D. (Alberta), Professor
M. Hammond, B.A. (California), M.A., Ph.D. (Toronto), Associate Professor
P-C. Huang, B.A. (National Chiao-tung University), M.A. (Chinese Cultural University), M.A. (UCLA), Ph.D. (UCLA), Associate Professor
S. Ungar, B.A., M.A. (McGill), M.A. (York, Canada), Associate Professor
J. Hesner, B.A. (Western), M.A. (Carleton), D.Phil. (Oxon), Assistant Professor
P. Landolt, B.A., M.A. (York), Ph.D. (Johns Hopkins), Assistant Professor
A. Mullen, B.A. (California), M.A., Ph.D. (Yale), Assistant Professor

Discipline Representative: P. Landolt (416-287-7156), E-mail: landolt@uottawa.ca

Sociology is the scientific study of interaction among people, the social relations which they establish, and the social groups which they form. Sociology attempts to explain 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, a Major or Minor Program.

The introductory courses, SOCA01H and SOCA02H (SOCA01Y), 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 is a prerequisite to all of the more advanced courses. Students who want to learn about certain areas of sociology which may be useful in later occupational situations may consult faculty advisors who are prepared to assist them in course selection. There are no formal requirements for these special areas and they will not be designated on diplomas.

The faculty advisors for special areas of concentration are:
- Social Work Prof. A. Seveer (seveer@uottawa.ca)
- Urban Studies Prof. J. Harrigan (j.harrigan@uottawa.ca)
- Education Prof. J. Tanner (j.tanner@uottawa.ca)

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, SOCA01H, SOCA02H, SOCA11H, SOCA12H and SOCA13H should be taken during the second year, and SOCA41H and SOCA41H 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 as 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
Supervisor of Studies: S. Ungar Email: sociology-supervisor-studies@uottawa.ca

Program Admission
Enrollment in the Specialist Program is limited. Students must normally apply to enter the Program after completing 4 cr of full credits including SOCA01H and SOCA02H (SOCA01Y). 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 SOCA01H and SOCA02H (SOCA01Y). 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 SOCA06H, SOCA04H, SOCA04H, SOCA02H and SOCA03H for fall/winter sessions, in the summer early registration period.

Program Requirements
The program requires completion of ten full credits as described below. No more than fourteen full credits equivalents in Sociology may be included in a four-year degree.

1. SOCA01Y Introduction to Sociology or [SOCA01H Introduction to Sociology I and SOCA02H Introduction to Sociology II]
2. SOCB01H Social Statistics
3. SOCB04H Quantitative Methods
4. SOCB01H Qualitative Methods
5. SOCB02H Classical Sociological Theory Part I
6. SOCB03H Classical Sociological Theory Part II
7. Two full-course equivalents at B-level in Sociology
8. SOCC01H Contemporary Sociological Theory, Part I
9. SOCC04H Contemporary Sociological Theory, Part II
10. One and a half full credits at C-level
11. One full credit equivalent at D-level
12. One other full credit in Sociology
1. SOC401Y Introduction to Sociology
   or [SOC401H Introduction to Sociology I
   and SOC403H Introduction to Sociology II]
2. SOC380H Social Statistics
3. SOC340H Qualitative Methods
4. SOC341H Quantitative Methods
5. SOC424H Classical Sociological Theory I
6. SOC434H Classical Sociological Theory II
7. Three and a half full credits in Sociology, at least one and a half of which must be at the C-level

SOC491H3 Introduction to Sociology
Course description: 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: [SOC401Y, SOC401Y]

SOC491Y3 Introduction to Sociology
An introduction to the basic concepts, principles and methods of sociology as a discipline for the study of society. Major topics studied include: the nature of social groups, social processes, culture, socialization, deviant behaviour, population, community, stratification, social institutions and social change.
Exclusion: SOC401Y

SOC428H3 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.
Exclusion: [SOC401Y, SOC401Y]
Prerequisite: SOC401H

SOCI790H3 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. This course is intended to supplement SOC404H. Limited enrolment: 170
Exclusions: ANT333H, ECMB140Y, ECMB141H, PSYB10H, SOC201Y, SOC300Y, STAD22H
Prerequisite: [SOC401H & SOC402H] or [SOC401Y]

SOC726H3 Sociology of Education
This course is an introduction to the study of education from a sociological perspective, focusing upon elementary and secondary schooling. Topics covered include: functional and conflict theories of education; equality of opportunity; school and work; ability groups in elementary schools; tracking and streaming in high
SOCS444H3 Urban Sociology: Macro-Analysis
A theoretical and empirical examination of the processes of urbanization and suburbanization. Consider classic and contemporary approaches to the ecology and social organization of the pre-industrial, industrial, corporate and postmodern cities.
Limited enrolment: 170
Exclusion: SOCS254Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS445H3 Urban Sociology: Micro-Analysis
Examines the organizational and social psychological dimensions of urbanism in relation to local neighbourhoods, sub-cultures, networks and lifestyles. Students will be required to undertake a fieldwork study as part of the course requirements.
Limited enrolment: 170
Exclusion: SOCS255Y, SOCS205Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS446H3 Social Class and Stratification I
The description and analysis of the patterns of social stratifications and theories of social inequality up to and during the first three centuries of the Industrial Revolution.
Limited enrolment: 170
Exclusion: SOCS205Y, SOCS205Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS447H3 Social Class and Stratification II
The description and analysis of patterns of social stratification and theories of social inequality in the contemporary world, with special emphasis on the Canadian situation.
Limited enrolment: 170
Exclusion: SOCS205Y, SOCS205Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y), SOCS446H

SOCS448H3 Family and Society
Focuses on the interaction between family and society by considering the historical, social, political and economic influences on family life and by examining how the family unit affects the social world. Readings draw on theory, history and ethnographic materials.
Limited enrolment: 170
Exclusion: SOCS214Y, SOCS212Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS450H3 Family in Transition
This course explores the family as a social institution, which shapes and at the same time is shaped by, the society in North America. Specific attention will be paid to family patterns in relation to class, gender, and racial/ethnic stratifications. Selected focuses include: socialization; courtship; heterosexual, gay and lesbian relations; gender division of labor; immigrant families; childbearing and childrearing; divorce; domestic violence; elderly care.
Limited enrolment: 170
Exclusion: SOCS214Y, SOCS212Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS453H3 Deviance and Normality I
This course explores how deviance and normality is constructed and contested in everyday life. The course revolves around the themes of sexuality, gender, poverty, race and intoxication. Particular attention will be paid to the role of official knowledge in policing social norms.
Limited enrolment: 170
Exclusion: SOCS210Y, SOCS211Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS454H3 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 intoxication. Particular attention will be paid to the role of official knowledge in policing social norms.
Limited enrolment: 170
Exclusion: SOCS210Y, SOCS211Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS525H3 Immigration and Ethnicity in Canada
The course introduces students to sociological approaches to the study of immigration and ethnicity. It examines the historical and contemporary relationship between immigration and nation-state building, focusing on changes in immigration flows, labour market integration and exclusion, community formation and civic participation among immigrant groups.
Limited enrolment: 170
Exclusion: SOCS210Y, SOCS212Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS526H3 Ethnicity, RacIALIZATION and Identity Formation in Canada
The course examines the relationship between nation-state formation and the social construction of ethnic and racial identities in Canada. The focus is on the ways in which ideological constructs and public representations of ethnic and racialized groups contour the character of formal and informal, private and public institutions.
Limited enrolment: 170
Exclusion: SOCS210Y, SOCS212Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS528H3 Sociology of Work and Industry I
An examination of the issues relating to the world of work: young people and the labour market; women and work; race and ethnicity in the workplace; the professions.
Limited enrolment: 170
Exclusion: SOCS235Y, SOCS205Y, SOCS315Y, SOCS317Y, SOCS305Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)

SOCS529H3 Sociology of Work and Industry II
An examination of key issues relating to the world of work: explaining workplace behaviour; job satisfaction; reforming the workplaces; trade unions and industrial relations; deviance in the workplace.
Limited enrolment: 170
Exclusion: SOCS235Y, SOCS205Y, SOCS315Y, SOCS317Y, SOCS305Y
Prerequisite: [SOCA01H & SOCA02H] or (SOCA01Y)
SOC256H3 Sociology of Mass Media and Communications: Institutions, Technologies and Politics
Focus on key aspects of the development of media institutions and cultural policies in Canada. Topics include themes of ownership and control, globalization of information, political communication and propaganda, legal and regulatory systems, cultural protection policies and national identity. Limited enrolment: 170
Exclusion: (SOC347Y), (SOC348Y)
Prerequisite: [SOC201H1 & SOC202H1] or (SOC401Y)

SOC257H3 Sociology of Mass Media and Communications: Texts and Audiences
An examination of mass media content, discourses and effects. Topics include representation of women and minorities, effect of televised violence on children; social construction of crime waves and moral panics; promotional culture; advertising and social change. Limited enrolment: 170
Exclusion: (SOC347Y), (SOC348Y)
Prerequisite: [SOC201H1 & SOC202H1] or (SOC401Y)

SOC303H Sociology of Gender and Work
The study of the interaction of gender and work, both paid and unpaid work. Critically assesses some of the 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. Limited enrolment: 60
Exclusion: (SOC366Y)
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOC401H1, SOCB4H1, SOCB4H2, SOCB4H3, SOCB4H4

SOC304H3 Social Movements
The development of an approach to social movements which includes the following: the origin of social movements, mobilization processes, the career of the movement and its mobilization. The course readings will be closely related to the lectures, and a major concern will be to link the theoretical discussion with the concrete readings of movements. Limited enrolment: 60
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3, SOCB4H4

SOC305H3 Gender and Information Technology
Examines the relationship between gender and information technology (IT). It explores the roles of family, ideology, state policies, and other social institutions, and in the context of development and globalization. Students will develop and apply analytical skills to understand gender and IT in everyday life. Limited enrolment: 60
Exclusion: SOC356Y
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3

SOC306H3 Sociology of Gender and Work
Examines the interaction of gender and work, both paid and unpaid work. Critical assessments of some of the 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. Limited enrolment: 60
Exclusion: SOC366Y
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3, SOCB4H4

SOC308H3 Gendered Salves, 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. Limited enrolment: 60
Exclusion: SOC365Y
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3, SOCB4H4

SOC311H3 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. Limited enrolment: 60
Exclusion: SOC221Y, SOC360Y
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB3H1, SOCB3H2, SOCB4H1, SOCB4H3, SOCB4H4

SOC316H3 Sociology of Conflict and Co-operation
An examination of international conflict and cooperation in the context of global change. This course begins with an examination of the nuclear arms race, then explores how technology, economics, population growth, and environmental interactions create interdependencies and afford new opportunities for world order. Special attention is given to North-South relations and to climate change. Limited enrolment: 60
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3, SOC262H1

SOC318H3 Sociology of Culture
An examination of the production and reception of culture in various social contexts. Specific attention is focused on the significance of art in different historical and contemporary circumstances. Limited enrolment: 60
Exclusion: SOC360Y
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3, SOCB4H4

SOC321H3 Sociology of Religion
An examination of the role of religion in society. Consideration of the problem of appropriate definition precedes a 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. Limited enrolment: 60
Exclusion: SOC212Y, SOC250Y, ROC210Y
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3, SOCB4H4

SOC323H3 Cross-Cultural Family Forms
A sociological and historical analysis of diverse family forms across the ages and in different geographic locations. How consensus versus conflict theories account

SOC324H3 Changing Family Life in Canada
A theoretical and empirical examination of different forms of family and the major changes in the structure and function of family life in Canada. Of special interest are topics like women and work, race/referent and family diversity, declining birth rates, high divorce rates and new reproductive technologies. Limited enrolment: 60
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3, SOCB4H4, SOCB4H8, SOCB4H9

SOC325H3 Comparative Ethnic and Race Relations
An examination of the formation of ethnic and racial identities within a range of nation-states, as well as the construction of diachronic or transcultural cultural identities. Drawing on studies from advanced capitalist and third world locations, it identifies differences and similarities in patterns of racialization and the collective responses that subordinated populations forge to challenge marginalization. Limited enrolment: 60
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3, [SOC253H1 or SOC353H1]

SOC326H3 Sociology of Urban Growth
A study of the conditions, patterns and consequences of urban growth and development. Major topics will include the emergence of new urban institutions (legal, political, economic) and the formation and operation of urban social networks. Limited enrolment: 60
Exclusion: SOC218Y
Prerequisite: [SOC201H1 & SOC202H1 or (SOC401Y)], SOCB4H1, SOCB4H2, SOCB4H3, SOCB4H4, SOCB4H5, SOCB4H6
SOCC33H3 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.
Limited enrolment: 60
Exclusion: (SOCC25H1, SOCC27H1)
Prerequisite: (SOCA01Y, SOCA02H) or (SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H, SOCB44H, SOCB49H)

SOCC33H3 Criminal Behaviour
An advanced study of the causes and consequences of criminal behaviour, with special emphasis on Canada.
Limited enrolment: 60
Exclusion: SOCB36Y1, WDR203Y1
Prerequisite: SOCA01H & SOCA02H or (SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H, SOCB44H, SOCB45H)

SOCC33H3 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.
Limited enrolment: 60
Exclusion: SOCB23H1
Prerequisite: SOCA01H & SOCA02H or (SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H)

SOCC34H3 Globalization: Causes, Consequences and Critique
Examines the relationship between the post-seventies transformation of capitalist accumulation strategies, the shifting mandate, jurisdiction and political reach of state governments and international regulatory bodies, and the experiences of the worker, the citizen, and the consumer across a range of locations. Both mechanisms of domination and the contestatory and adaptive strategies of the excluded and marginalized are considered.
Limited enrolment: 60
Prerequisite: (SOCA01H & SOCA02H or SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H or IDS30H1)

SOCC404H3 Contemporary Sociological Theory Part I
The development of sociological theory from the end of World War II to the late 1960's. Special attention is devoted to the perspectives of Functionalism, Conflict Theory and Symbolic-Interactionism.
Limited enrolment: 60
Exclusion: (SOCC13Y1, SOCC18Y1)
Prerequisite: SOCA01H & SOCA02H or (SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H)

SOCC414H3 Contemporary Sociological Theory Part II
The development of sociological theory from the 1960's to the present. Phenomenological, Socio-Biological, Rational-Choice and other perspectives are explored.
Limited enrolment: 60
Exclusion: (SOCC13Y1, SOCC18Y1)
Prerequisite: (SOCA01H & SOCA02H or SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H, SOCB44H)

SOCC424H3 Supervised Independent Research
Student research by field methods, survey analysis or library or archival research. Regular supervision of data collection and analysis, culminating in a research report. Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusion: SOCB70Y1, SOCB79Y1, SOCB32H1
Prerequisite: Completion of at least fifteen full-credit equivalents including (SOCA01H & SOCA02H or SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H, SOCB44H) and permission of the instructor.

SOCC424H3 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.
Exclusion: (SOCC44Y1)
Prerequisite: (SOCA01H & SOCA02H or SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H, SOCB44H, SOCB44H, SOCB44H)

SOCC424H3 Advanced Seminar in Research Methods
Special topics in quantitative and/or qualitative methodologies used in contemporary sociological research. Restricted to final year students taking a Specialist Program in Sociology.
Prerequisite: (SOCA01H & SOCA02H or SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H, SOCB44H, SOCB44H, SOCB44H, SOCB44H, SOCB44H, SOCB44H)

SOCC424H3 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: (SOCA01H & SOCA02H or SOCA01Y, SOCB40H, SOCB41H, SOCB42H, SOCB43H, SOCB44H, SOCB44H, SOCB44H, SOCB44H, SOCB44H, SOCB44H)

Statistics (B.Sc.)

Faculty List:
M. Evans, B.Sc. (Western Ontario), M.Sc., Ph.D., Professor
K. Butler, Ph.D. (Simon Fraser University), Lecturer
A. Hashim, B.Sc. (Olemba), Ph.D. (Munich), Lecturer

Discipline Representative: A. Hashim (416-287-7525)

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 efficacies of different vaccines.

STAB264H and STAB274H serve as a non-technical introduction to statistics. These courses are designed for students from disciplines where statistical methods are applied. STAB252H is a mathematical treatment of probability. STAB357H 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.

**SPECIALIST PROGRAM IN LIBERAL SCIENCES**

(See the Physical Sciences Scarborough section of this Calendar.)

**MAJOR PROGRAM IN STATISTICS**

Supervisor of Studies: A. Hashim  Email: hashim@stat.mcmaster.ca

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 8.0 full credits.

**First Year**

CSCA48H1 Introduction to Computer Science or
PSCB57H1 Introduction to Scientific Computing
MATA21H3 Linear Algebra I
MATA30H3 Calculus I
MATA36H3 Calculus II for Physical Sciences or
MATA37H3 Calculus II for Mathematical Sciences (recommended)

**Second Year**

MATH240H1 Linear Algebra II
MATH341H3 Techniques of the Calculus of Several Variables I
MATH342H3 Techniques of the Calculus of Several Variables II
STAB251H An Introduction to Probability
STAB370H An Introduction to Statistics

**Third and Fourth Year**

STAC270H Regression Analysis
2.0 FCE from any C (or 300-400 on St. George) level courses in STA
1.0 FCE from any C (or 300-400 on St. George) level courses in ACT, CSC, MAT or STA

Also see the Computer Science section of this Calendar for the Specialist Program in Computer Science and Statistics.

The Statistics stream of the Specialist Program in Mathematics and its Applications and the Major Program in Statistics are eligible for inclusion in the Co-operative Program in Mathematical and Physical Sciences and the Early Teacher Project in Mathematical and Physical Sciences. Please refer to the Physical Sciences Scarborough section of this Calendar for further information.

**STAB22H3 Statistics I**

This course is a basic introduction to statistical reasoning and methodology, with a minimal amount of mathematics and calculation. The course covers descriptive statistics, populations, sampling, confidence intervals, tests of significance, correlation, regression and experimental design. A computer package is used for calculations.


**STAB271H3 Statistics II**

This course follows STAB22H, 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 interpretation of some standard experimental designs. Students may be asked to complete a project as part of their assessed work for this course.

Exclusion: ECMB11H, STAB27H, STAC231H, STAC25H.

**STAB253H5 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.

Exclusion: STA120H, STA270H.

Prerequisites: MATH16H3 or MATH27H3

**STAB275H3 An Introduction to Statistics**

A mathematical treatment of the theory of statistics. The covered include: the statistical model, data collection, descriptive statistics, estimation, confidence intervals and P-values, likelihood inference methods, distribution-free methods, book-keeping, Bayesian methods, relationship among variables, contingency tables, regression, ANOVA, logistic regression, applications. A computer package will be used.

Exclusion: STA261H.

Prerequisite: STAB252H

**STAC424H1 Multivariate Analysis**


Exclusion: STAC43H1

Prerequisite: STAC47H1

**STAC525H3 Experimental Design**

The statistical aspect of collecting and analyzing experimental data. Complete randomization and restricted randomization schemes.

Exclusion: STAC25H1

Prerequisite: STAC67H1

**STAC573H1 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.

Exclusion: STAC45H1

Prerequisite: STAC62H1

**STAC62H3 Stochastic Processes**

This course continues the development of probability theory begun in STAB252H. Topics covered include Poisson processes, Gaussian processes, Markov processes, renewal theory, queuing theory, martingales and stochastic differential equations.

Prerequisite: (STAC47H1) or STAB25H1

**STAC67H0 Regression Analysis**


Exclusion: STA362H1

Prerequisite: (STAB47H1) or STAB57H1
Studio

See the Visual and Performing Arts section of this Calendar.

Visual and Performing Arts
(B.A.)

Faculty List
G. Scavuzzo, M.A., Ph.D. (Turin), Professor Emeritus
M.S. Shaw, M.A., Ph.D. (Bryn Mawr), Professor Emerita
M. Gever, A.B. (Princeton), M.A. (Pittsburgh), Ph.D. (Toronto), Professor
W. Bowen, M.A., Ph.D. (Toronto), Associate Professor
L. Carney, M.A. (Columbia), Associate Professor
C. Clark, M.A. (McGill), M.A., Ph.D. (Carleton), Associate Professor
J. Mayo, M.A., Ph.D. (Toronto), Associate Professor
A.J.G. Pournoulis, M.A., Ph.D. (Birmingham), Associate Professor
M.O. Schonberg, M.A., Ph.D. (Toronto), Associate Professor
P. Sperdakos, B.A. (McGill), M.A., Ph.D. (Toronto), Associate Professor
L. Varga-Gervais, M.A., Ph.D. (Budapest), Associate Professor
E.A. Harvey, M.Phil., Ph.D. (London, U.K.), Assistant Professor
A. Stanbridge, M.A. (Wolverhampton), Ph.D. (Carleton), Assistant Professor
D. Helman, B.F.A. (Kansas City Art Institute), Senior Lecturer
J. Hoogstraten, B.F.A. (Manitoba), Senior Lecturer
T. Mars, Senior Lecturer
S.L. Helwig, B.A. (Guelph), M.A. (Toronto), Lecturer
T. Lantke, B.A. (Dundee), M.F.A. (York), Lecturer
A. Rapoport, Mus.M., Mus.Doc. (Toronto), Lecturer
A. Sanger, B.A. (Durham), Ph.D. (Queen's, Belfast), Lecturer
C. Smith, M.A., Ph.D. (Toronto), Lecturer
L. Whiting, Dip.Op.Perf. (Toronto), Lecturer
K. Wright, LL.B., Lecturer

Discipline Representative: Caryl Clark (416-287-7194)

Art, art management, drama, music, and studio 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 College's many plays, concerts, exhibitions and other art events. Students should also consider participating actively in, for instance, the series of choral and band courses and the public productions at the Leith Lee Browne Theatre. Please contact the UTSC Cultural Affairs office (416-287-7076) or the VPA Discipline Representative.

Specialist Programs
Art Management (Co-op)
Art and Culture
Major Programs
Art History
Drama
Music and Culture
Studio
Minor Programs
Art History
Drama
Music History
Studio

For Co-op opportunities related to the Specialist Program in Art & Culture and 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.

Courses which may fulfill the requirements of the Program:

Art History
- VPA308H Collaborations in the Visual and Performing Art
- VPA309H Dialogues in the Diaspora
- And any course in VPH

Drama
- VPA308H Collaborations in the Visual and Performing Arts
- And any course in VPD

Music
- VPA308H Collaborations in the Visual and Performing Arts
- And any course in VPM except VPA309H

Studio
- VPA308H Collaborations in the Visual and Performing Arts
- And any course in VPS

SPECIALIST PROGRAM IN ART AND CULTURE

Supervisor of Studies: M. Schonberg (416-287-7185) Email: schonber@utoronto.ca

This program provides training in the visual and performing arts in a university setting, both for students who want a conceptual and historical knowledge of the arts and the inter-relationships among them, and for those who wish primarily to develop their practical abilities. The program is a basis for careers or further study for future practitioners in the arts, for gallery and museum professionals, for academics, and for those who want a thorough knowledge of history, theory and practice in the arts.

The core courses give a basic knowledge of music, visual art and drama, as well as opportunities to develop writing and computing skills and to explore art concepts and theories. Beyond this core, options range from concentration in one area to work across all the arts. All students in the program are expected to take advantage of the opportunities that exist on this campus to participate in arts events and clubs, as spectators and members and, where appropriate, as artists. Students following the Drama, Multi-Disciplinary, Music and Studio streams of this Program should consult the Major and Minor Programs in these areas for instructions concerning the required courses in Performance and Studies.

The VPA Study Guide is available at:
http://www.arts.utoronto.ca/~t3/underco/VPA/VPA/studyguide/

Program Requirements
The Specialist Program in Art and Culture requires the completion of 33.5 full credits within a twenty-credit degree. This program has five streams: Multi-Disciplinary, Art History; Drama; Music and Studio. These programs are designed to provide in-depth study in the Visual and Performing Arts.

SPECIALIST IN ART AND CULTURE (MULTI-DISCIPLINARY)

The Specialist in Art and Culture (Multi-Disciplinary) requires the following courses:

1. a) Two Minor Programs from the Visual and Performing Arts plus
b) One full credit in Visual and Performing Arts at the A- or B-level from an area outside those of the chosen Minor Programs. Approval of the Supervisor is required.

or

b) Individual plan of study: a student may design a set of seven full credits, including two full credits at the C- or D-level, in order to pursue an individual approach to a Visual and Performing Arts subject. The student must confer with the Supervisor and get prior approval of the individual plan of study.
Two full credits at the A- and/or B-level in Visual and Performing Arts from areas outside those of the individual plan of study. Approval of the Supervisor is required.

2. Core courses required for all streams:
PHLB03H The Art of Thinking
VPAB03H Computers and the Arts
VPAB05H Cultural Theory
VPHC47H The Body: Theories and Representations, Part One
VPHC48H The Body: Theories and Representations, Part Two
VPAC03H Intermediate Seminar
VPAA05H Senior Project

3. At least 1 full credit from:
A B level course in English chosen in consultation with the Program Supervisor
PHLB03H Philosophy of Art
VPAB06H Cultural Pluralism I

SPECIALIST IN ART AND CULTURE (ART HISTORY)
The Specialist in Art and Culture (Art History) requires the following courses:

1. The Major Program in Art History
   plus
   Two full credits at the A- and/or B-level in Visual and Performing Arts from areas outside
   of the Art History Major

2. Core courses required for all streams:
PHLB03H The Art of Thinking
VPAB03H Computers and the Arts
VPAB05H Cultural Theory
VPHC47H The Body: Theories and Representations, Part One
VPHC48H The Body: Theories and Representations, Part Two
VPAC03H Intermediate Seminar
VPAA05H Senior Project

3. At least 1 full credit from:
A B level course in English chosen in consultation with the Program Supervisor
PHLB03H Philosophy of Art
VPAB06H Cultural Pluralism I

SPECIALIST IN ART AND CULTURE (DRAMA)
The Specialist in Art and Culture (Drama) requires the following courses:

1. The Major Program in Drama
   plus
   Two full credits at the A- and/or B-level in Visual and Performing Arts from areas outside
   of the Drama Major

2. Core courses required for all streams:
PHLB03H The Art of Thinking
VPAB03H Computers and the Arts
VPAB05H Cultural Theory
VPHC47H The Body: Theories and Representations, Part One
VPHC48H The Body: Theories and Representations, Part Two
VPAC03H Intermediate Seminar
VPAA05H Senior Project

3. At least 1 full credit from:
A B level course in English chosen in consultation with the Program Supervisor
PHLB03H Philosophy of Art
VPAB06H Cultural Pluralism I

SPECIALIST IN ART AND CULTURE (MUSIC)
The Specialist in Art and Culture (Music) requires the following courses:

1. The Major Program in Music
   plus
   Two full credits at the A- and/or B-level in Visual and Performing Arts from areas outside
   of the Music Major

2. Core courses required for all streams:
PHLB03H The Art of Thinking
VPAB03H Computers and the Arts
VPAB05H Cultural Theory
VPHC47H The Body: Theories and Representations, Part One
VPHC48H The Body: Theories and Representations, Part Two
VPAC03H Intermediate Seminar
VPAA05H Senior Project

3. At least 1 full credit from:
A B level course in English chosen in consultation with the Program Supervisor
PHLB03H Philosophy of Art
VPAB06H Cultural Pluralism I

SPECIALIST IN ART AND CULTURE (STUDIO)
The Specialist in Art and Culture (Studio) requires the following courses:

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:
PHLB03H The Art of Thinking
VPAB03H Computers and the Arts
VPAB05H Cultural Theory
VPHC47H The Body: Theories and Representations, Part One
VPHC48H The Body: Theories and Representations, Part Two
VPAC03H Intermediate Seminar
VPAA05H Senior Project

3. At least 1 full credit from:
A B level course in English chosen in consultation with the Program Supervisor
PHLB03H Philosophy of Art
VPAB06H Cultural Pluralism I

VPA05H3 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.
This course is required for all first year students taking other courses in VPA

VPA03H3 Computers and the Arts I
An introduction to the use of computers in the visual and performing arts.
Demonstrations/tutorials will illustrate current standards and future possibilities in
the computerized handling of graphics and texts. Projects will allow opportunities for practical experience.
Prerequisite: Any 4 full credits

VPA05H3 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.
Exclusion: VPA104H
Prerequisite: any 4 full credits
Art History 305

VPAB650H3 Cultural Pluralism and the Arts
An introduction to changes occurring in the arts and culture in Canada as a consequence of the country's growing ethno-racial and cultural diversity.
Prerequisite: VPAB050Y or (ENGBO5Y), or permission of the Supervisor.

VPAB995H4 Dialogues in the Diaspora
The interplay among visual, performing and literary arts and experience of exile, diaspora, displacement and placemaking; how the nomadic, transitional nature of today's world influences contemporary artists' practices. Readings from art history, visual anthropology, cultural studies, ethnic studies and literary criticism.
Considerations of memory, autobiography, community and loneliness in relation to experiences of local Canadian artists.

VPAC030H3 Intermediate Seminar
An exploration of the connections between the arts and the tensions inherent in making those connections.

Art History
Because art is perceived through the eyes and other senses as well as through the intellect, art history courses use slides, films, videos, and direct viewing of art works in galleries and museums and in the cities. Although some of the courses reflect a traditional structuring of art history by time periods, instructors often use new methodologies to explain the work within these periods.

Art history courses at the A-level and B-level are normally open to all students. In addition to the practice in critical thinking and writing provided by all Humanities disciplines, these courses offer basic information about painting, sculpture, architecture, and other arts, and a chance to improve perceptual awareness.

The Art History Study Guide is available at:
http://www.arts.uwo.ca/ahsmundiv/VPAC/ArtHistory/studyguide/

MAJOR PROGRAM IN ART HISTORY
Supervisor of Studies: L. Carney (416-287-7171) Email: carney@arts.uwo.ca

Program Requirements
Students must complete seven full credits as follows:

1. At least 5 full credits in the Specialist in Art and Culture including one credit at the B-level.
2. One full credit in the series VPAB404H-VPAB505H.
3. One full credit in art history at the C- or D-level, chosen in consultation with the Supervisor.

VPAC404H3 Cultural Pluralism and the Arts II
An examination of best practices in the management of the arts in a pluralist society.
Prerequisite: VPAB04H or permission of the instructor.

VPAD050H3 Senior Project
This course allows for individual or collaborative projects at an advanced level. Students will be required to complete a project or series of works that reflect the research completed in VPAC030H.
Prerequisite: VPAC030H

VPAC424H3 Carolingian and Romanesque Art and Architecture
Major art historical movements of Europe from 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: FAH321H, FAH322H, (FABB64H), (VPAD42H), (VPAC424H)

VPAC446H3 Impressionism
Impressionist painting as a turning point in Western art, based on 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: FAH378H, (FABB64H), (VPAD44H)

VPAC447H African Africa Through the Photographic Lens
The centrality of photographic practice to African cultures and histories from the period of European imperialism, the rise of modernist "primitivism" and the birth of ethnology and anthropology to contemporary African artists living on the continent and abroad.
Prerequisite: None. Visual art studio students are encouraged to enrol.

VPAC610H3 Art, the Museum, and the Gallery
Art and the settings in which it is seen in cities today. Some classes will take place in Toronto museums and galleries, giving direct insight into current exhibition practices and into the ways that these practices, as well as the institutional settings themselves, affect viewers' experiences of art.
Exclusion: (VPAB51Y)
Prerequisite: One full-credit from:
(VPAA401H), (VPAA405H), (VPAA410H), (VPAA404H), (VPAA421H), (VPAA621H), (VPAA626H), (VPAA631H)

VPAC625H3 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; Classical painting and sculpture and their enormously influential techniques for creating illusions of the real world.
Exclusion: FAH206H, (VPAA421H), (VPAB521H)
Prerequisite: (VPAA401H) or (VPAA405H)
VPHB531H1 Medieval Art
The origins of European artistic traditions in the early Christian, Mediterranean world; how these traditions were influenced by classical, Byzantine, Moslem and pagan forms; how they developed as an entirely new form of artistic expression in the high Middle Ages; and how they led on to the Renaissance. Exclusion: EAR206H1, VPA4A4H1, VPA4A4BH1. Prerequisite: VPHA44H1, VPH4A4BH1 or VPHA4A4H1 recommended.

VPHB534H1 Renaissance and Baroque Art
A survey of architecture, painting, and sculpture from 1400 to 1770. The course will present important monuments, primarily from Italy and the Netherlands. Exclusion: EAR204H1, EAR207H1, VPA4A4H1, VPA4A4BH1. Exclusion: EAR204H1 (VPHB4A4H1).

VPHB558H1 Religion and the Arts I
This course explores Eastern religions and arts, with a specific focus on Hinduism and Buddhism in art from India, Pakistan, Sri Lanka and China. Investigation of context, use and symbolism, paralleled with the examination of rituals and beliefs. The classes will be held at the Royal Ontario Museum and at UTSC. Exclusion: EAR204H1, VPA4A4BH1. Exclusion: EAR204H1 (VPHB4A4H1).

VPHB558H1 Religion and the Arts II
How the arts give expression to spiritual belief and reflect the institutionalizing of those beliefs in religions around the world. Topics will normally be defined by a particular religious tradition and will vary from year to year; please see study guide for details. Exclusion: VPA4A5H1.

VPHB557H3 Women and Visual Art
Women artists of the last 150 years, their relationships to "mainstream" art, and the influences of feminism on the production and reception of art. Exclusion: VPS209H1, VPA5A7H1 Prerequisite: WSTA401H & WSTA502H or VPA4A4H1 or VPA4A4BH1 or VPA5A4H1 or VPHA4A4H1 or permission of the instructor.

VPHB534H3 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: EAR207H1, EAR208H1, VPHB4A7Y.

VPHB539H3 Modern into Post-Modern Art
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 the post-modern as artists' media, patterns of practice, and ideas about their relations to the public and to their institutional contexts changed. Exclusion: EAR208H1. Prerequisite: VPA4A4BH1.

VPHB600H3 Canadian Visual Art
What Canadian artists have made in the country's diverse cultural contexts, from 18th century churches of Quebec, designed and decorated by skilled family studios, to the Nairn's art and major twentieth century Anglo-Canadian and Quebecois painters. Exclusion: VPHB54H1, VPHB4A4H1, VPA4A4BH1. Exclusion: VPHB4A4H1.

VPHB614H3 Space, Place and the Arts
Artist Donald Judd 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 space and place and perspective in painting, performance, installation and other arts, and what these may communicate to us. Exclusion: VPHB621H1.

VPHB621H3 Art in the City
Art, architecture and design as made and seen in the modern city. This course focuses on visual arts made in times of industrialization, urbanization, mass migrations and global depressions and wars—all of which led to highly innovative expressions and the birth of mass culture.

VPHC421H3 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. Exclusion: EAR202H1, EAR203H1. Prerequisite: VPA4A4BH1, VPA4A4H1 (VPHC42Y).

VPHC439H3 Seminar in Twentieth-Century 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. Exclusion: VPA4C5H1. Prerequisite: One credit in modern art history at the B-level or permission of the instructor.

VPHC463H3 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. Exclusion: VPA4C4H1. Prerequisite: VPHB521H or VPHA521H or VPA4A4BH1 or permission of the instructor.

VPHC473H3 The Body: Theories and Representations, Part One
An interdisciplinary course about the body in art, film, photography, narrative and popular culture. How bodies are written or visualized as representing normality or perversion, 'feminine' or 'masculine', as heroic, as beauty or monstrosity, legitimacy or illegitimacy, nature or culture. Same as ENGC350H1. Limited enrolment 45. Exclusion: VPA4B0H1, ENGC350H1. Corequisite: Two full credits from ENG0B1H, ENG0B2H, ENG0B3H, ENG0B4H, ENG0B5H, ENG0B6H, ENG0B7H, WSTA401H, WSTA402H.

VPHC481H3 The Body: Theories and Representations, Part Two
A course focusing on the experience of the body in the public spaces of the modern city and in cyberspace. Special interest will be the viewpoints of artists, writers, and thinkers who explore how the 'other' is constructed in terms of class, culture, and ethnicity. Same as ENGC377H1. Limited enrolment 45. Exclusion: ENGC377H1. Corequisite: Two full credits from ENG0B1H, ENG0B2H, ENG0B3H, ENG0B4H, ENG0B5H, ENG0B6H, ENG0B7H, WSTA401H, WSTA402H.

VPHC489H3 Theories of Visual Art
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 outcomes of individual actions. Corequisite: Two credits at the B-level in art history and/or studio, or permission of the instructor.

VPHC514H3 Word and Image
The interface between modern and contemporary art and the communicative power of languages, the written word and graphic systems. By examining long-standing, cross-cultural links between the verbal and the visual, we will consider how artists combine narrative content and graphic designs of letters, words and conventional and invented inscriptions. Prerequisite: VPHB401H or VPHB534H1 or permission of instructor.
Program Requirements

Work Terms

- Two full credits from the artistic field
- VPA101H1 Introduction to Arts Management
- VPA121H1 Marketing and Communications in the Arts and Cultural Sector
- VPA141H1 Fundraising and Resource Development in the Arts and Cultural Sector
- MGTA01H1 Introduction to Management I
- MGTA04H1 Introduction to Management II

Students must also have completed the Introduction to Arts Management Work Prep Course.

Course Requirements

Students complete six full credits in (A) the arts management core program, three full credits in (B) the management field, six full credits from (C) the artistic field, and a further five full credits from (D) the elective field, chosen in conjunction with the Supervisor of Studies. Consultation with the Supervisor of Studies is strongly encouraged for all students in each year of their program.

1. Arts Management Core Program

Students must complete six full credits as follows:

- The following five full credits:
  - VPA106H1 Introduction to Arts Management
  - NMEA20H1 Introduction to New Media in the Humanities and Social Sciences
  - VPA803H3 Computers and the Arts I
  - CSCA02H3 The Why and How of Computing
  - VPA805H1 Introduction to Contemporary Cultural Theory
  - VPA806H4 Cultural Pluralism and the Arts I
  - VPA812H1 Marketing and Communications in the Arts and Cultural Sector
  - VPA813H1 Financial Management in the Arts and Cultural Sector
  - VPA814H1 Fundraising and Resource Development in the Arts and Cultural Sector
  - VPA813H1 Planning and Project Management in the Arts and Cultural Sector
  - VPA815H1 Cultural Policy
  - VPA812H1 Seminar in Arts Management

- One additional full credit from the following list:
  - VPA814H1 Cultural Pluralism and the Arts II
  - VPA816H1 Legal and Human Resource Issues in Arts Management
  - VPA815H1 Art, Culture, and Policy
  - VPA814H1 Independent Studies in Arts Management

2. Management Field of Study

The following three full credits are required:
- MGTA03H1 Introduction to Management I
- MGTA04H1 Introduction to Management II
- MGTD23H1 Managing People in Organizations
- MGTD29H1 Managing Groups and Organizations

Plus one additional full credit from Management or Economics

3. Artistic Field of Study

Six full credits (in addition to courses listed in the Arts Management Core Program) from Art History, Drama, Music, or Studio. These courses should follow the
requirements established for the Major program in the chosen artistic field. Students have the option of completing the Major program in their chosen artistic field (seven full credits) by taking one additional full credit from the Elective Field of Study described below. The completion of the Major program (and further concentration of elective courses) in the chosen artistic field is particularly valuable for students contemplating graduate study. Students electing to complete the Major should do so in consultation with the Supervisor of Studies in Arts Management and the chosen artistic field.

e) Elective Field of Study

A further five full credits - or four, for those students choosing to complete the Major program in their artistic field - chosen in consultation with the Supervisor of Studies. The purpose of the elective field is to allow students some flexibility in shaping a degree to their interests and future needs and providing for a more broad-based liberal education.

Courses in the first two years of the program

The first year of study would normally consist of VPA101H, VPA121H or VPA141H, one FCE from the artistic field (including VPA601, MGT403H and MGT404H, perhaps NMEA201 or CSSA202H), and further courses in the artistic management field and/or electives. Students will also normally take the Work Prep Course in the fall semester.

The second year of study would normally consist of five full credits to include VPA602H, VPA606H, VPA121H or VPA141H, VPA603H or NMEA201 or CSSA202H (if not taken in the first year), and a balanced mixture of management, artistic and elective courses.

VPA101H3 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.

Exclusion: (VPA101Y)

VPA121H3 Marketing and Communications in the Arts and Cultural Sector

This course facilitates an 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. Topics will include segmentation, branding, market research, promotion, media relations and community outreach.

Exclusion: (VPA101Y) (VPA111H)

Prerequisite: VPA101H

VPA121H3 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.

Exclusions: (MGT102Y), MGT103H

Prerequisites: VPA101H & [(VPA111H or VPA121H) or VPA141H]

VPA141H3 Fundraising and Resource Development in the Arts and Cultural Sector

This course provides an overview of practical skills and knowledge required by arts managers in the area of raising and developing required resources. Topics will include donor and sponsor development, grant writing, direct mail requests, and the integration of fundraising with marketing, planning, and human resource development.

Exclusion: (VPA101Y) (VPA111H)

Prerequisite: VPA101H

VPA130H3 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: VPA101H & VPA121H & VPA141H

VPA151H3 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 sector, and exploring the strengths and weaknesses of particular policy approaches.

Exclusion: (VPC10Y)

Prerequisite: VPA105H

VPA153H3 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 and censorship, artist and cultural worker contract negotiation and administration, employment law, labour relations and collective bargaining, advocacy, and Health and Safety issues in the performing arts, gallery and museum environments.

Limited enrolment: 30

Prerequisite: One B-level course in Arts Management.

VPA161H3 Senior Seminar in Arts Management

A synthesis of students' prior academic studies and cooperative work experience as they prepare to enter the world of arts management. Students will lead an academic class discussion on an important arts-management-related topic and will actively participate in a major arts management project.

Exclusion: (VPA110Y)

Prerequisite: VPA131H or, preferably, two work terms (COPP101H)

VPA163H3 Art, Culture, and Policy

An exploration of current theoretical issues in cultural policy and arts management, enabling students to synthesize and develop their prior knowledge of cultural theory and cultural policy. Adapting a case study approach, the course will examine issues and controversies in both the performing and the visual arts.

Exclusion: (VPA110Y)

Prerequisite: VPA131H

VPA143H3 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.

Limited enrolment: 6

Exclusion: MGT102H

Prerequisite: At least 1 FCE in Arts Management at the C-level. Written consent and approval of the topic must be obtained from the supervising instructor by the last date of classes in the previous academic session.
Drama

The Drama Program has been devised to serve students who intend to major or minor in Drama, students who intend to specialize in Visual and Performing Arts, and students who have a casual interest in drama and theatre.

We offer two types of courses that complement each other: theoretical and practical. The theoretical courses are in the history of theatre and in special aspects of theatre history and theory. In the practical courses, students become acquainted with all aspects of theatre production in studio situations, both as actors and as technicians. Admission into the practical side of the program is by interview.

Participation in public productions at UTSC is strongly encouraged. The Drama Study Guide is available at:
http://www.utsc.utoronto.ca/%7ehumilo/VPA/Drama/studyguide/

MAJOR PROGRAM IN DRAMA
Supervisor of Studies: M. Schenber (416-287-7165) Email: schenber@utsc.utoronto.ca

Program Requirements
Students must complete seven full credits as follows:

1. VPA048H Collaborations in the Visual and Performing Arts
2. VPD101H Introduction to Performance I
3. VPD102H Intermediate Workshop in Performance I
4. VPD102H Intermediate Workshop in Performance II
5. VPD103H Studies in Theatre History I: From the Greeks to 1642
6. VPD111H Studies in Theatre History II: From 1642 to World War One
7. VPD125H Studies in Modern and Contemporary Theatre
   [VDP013H Theatre in Canada
   or
   VPD144H] Introduction to Asian Theatrical Traditions
8. ENGC27H Drama: Tragedy

5. 1.5 additional credits in VPA, 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:

VPA095H Repertoire Choir I
VPS076H Electronic Media
VSP077H Performance Art
VPB073H Music for the Theatre
ENGB03H Introduction to Shakespeare
ENGC108H Studies in Shakespeare
ENGC109H Drama 1870-1960
ENGC138H Drama after 1960
ENGC48H Restoration and Eighteenth-Century Theatre, Spectacle, and Drama
VPHC47H The Body: Theories and Representations Part One
VPHC47H The Body: Theories and Representations Part Two

6. 1.5 additional credits in Drama, one full credit of which must be at the C- or D-level.

VPA048H Collaborations in the Visual and Performing Arts
VPA061H Introduction to Performance I
VPA062H Intermediate Workshop in Performance I
VPA062H Intermediate Workshop in Performance II
VPA063H Studies in Theatre History I: From the Greeks to 1642
VPA061H Studies in Theatre History II: From 1642 to World War One
VPA062H Studies in Modern and Contemporary Theatre
VPA063H Theatre in Canada
or
VPA044H Introduction to Asian Theatrical Traditions

ENGCC27H Drama: Comedy

7. A continuation of VPD102H, with an emphasis on more advanced performance techniques.

Exclusion: (VPA31Y)
Prerequisite: [VPA063H or (VPA31Y)] and permission of the instructor

VPA032H3 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: (VPA31Y)
Prerequisite: (VPA31Y)

VPA031H3 Intermediate Workshop in Performance I

A continuation of VPD103H, with an emphasis on the fundamentals of characterization and interpretation of text.

While continuing with exercises and improvisations, students will also begin to work on scenes, learning to analyze text and subtext and to develop a character by exploring motivation, defining objectives and establishing physical action.

Exclusion: (VPA063H)
Prerequisite: VPD103H and permission of the instructor

VPA093H3 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.

Exclusion: (VPA31Y)
Prerequisite: (VPA063H) or (VPA063H) & permission of the UTSC VPA-Drama Program Teaching Staff

VPA093H3 Intermediate Workshop in Performance I

A continuation of VPD102H, with an emphasis on more advanced performance techniques.

Exclusion: (VPA31Y)
Prerequisite: (VPA31Y)
VPDB14H3 Special Topics in Theatre I
Special topics for intensive practical and/or theoretical 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 - Drama website.
Limited enrollment: 12.
Prerequisite: Any 4 full credits in Drama or permission of the Supervisor of Studies.

VPDC46H3 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 UTSC.
Exclusion: (VPAD11H4 or VPAC31H3)
Prerequisite: permission of the UTSC VPA-Drama Teaching Staff

VPDE26H3
VPDE26H3
VPDE26H3
VPDE26H3 Supervised Studies in Drama
Advanced scholarly projects open to upper-level Drama students.
The emphasis in these courses will be on advanced individual projects exploring specific areas of theatre history and/or dramatic literature.
Exclusion: (VPAD20H4 or VPAD23H4)
Prerequisite: one full credit in Drama at the C-level and/or permission of the Supervisor of Studies.

Music
The Music curriculum is designed for students who want to major or minor in Music or specialize in the Visual and Performing Arts, or for those whose interests are more general and who want to increase their experience and appreciation of music. Students who have taken music at high school or elsewhere will find a selection of historical, theoretical, and practical courses that study music from different historical periods and within different societal and cultural contexts. Students with no previous background can begin musical studies here by taking introductory and listening courses for which no previous musical experience is required. All students are invited to take advantage of the various opportunities that exist for practical music making, particularly the series of Performance courses.
The Music Study Guide is available at:

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 B-340 Music Studio and on the web Study Guides. Credit students should register for the course, but will be admitted only upon successful completion of the interview/audition.
VPMA70H1 Concert Choir I
VPMA71H1 Concert Choir II
VPMA65H1 Concert Band I
VPMA65H1 Repertoire Choir I
VPMB60H1 Concert Choir III
VPMB71H1 Concert Choir II
VPMB82H1 Concert Band II
VPMB95H1 Repertoire Choir II
VPMC70H1 Concert Choir IIIC
VPMC71H1 Concert Choir IIB
VPMC92H2 Concert Band III

General Interest Courses
Listening to Music, Music of World’s Peoples, Music for the Theatre, Jazz, Popular Music, Film Music, and the Repertoire Choir assumes no previous experience in music. In addition to Music of the World’s Peoples, another half credit from this list can be used towards the Major Program. (with the exception of Listening to Music).

Major and Minor Program Courses
Students are required to take three of the four B-level courses, VPMB86H1-VPMB89H1 “Topics in Music and Society,” which cycle frequently during the three academic sessions.
C-level Composer, Genres or special topic courses are offered during the F and W sessions only. Two are normally offered each year on a three-year rotational cycle.
A-level and C-level Materials of Music courses are normally offered in the Fall session only; B-level Materials is normally offered in the Winter session.

MAJOR PROGRAM IN MUSIC AND CULTURE
Supervisor of Studies: C. Clark (416-287-7194) Email: cclark@chass.utoronto.ca

Program Requirements
Students are required to complete seven full credits as follows:
1. VPMA69H1 Collaborations in the Visual and Performing Arts
2. VPMA88H1 Materials of Music I
3. VPMA99H1 Music of the World’s Peoples
4. One and one-half credits from the sequence VPMB86H1 to VPMB89H1.
5. A half credit from any Visual and Performing Arts B-level course list, with the exception of Music Performance courses.
6. One and one-half credits from VPMB81H1 to VPMB81H1 and VPMD81H1.
7. One full credit in Performance.

MINOR PROGRAM IN MUSIC HISTORY
Supervisor of Studies: C. Clark (416-287-7194) Email: cclark@chass.utoronto.ca

Program Requirements
Students are required to complete four full credits as follows:
1. VPMA69H1 Collaborations in the Visual and Performing Arts
2. VPMA88H1 Materials of Music I
3. VPMA99H1 Music of the World’s Peoples
4. One and one-half credits from the sequence VPMB86H1 to VPMB89H1.
5. A half credit in VPMB at the C-level.

VPMA70H1 Concert Choir I
The practical study of a wide range of music from the choral repertoire, including performance in the UTSC Concert Choir, a chamber choir that performs repertory from the Renaissance to the present day. Audition/interview required.
Exclusion: (VPMA91H1), (VPMA94H1), (VPMA95H1)

VPMA71H1 Concert Choir II
A continuation of VPMA70H1.
Exclusion: (VPMA91H1), (VPMA94H1), (VPMA95H1)
Pre requisite: VPMA70H1

VPMA80H1 Introduction to Music
A study of the basic materials, principles of design, and cultural significance of Western Music from the Middle Ages to the present day. It assumes an elementary knowledge of Western art music to the level VPMA93H1 (Listening to Music) and prepares students for further studies in music at the University level.
Exclusion: (VPMA91H1)
Pre requisite: VPMA70H1 or (VPMA93H1) or equivalent

VPMA89H1 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.
Exclusion: (VPMA91H1)
Pre requisite: Royal Conservatory Grade II (music rudiments) or equivalent.

VPMA92H1 Concert Band I
The practical study of ensemble performance.
Exclusion: (VPMA92H1)

VPMA93H1 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: (MUS100Y1), (VPMA95H1)

VPMA95H1 Repertoire Choir I
A practical study of music from the choral repertoire and an introduction to music theory.
Exclusion: (VPMA91H1), (VPMA94H1), (VPMA95H1)

VPMA96H1 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), (VPMA91H1)

VPMB70H1 Concert Choir IIa
A continuation of VPMA71H1.
Exclusion: (VPMB91H1), (VPMB94H1), (VPMB95H1)
Pre requisite: VPMA71H1 or (VPMA93H1) or (VPMA95H1)

VPMB71H1 Concert Choir IIb
A continuation of VPMB70H1.
Exclusion: (VPMB91H1), (VPMB94H1), (VPMB95H1)
Pre requisite: VPMB70H1

VPMB78H1 Piano Roles
A socio-cultural history of the piano. This course examines the invention of the early fortepiano and subsequent developments, its changing roles and gendered associations during its 300-year history, its repertoire and performances, its representation in the visual arts, and the accelerating force of the instrument in non-Western cultures.
Limited enrolment: 40
Pre requisite: VPMA80H1 or (VPMA88H1) or permission of instructor.

VPMB77H1 Music in Religion and Ritual
An examination of the role of music in the context 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.
No previous musical experience required.
VPM87/3H3 Ballinese Gamelan: Performance and Context
An introduction to the repertory and performance of Ballinese Gamelan. Combines practical music-making and academic study. Students will learn to play the Ballinese Gamelan - an orchestral ensemble of bronze percussion instruments - and examine the integral function of gamelan in Balinese cultural, ceremonial, and religious life. No previous musical experience is necessary.
Exclusion: (MUS/81HH) Prerequisite: VPA/A00H (VPA/A00H)

VPM86/3H3 Topics in Music and Society before 1800
Selected topics in music and society up to 1800. Uses a thematic rather than a chronological approach to understand the historical, social, cultural, and political contexts of music-making in the Middle Ages and Renaissance with an emphasis on how the music is interpreted today. Limited enrolments: 40
Exclusion: (VPA/A00H) Prerequisite: VPA/A00H (VPA/A00H) & VPA/A00H (VPA/A00H)

VPM89/3H3 Topics in Music and Society from 1600-1900
Selected topics in music and society from 1600 to 1900. Uses a thematic rather than a chronological approach to understand the historical, social, cultural, and political contexts of music-making in the Baroque, Classical and Romantic eras, with an emphasis on how the music is interpreted today. Past topics include "Musical Borrowing."
Exclusion: (VPA/A00H) Prerequisite: VPA/A00H (VPA/A00H) & VPA/A00H (VPA/A00H)

VPM85/4H3 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.
Exclusion: (MUS/81HH) Prerequisite: VPA/A00H (VPA/A00H) & VPA/A00H (VPA/A00H)

VPM89/3H3 Repertory Choir II
A continuation of VPM89/3H3. Exclusion: (VPA/A00H), (VPA/A00H)
Prerequisite: VPA/A00H (VPA/A00H)

VPM89/3H3 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.
Exclusion: (VPA/A00H)

VPM89/3H3 Film Music
An introduction to the techniques and history of music for films. 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.
Prerequisite: VPA/A00H

VPM89/3H3 Popular Music in a Cross-Cultural Context
Popular music in a multi-cultural world. Development of popular music in a global context. Topics include mass media (recordings, films, radio, etc.), urbanization, social and political issues, pop icons, dance and cultural migration.
Prerequisite: VPA/A00H (VPA/A00H)

VPM87/3H3 Concert Choir III
A continuation of VPM87/3H3.
Exclusion: (VPA/A00H), (VPA/A00H), (VPA/A00H)
Prerequisite: VPA/A00H (VPA/A00H)

VPM87/3H3 Concert Choir III
A continuation of VPM87/3H3.
Exclusion: (VPA/A00H), (VPA/A00H), (VPA/A00H)
Prerequisite: VPA/A00H (VPA/A00H)
studied in Materials of Music I and II. Students will be encouraged to develop their individual musical styles and to create original works.
Exclusion: (VPAC90H)
Prerequisite: (VPAB09H) or (VPAB90H)

VPMC32H3 Concert Band III
A continuation of VPMB30H. Exclusion: (VPAC90H)
Prerequisite: (VPMB92H) or (VPAB92H)

VPMD28H3
A directed reading and writing course for students who have demonstrated a high level of academic maturity and competence.
Students must obtain consent from the supervising instructor before registration.
Exclusion: (VPAD68H), (VPAD68Y), (VPAD68W), (VPMD28H)
Prerequisite: At least two full credits in music at the B- and C-level; permission of the instructor to be obtained by the last date of classes in the previous session

VPMD36H3 Materials of Music III
Introduction to musical composition through the application of techniques.

Program Requirements
Students must complete seven full credits from Studio including:
1. VPAA05H Collaborations in the Visual and Performing Arts
   VPSA02H Foundation Studies in Studio
2. VPSB70H Drawing I
   VPSB71H Drawing II
3. At least one-half credit from:
   VPSB61H Sculpture Concepts
   VPSG60H Theory and Practice: Two-Dimensional Work
   VPSG67H Theory and Practice: Three-Dimensional Work
   VPSG69H Theory and Practice: Time-Based Media
   4. One full credit at the D-level.
5. 3.5 further credits from courses in VPS. Students may substitute 1 full credit from VPA or another discipline with the written permission of the Program Supervisor.

MINOR PROGRAM IN STUDIO
Supervisor of Studies: T. Mars (416-287-7137) Email: marx@utsc.utoronto.ca

Program Requirements
Students are required to complete a total of four full credits in Studio. The four credits will be made up as follows:
1. VPAA05H Collaborations in the Visual and Performing Arts
   VPSA02H Foundation Studies in Studio
2. VPSB70H Drawing I
   3. One-half credit from:
      VPSB63H Sculpture Concepts
      VPSG60H Theory and Practice: Two-Dimensional Work
      VPSG67H Theory and Practice: Three-Dimensional Work
      VPSG69H Theory and Practice: Time-Based Media
      4. Two full credits, one at the C- or D-level, in the chosen area of study.

VPSA22H3 Foundation Studies in Studio
An introduction to the importance of content and context in the making of contemporary art.
Limited enrolment: 20 per section
Exclusion: VISI35H (VPAA60Y), (VPAA62H)
Corequisite: (VPAA05H)

VPSB15H3 Painting I
An investigation of the basic elements and concepts of painting through experimentation in scale and content.
Limited enrolment: 20
Exclusion: (VPSB10H), (VPAB75Y), (VPAS10H)
Prerequisite: (VPAB09H) or (VPAA62H)
Corequisite: (VPSB10H) or (VPAB75Y)

VPSB26H3 Painting II
A continuation of Painting I with an emphasis on images and concepts developed by individual students.
Limited enrolment: 25
Exclusion: (VPSB10H), (VPA248H), (VPAB76H), (VPAB77H), (VPAB78H)
Prerequisite: (VPAS10H) or (VPAB62H)
Corequisite: (VPAB62H) or (VPAB71H)

VPSB315H3 Sculpture Concepts
An investigation of the changes in sculpture in the 20th century with an emphasis on contemporary art.
Limited enrolment: 15
Exclusion: (VPAB60Y), (VPAB63H), (VPAS10H)
Prerequisite: (VPAA62H) or (VPAB62H) or permission of the instructor
VP5B6H3 Site-Specific Work
An exploration of the object and its relationship to specific space.
Limited enrollment: 20
Exclusion: VP5A06H or VP5A09H
Prerequisite: VP5A62H or (VPAA62H or VPAA69H)

VP5B7H3 Drawing I
An investigation of the various approaches to drawing, including working from the figure and working with ideas.
Limited enrollment: 20
Exclusion: VP5A05H, (VPAA65H or VPAA67H or VPAA69H)
Prerequisite: VP5A62H or VPAA62H or (VPAA65H or VPAA69H)

VP5B7H3 Books and Multiples
An exploration of the history and use of handmade books and multiples by visual artists.
Limited enrollment: 20
Prerequisite: VP5A62H or (VPAA69H or VPAA65H or VPAA67H)

VP5B7H3 Computers and the Arts II
A continuation of VP5B9H3 with an increased emphasis on the use of the computer in the visual arts.
Limited enrollment: 15
Exclusion: VP5A73H
Prerequisite: VP5A93H and permission of the instructor

VP5B7H4 Drawing II
A continuation of VP5B7H3 with an increased emphasis on the student’s ability to expand her/his personal understanding of the meaning of drawing.
Limited enrollment: 20
Exclusion: VP5A21H, (VPAA74H or VPAA75H)
Prerequisite: VP5A67H or (VPAA67H or VPAA74H or VPAA75H)

VP5B7H3 Electronic Media
An exploration of the possibilities of electronic media in the visual arts.
Exclusion: (VPAA61H)
Prerequisite: VP5A62H or (VPAA66H or VPAA69H)

VP5B7H3 Performance Art
An exploration of both the history and practice of performance art.
Limited enrollment: 15
Exclusion: VP5B9H3, (VPAA65H or VPAA67H) or (VPAA69H)
Prerequisite: VP5A62H or VPAA62H or (VPAA65H or VPAA67H)

VP5B7H3 Introduction to Lithography
An introduction to black and white stone lithography including a detailed investigation of materials and techniques.
Limited enrollment: 10
Exclusion: VP5A73H
Prerequisite: VP5A62H or VPAA62H or (VPAA65H or VPAA67H)

VP5B7H3 Intermediate Lithography
A continuation of VP5B7H3 with emphasis on multi-colour printing.
Limited enrollment: 10
Exclusion: VP5A73H
Prerequisite: VP5B7H3 or VPAA73H & permission of the instructor

VPSC6H3 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.
Limited enrollment: 20
Exclusion: VP5A36H
Prerequisite: VP5B7H3, VP5B7H4 and one other course at the B-level in VPS

VP5C6H3 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 three choice of media with the prior written permission of the instructor.
Limited enrollment: 20
Exclusion: VP5A11H
Prerequisite: At least one course at the B-level in VPS in the stated area of study and 3 full credits in VPS and permission of the instructor.

VPSC6H3 Theory and Practice: Two-Dimensional Work
An exploration of ideas and practice with an emphasis on two-dimensional work, including digital imaging.
Exclusion: (VPAC60H)
Prerequisite: at least 0.5 credit in a B-level course dealing primarily with two dimensions.

VPSC6H3 Theory and Practice: Three-Dimensional Work
An exploration of ideas and practice with an emphasis on three-dimensional work.
Exclusion: (VPAC60H)
Prerequisite: at least 0.5 credit in a B-level course dealing primarily with three dimensions.

VPSC6H3 Theory and Practice: Time-Based Media
An exploration of ideas and practice with an emphasis on time-based media: performance, video, audio, digital technologies and installation.
Limited enrollment: 15
Exclusion: VP5A02H
Prerequisite: 1.5 FECs at the B-level in VPS & (VP5B7H3 or VP5B7H4) & permission of the instructor

VP5D5H3 Advanced Special Topics in Studio
Selected topics for intensive practical and theoretical study in studio. Topics will change from session to session.
Limited enrollment: 20
Exclusion: VP5A01H, VP5A02H, VP5A03H & VP5A04H
Prerequisite: 1 FEC from VPSC6H1, VPSC6H2, VPSC6H3 & VPSC6H3 & permission of instructor

VP5D5H3 Advanced Studio Practice
An advanced course for students ready to work on their own projects. Students will be expected to work on their projects from conception to a final exhibition in the student-run gallery.
Students may work in their choice of media with the written permission of the instructor.
Limited enrollment: 20
Exclusion: VP5A40H, VP5A42H, VP5A43H, VP5A44H
Prerequisite: VP5C6H3 & VP5C6H3 or VP5C6H3 or VP5C6H3

VP5D5H3 Advanced Interdisciplinary Practice
An opportunity for students in VPS to explore aspects of contemporary intermedia practice and theory. Students will make their work in their choice of media with the written permission of the instructor.
Limited enrollment: 20
Exclusion: VP5A40H, VP5A42H, VP5A43H, VP5A44H
Prerequisite: 1.5 FECs at the B-level in VPS & (VP5B7H3 or VP5B7H4) & permission of instructor.

VP5D6H3

VP5D6H3

VP5D6H3

VP5D6H3

Women’s Studies (B.A.)
Faculty List
C. Bentrand-Jennings, L. c. L. (Paris), Ph.D. (Wayne State), Professor Emeritus
A. S. Crain, B. A., M. A. (Windsor), Ph.D. (York, Canada), Professor
L. C. Meay, M. A. (Colombia), Associate Professor
C. Clark, M. A. (McGill), Ph.D. (Cambridge), Associate Professor

Women’s Studies 323

VP5D5H3 Advanced Studio Practice
An advanced course for students ready to work on their own projects. Students will be expected to work on their projects from conception to a final exhibition in the student-run gallery. Students may work in their choice of media with the written permission of the instructor.
Limited enrollment: 20
Exclusion: VP5A40H, VP5A42H, VP5A43H, VP5A44H
Prerequisite: VP5C6H3 & VP5C6H3 or VP5C6H3 or VP5C6H3

VP5D5H3 Advanced Interdisciplinary Practice
An opportunity for students in VPS to explore aspects of contemporary intermedia practice and theory. Students will make their work in their choice of media with the written permission of the instructor.
Limited enrollment: 20
Exclusion: VP5A40H, VP5A42H, VP5A43H, VP5A44H
Prerequisite: 1.5 FECs at the B-level in VPS & (VP5B7H3 or VP5B7H4) & permission of instructor.

Women’s Studies (B.A.)
Faculty List
C. Bentrand-Jennings, L. c. L. (Paris), Ph.D. (Wayne State), Professor Emeritus
A. S. Crain, B. A., M. A. (Windsor), Ph.D. (York, Canada), Professor
L. C. Meay, M. A. (Colombia), Associate Professor
C. Clark, M. A. (McGill), Ph.D. (Cambridge), Associate Professor
Women's Studies examines women's roles, women's work, and women's contributions past and present to society. Because men have been more dominant, the bulk of past scholarship has reflected a male perspective on the world and has focused on the activities and experiences of men. Women's Studies seeks to redress this by providing new perspectives on women's activities and experiences. These perspectives are interdisciplinary in nature, drawing on work in such areas as Anthropology, Literature, Visual and Performing Arts, Geography, History, Linguistics, Philosophy, Psychology, Sociology, Environmental Science and International Development Studies. Women's Studies is thus concerned with such issues as women's work and women's role in the family in different times and different societies; the development, transmission and perpetuation of ideas and attitudes about women; women's contributions to culture; and the particular concerns and problems of women today. Emphasis is placed on the diversity of women's lives around the world, particularly as these are shaped by race, ethnicity, class, age, sexual orientation, and disability. Women's Studies at UTSC puts special focus on women as members of different communities, such as ethno-cultural communities and neighbourhood communities in Canada and around the world, and an important aim of the Major and Minor Programs is to provide students with practical skills for working on women's issues on the community level. Students preparing for a career in research, teaching, administration, government, law, journalism or social work are encouraged to consider enroling in a Women's Studies program, since these careers involve consideration of equity issues and often involve work on the community level, a background in Women's Studies would be a definite asset. The Women's Studies Study Guide is available at: http://www.utsc.utoronto.ca/~788/Themes/Womens_Studies/studyguide/index.htm

MAJOR PROGRAM IN WOMEN'S STUDIES
Supervisor of Studies: L. Carney (416-287-7111) Email: carney@utsc.utoronto.ca

Program Requirements
Students must select seven full credits as follows:
1. WSTA01H Introduction to Women's Studies and WSTA02H Women: Initiatives for Change
2. WSTB05H Current Research on Women's Issues
3. WSTB11H Class and Gender
4. WSTD01H Senior Project in Women's Studies

5. One further credit in WST
6. 3.5 credits from the list below (students should check course descriptions for prerequisites):
   - ANTC11F Feminism and Anthropology
   - ANTC11G Gender and Socialization
   - ANTD01H The Body in Culture and Society
   - ENGB31H Gender and Genre
   - ENGB35H Alice Munro
   - ENGB37H Women Travellers before 1830
   - ENGB38H Women and Canadian Writing
   - HIST45H Immigrants and Race Relations in Canadian History
   - HIST46H Selected Topics in Canadian Women's History
   - HLTCD01H Women and Health: Past and Present
   - LINC209 Language and Gender
   - PHIL214H Philosophy and Feminism
   - POLC76H Women in Political and Social Thought I
   - POLC77H Women in Political and Social Thought II
   - PSYD10H Psychology of Gender
   - PSYD22H Socialization Processes
   - SOC349H Family and Society
   - SOC494H Family in Transition
   - SOC50H Gender and Information Technology
   - SOC510H Sociology of Gender and Work
   - SOC511H Gendered Subjects, Gendered Lives and Inequalities
   - SOC524H Changing Family Life in Canada
   - SOC525H Cross-Cultural Family Forms
   - SOC531H Gender and the Sociology of Higher Education
   - VPPH47H The Body: Theories and Representations, Part One
   - VPPH47H The Body: Theories and Representations, Part Two

Note: Not all courses in # are offered every year.

MINOR PROGRAM IN WOMEN'S STUDIES
Supervisor of Studies: L. Carney (416-287-7111) Email: carney@utsc.utoronto.ca

Program Requirements
Students must select four full credits as follows:
1. WSTA01H Introduction to Women's Studies and WSTA02H Women: Initiatives for Change
2. WSTB05H Current Research on Women's Issues
3. One further credit in WST
4. Two further credits from Women’s Studies or from the list of courses in other disciplines which deal with women's/gender issues provided in # in the Major Program; at least one of these credits must be at the C- or D-level.
Women's Studies

WSTA171H3 Introduction to Women's 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: WSTA01Y, NEW160Y

WSTA283H3 Women: Initiatives for Change
An examination of local and global movements for change, past and current, which address issues concerning women. Working from the base provided in WSTA01H, this course will survey initiatives from the individual to the international level to bring about change for women within the family, the workplace, and the community. Exclusion: WSTA01Y, NEW160Y
Prerequisite: WSTA01H or permission of the instructor

WSTB050H3 Current Research on Women's Issues
An examination of topical and critical research in women's issues from a cross-cultural and interdisciplinary perspective.
This course will provide practical 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: WSTA01H & WSTA02H or (WSTA01Y) or permission of the instructor

WSTB101H3 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. Exclusion: WSTA01Y
Prerequisite: WSTA01H & WSTA02H or (WSTA01Y) or permission of the instructor

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 maternal leave, sexual harassment, family benefits, divorce, and human rights policies. Prerequisite: WSTA01H & WSTA02H or (WSTA01Y) or permission of the instructor

WSTC243H3 Women and Environment
How women's lives have been shaped by the environments in which they live, and how women have changed those environments.
Topics will include: the idea of nature as female; the impact of mechanization and industrial change on women; environmental ethics, eco-feminism; women and globally sustainable development; struggles for safer environments. Prerequisite: Two full credits in WST, or permission of the instructor

WSTC303H3 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: WSTA01H & WSTA02H or (WSTA01Y) or permission of the instructor

WSTC313H3 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: WSTA01H & WSTA02H or (WSTA01Y) or permission of the instructor
Admissions

Re-enrolling University of Toronto at Scarborough (UTSC) Students

Students who previously registered at UTSC 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 web site: www.utscautoronto.ca/Registrar. Students who studied elsewhere during their absence from UTSC should re-enroll well before the final deadline since we need 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:

- April 1 for the Summer Session
- June 17 for the Fall Session
- June 17 for the Winter Session

Applications to re-enroll will not be considered if received after:
- May 6 for the Summer Session
- September 9 for the Fall Session
- December 21 for the Winter Session

Students who have a four-year degree conferred normally continue as Non-Degree Students. UTSC students who wish to start a second degree must apply, in writing, to the Assistant Registrar—Admissions by April 1. For further information on re-enrollment, telephone 416-287-7001. See also the Overall Standing section of this Calendar.

Admissions

The following is a brief description of admission policies and procedures. Full information may be obtained from:

Admissions and Awards
University of Toronto
315 Bloor Street West
Toronto, Ontario, Canada M5S 1A3
Telephone: 416-978-2190
Website: www.adm.utoronto.ca

Admissions and Student Recruitment
University of Toronto at Scarborough
1265 Military Trail
Toronto, Ontario, Canada M1C 1A4
Telephone: 416-287-7529
Website: www.utscautoronto.ca/admissions

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 UTSC programs are submitted to the Ontario Universities Application Centre (OUAC) for initial processing. Students currently enrolled in a full-time Ontario secondary school submit a 101 application. Details are available at secondary school guidance offices. Other applicants seeking full-time degree studies (except internal UofT transfers) will apply using a 105 application that is available on-line at the Ontario Universities Application Centre at www.ousc.on.ca (telephone: 519-823-1949)

Internal UofT Transfer applications, Part-time Degree and Non-Degree off-line applications are available at the Admissions and Awards website: www.adm.utoronto.ca

Upon receiving the application from the OUAC, the University of Toronto's Admissions and Awards office sends the applicant a confirmation letter and 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: Cooperative Programs, Education of Teachers in French, the Early Teacher Project in the Mathematical & Physical Sciences, Joint Programs with Centennial College, Management Programs. Many of these programs require a supplementary application (to be downloaded from the UTSC website).

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.

2005 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

2005/2006 Fall/Winter Session Deadlines:
- Full-time degree study:
  - March 1 for 101 applications, for applicants who are currently enrolled full-time in an Ontario high school
  - April 1 for 105D 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
  - April 1 for Internal UofT degree applications, for applicants who have registered in other divisions of UofT
  - April 1 for 105F applications, for applicants who are residing within USA
  - May 1 for 105F applications, for international applicants who reside outside Canada/USA

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

Non-Degree Students in Management
For information and deadlines, see the Department of Management website at:
http://www.utscautoronto.ca/mgmt

General Admission Requirements to the University of Toronto at Scarborough for 2005-2006

Applicants from Ontario Secondary Schools Under 1989 OSSD Diploma (4 year) requirements
- 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 enroll.
- Applicants must satisfy English Facility Requirements

Applicants from Ontario Secondary Schools under 1989 OS/IS 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)’s
- One credit must be Grade 12 English Language Arts 40S
- Applicants must present credits to satisfy any prerequisites of specific courses or specific programs in which they intend to enroll.
- 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.utm.utoronto.ca/adm_other_req/adm_english_facility.htm
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 ENGUI English (or equivalent course). Such applicants are, however, encouraged to include English in their preparation 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 Paper-Based Test (TOEFL PBT) and the Test of Written English (TWE) or the TOEFL Computer-Based Test (TOEFL CBT).
   - Minimum requirement:
     - TOEFL PBT-total score of 600 and 5.0 on TWE.
     - TOEFL CBT-total score of 250 and 5.0 on Essay.
   - Michigan English Language Assessment Battery. The minimum requirement is an overall score of 85 with no part score below 60.
   - International English Language Testing System (IELTS). The minimum requirement is an overall band of 6.5, with no band below 6.0.
   - Certificate of Proficiency in English (COPE). The minimum requirement is an overall score of 5 with 2 in Writing and 1 or 2 in Reading and Listening.
   - Academic Preparation ESL Course completed at U of T; International ESL, School of Continuing Studies (http://acsu.utoronto.ca/conted/). The minimum requirement is a grade of B at the 600 or 400 (Advanced) level.
   - See the website (www.adm.utm.utoronto.ca/adm_other_req/adm_english_facility.htm) for other acceptable tests and requirements.

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 UTSC brochures, the UTSC website or consult with Admissions and Student Recruitment staff.

Examples:
- Management programs require MCB4U Advanced Functions and Introductory Calculus
- Computer Science programs require both MCB4U Advanced Functions and Introductory Calculus and MGQ4U Geometry and Discrete Mathematics
- Most science programs require MCB4U Advanced Functions and Introductory Calculus.
- Many science programs also require SCH4U Chemistry and SPH4U Physics.

Mathematics Preparation
For programs that require calculus, applicants must complete a course similar to the Ontario calculus course (MCB4U Advanced Functions and Introductory Calculus) that includes the following content: Concepts of advanced functions; introduces basic concepts of calculus; investigation and application of the properties of polynomial, exponential, and logarithmic functions; understanding of the mathematics associated with rates of change, development of facility with differential calculus as applied to polynomial, rational, exponential, and logarithmic functions; problem solving in a range of applications. If your secondary school does not offer a calculus course or Advanced Placement math in their curriculum, consult with Admissions and Student Recruitment staff. UTSC offers a non-credit course called Preparation for Calculus 1 in the Fall Session for non-Ontario students whose school does not offer calculus whose prior mathematics background is strong.

For programs that require algebra, applicants must complete a course similar to the Ontario algebra course (Geometry and Discrete Mathematics MGA4U) that includes the following content: Abstract mathematical topics and the solving of complex problems including geometric and Cartesian vectors, and intersections of lines and planes in three-space and counting techniques. Proving of results using mathematical induction. Development of an understanding of proofs using deductive, algebraic, vector, and indirect methods.

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 C.E.G.E.P. 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 at Scarborough will be required to complete at least half of their degree credits and half of their program requirements as University of Toronto at Scarborough studies. Students transferring from other divisions of the University of Toronto are exempt from this degree requirement. However, limits on transfer credit 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 credit equivalents 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 credit equivalents as transfer credit.

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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 may qualify for consideration by completing Grade 12 U/M courses (or equivalents).

Applicants from Centennial College who are applying for admission to a joint program at UTSC 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: http://www.utsc.utoronto.ca/jointprogs/

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 either Higher Level Mathematics or Math Methods with the Calculus option. Transfer credit is awarded for most higher level subjects completed with a grade of 5, 6 or 7. http://www.utsc.utoronto.ca/~admissions/pdf/IB2005.pdf

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 or ACT plus good results on three SAT II exams or AP exams (or combination thereof) will be considered. Transfer credit is awarded for several Advanced Placement tests with scores of 4 or 5. http://www.utsc.utoronto.ca/~admissions/pdf/AP2005.pdf

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 from overseas is contained in the International Undergraduate Admission Bulletin available from Admissions and Awards.

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 residents 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.wds.utoronto.ca or by contacting Woodsworth College (416-978-2415).

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: (a) 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.

Awards

Non-Degree Students
A Non-Degree Student is one who is taking courses at UTSC who is not proceeding towards a University of Toronto's 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 with valid Letters of Permission from other accredited North American universities may apply directly to UTSC 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.utsc.utoronto.ca/admissions

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; limited bursary assistance may be available. 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, teaching 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 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.

Promotion of minimum requirements does not guarantee acceptance. Because of limitation of space, 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 extracurricular circumstances. 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.

Awards

All UTSC undergraduate degree students with excellent academic standing are considered for awards. Awards that require an application are highlighted. Where deadlines are not specified, ask staff in the Financial Aid & Registrar’s Office, check the Awards bulletin board (located in the Meeting Place) and check the UTSC website for announcements. Some bulletin board awards are sent to current students by mail. The official award records are on file in the Financial Aid & Registrar’s Office. Students should also review the Financial Aid & Awards website at www.utsc.utoronto.ca/aid


A general condition for holding an entrance or in-course award is that the student must register at the University of Toronto at Scarborough in the following academic year with degree status. Students who have been awarded a scholarship, which is based on enrolment in a particular program of study, must continue in that program to receive the award. UTSC reserves the right to not award a scholarship, if, in a particular year, the academic achievement of the candidate is not
of high standard. For graduation awards, students who graduate at the fall convocation are considered for awards at the following spring convocation in competition with the spring graduates. Students who graduate with three-year degrees are not considered for in-course awards.

Ontario Student Opportunity Trust Fund Awards (OSOTF)
To qualify for consideration for awards listed below which are described as OSOTF awards, students must qualify for consideration for the Ontario Student Assistance Program (OSAP). Eligible candidates must be Canadian citizens or permanent residents and satisfy the Ontario Residency requirements as defined by OSAP.

Admission Awards
NOTE: The calendar is published in March. Check the Admissions and Student Recruitment website in September for updates to the scholarship program. www.utm.utoronto.ca/admissions UTSC allocates entrance scholarships to students entering first year directly from secondary school. A limited number of awards are also available to students transferring from other universities with outstanding academic achievement. For need-based awards, applicants must complete a University of Toronto Advance Planning for Students (UTAPS) application, which will be available on our website for all applicants who are Canadian citizens or permanent residents of Canada. 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.

The National Scholarship Program
The University of Toronto National Book Award Program is intended to recognize and reward the very best Canadian secondary school students, regardless of which university these students choose to attend. These are students who demonstrate superior academic performance, original and creative thought, and exceptional achievement in a broad context. Canadian schools are invited to nominate one student to receive the Book Award.

Students selected as National Book Award winners have the opportunity to submit applications to the National Scholarship Program. In addition, students who identify themselves as meeting the scholarship criteria are invited to apply directly for the National Scholarship. On the basis of application criteria, about 30 students are selected as finalists.

The finalists are invited to be the guests of the University during the selection interviews held in the spring. In 2006, the University expects to award approximately 15 National Scholarships.

The deadline for submission of Book Award nominations and National Scholarship applications is June 30 of the year preceding the intended year of university admission (e.g. June 30, 2005 for 2006 entry).

University of Toronto Scholarships Program
This program recognizes outstanding University of Toronto students in any first degree course, both on admission and during their course of study. Approximately 120 outstanding admission applicants are selected as University of Toronto Scholars. These awards have a value of $2,000 and may be used in any program of study at the University, in conjunction with admission awards that the students may receive from their faculty/college.

Awards under the University of Toronto Scholars Program are not renewable. Outstanding students, however, will be eligible for consideration for University of Toronto (in-course) Scholarships at the end of the first, second and third year of their programs. At UTSC, there are 15 of these awards at each level. These in-course awards are worth $1,500 and are tenable with other in-course scholarships.

Pumpatre Admission Scholarship
Awarded to the student entering first year whose achievement in secondary school is considered to be the most outstanding. The scholarship is awarded in memory of Professor A.F. Wyre Pumpatre, a former principal of UTSC.

Frederick A. Urquhart Admission Scholarships
Eight scholarships are awarded to students entering first year on the basis of exceptional academic achievement in secondary school. The scholarships are awarded in memory of Professor Emeritus F.A. Urquhart, a distinguished economist.

University of Toronto at Scarborough Admission Scholarships
Secondary school applicants with excellent standing are considered for merit-based scholarships. Some scholarships have a financial need component. To be considered for these awards, complete a UTAPS application.

University of Toronto at Scarborough Alumni Admission Awards
Awarded to students applying directly from secondary school who have demonstrated significant contribution to community service work and who have high academic achievement.

Application required-go to www.utm.utoronto.ca/admissions to download the forms or call 416-287-7529. Deadline: March 1

University of Toronto at Scarborough Scholarship in Studio Art
Awarded to a student applying to Arts-Humanities who intends to take a program in studio art; awarded on the basis of an excellent portfolio that focuses on exploration of concepts and media. Send a covering letter with slides or portfolio and a letter of recommendation from an instructor or arts professional to: The Supervisor, Visual and Performing Arts (Studio). Application required. Deadline: March 1

Canadian Federation of University Women (CFUW) Scarborough Entrance Scholarship
Awarded to a student graduating from a Scarborough area high school, entering the first year in a Humanities program, who has demonstrated outstanding leadership qualities in his/her school or community and demonstrates financial need (OSOTF**). Application required in addition to completing a UTAPS application. Deadline: March 1. First award to be given in 2006.

The Scarborough Frank Faubert Scholarships
Awarded to students entering first, second or third year in a degree program offered by the Department of Management on the basis of financial need. Eligible candidates are to be limited to graduates of high schools within the geographic limits of the Corporation of the City of Scarborough as it existed on December 31, 1997. (OSOTF**). Application required. Complete a UTAPS application by March 1.

Terry Littowitz Merit Award in Management
Awarded to a student entering the Bachelors of Business Administration (BBA) degree program directly from secondary school on the basis of excellent academic achievement and demonstrated leadership in his/her school or broader community. Demonstrated leadership will be defined as someone who has evidence of one or more of the following: extra-curricular involvement in his/her high school (preference will be given to those actively involved in their student council), and/or active service in their community. First award to be given in 2006.

John Ball Alumni Entrance Scholarship
Awarded to a student entering first year on the basis of academic excellence in the secondary school program.
Lo Family Scholarship
Awarded to students who are active leaders, are respected and considered to be well-rounded citizens in their school community and who have demonstrated financial need. Applicants must submit a covering letter to outline their community activity and demonstrated leadership skills to Lo Family Scholarships, Admissions and Awards, 315 Bloor St. W., Toronto, ON, M5S 1A3.
Deadline: April 30

Orrell Family Scholarship
Awarded to a student entering the first year in the International Development Studies Co-op program on the basis of academic merit and financial need (OSOTP*).
Application required. Complete a UTAP application by March 1.

Paul Thompson Entrance Scholarship in Life Sciences
Awarded to a student entering first year in a Life Sciences program on the basis of academic excellence in the secondary school program. The scholarship is awarded in honour of Professor Thompson, a former Principal of UTSC.

John H. Youson Entrance Award in Life Sciences
Awarded to a student entering first year in a Life Sciences program directly from secondary school who has high academic achievement (minimum 90% average) and has demonstrated a high level of extra-curricular involvement in their school or community. Applicants must also demonstrate financial need through completion of a UTAP application. (OSOTP*)
Application Deadline: March 1, 2006. First award to be given in 2006.

Frank M. Weddell Scholarship
Awarded to a student from Brant County, Ontario on the basis of academic excellence.
Application required. Submit a letter indicating how the Brant County condition is met to Weddell Scholarship, Admissions and Awards, 315 Bloor St. W., Toronto, ON, M5S 1A3
Deadline: April 30

In-course Scholarships & Awards
Undergraduate degree students are considered for in-course awards at the end of the session in which they complete their 5th, 10th and 15th fall credit. Most award decisions are made in early fall for students who are eligible for consideration after the previous fall, winter and summer sessions. It is the practice of the University of Toronto at Scarborough Awards Committee to permit a student to hold only one major award. This gives more students an opportunity to be recognized for excellent achievement.

Ontario Student Opportunity Trust Fund Awards (OSOTP*)
To qualify for consideration for awards listed below which are described as OSOTP awards, students must qualify for consideration for the Ontario Student Assistance Program (OSAP). Eligible candidates must be Canadian citizens or permanent residents and satisfy the Ontario Residency requirements as defined by OSAP.

Automatically awarded:
University of Toronto Scholars Program
Outstanding undergraduate degree students will be considered for University of Toronto Scholars Program at the end of the first, second and third year of their programs. At UTSC, there are approximately 15 scholarships at each level. These in-course awards are worth $1500 and are taxable with other in-course scholarships.

A. D. Allen Scholarship
Awarded to the outstanding student in each year at University of Toronto at Scarborough, in any field of study. The scholarships are awarded in memory of Dr. A. D. Allen, a former Principal of UTSC.

Vincent Bladen In-course Scholarships
Two scholarships for each of first, second and third year are awarded on the basis of exceptional academic achievement. The scholarships are awarded in memory of Professor V. Bladen, a former member of the faculty in Economics.

University of Toronto at Scarborough Honours List
University of Toronto at 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 5th, 10th, 15th and 20th credit. Other students may be nominated by the academic department.

The Harvey Babiak Award in Financial Accounting
Awarded to a student completing the third year of the specialist program in Management with the highest average (at least A minus) of grades achieved in MGTC07H and MGTC08H. Donated by KPMG.

Jane Bancroft Scholarship in French
Awarded to a student who is entering the third or fourth year in a major or specialist program in French on the basis of outstanding achievement in French studies. A minimum of 4.0 full credit equivalents must be completed.

William Beadmore Memorial Prize in History
Awarded to the student completing third year, who, in the opinion of the members of the teaching staff in History, has excelled in the study of History. Awarded in the memory of William Beadmore, a History graduate of UTSC.

Bladen Prize in Economics
Awarded on the basis of an essay submitted by a student specializing in Management or Economics on any subject covered by a B-, C- or D-level course in Economics.

Sandford Borins Scholarship In Public Management
Awarded to a student entering 4th year in a specialist program in Management with a minimum cumulative grade point average of 3.3, and the highest standing in 1.5 PCEs of the courses required for the public management field.

Myer Brody Prize in Entrepreneurship
Awarded to an undergraduate student enrolled in a Management program who has the highest grade in the course MGTC89H3 Entrepreneurship (minimum grade A minus).

Norman F. Brown Memorial Award in Humanities
Awarded to a student enrolled in the second or third year of a program in the Department of Humanities on the basis of excellent academic achievement.

Canadian Society for Chemistry Silver Medal
Awarded to a student entering the fourth year of a specialist program in Chemistry who has the highest standing in the program in third year.
Canadian Society for Chemistry, Toronto Section Book Prize
Awarded to the most improved student entering the fourth year of a specialist program in Chemistry.

Yvonne and John Chiu Award in Genetics
Awarded to a student enrolled in a Biological Sciences program who has the highest grade in BCHY151H3 (Transmembrane Genetics).

Neil H. Dobbs Award
Awarded to a student on the basis of financial need. Academic merit will also be considered.
(OSOTF*)

Keith and Amelia Ellis Award in Management and Economics
Awarded to a student entering third year in a degree program in the Department of Management on the basis of financial need. Preference will be given to a candidate who has shown a marked improvement in academic standing from year one to year two. (OSOTF*)

Ernst & Young Scholarships in Commerce
Awarded to students in the third and fourth year Management program, who have successfully completed accounting courses. Financial need is also considered. (OSOTF*)

Frank Faubert Scholarship in International Development Studies
Awarded to a student enrolled in the co-operative program in International Development Studies who is starting his/her work placement.

The Scarborough Frank Faubert Scholarships
Awarded to students entering first, second or third or fourth year in a degree program offered by the Department of Management on the basis of financial need. Eligible candidates are to be limited to graduates of high schools within the geographic limits of the Corporation of the City of Scarborough as it existed on December 31, 1997. (OSOTF*)

Abram Krasinsky Prize in Music
Awarded for the best essay or original composition in a course in music offered at UTSC.

Abram Krasinsky In-Course Scholarship in Visual and Performing Arts
Awarded to a student enrolled in a program in the Visual and Performing Arts who (i) has completed at least 10 full credits and (ii) has achieved excellent standing in VPA courses.

Arthur Louden Scholarship(s)
Awarded to one or more students enrolled in the Early Teacher Project (open to students enrolled in the Department of Physical and Environmental Science programs) on the basis of academic achievement (minimum 3.3 GPA).

The MacDonald Bursary
Awarded to a full-time degree student registered in second, third or fourth year that achieved at least a Grade B standing in the previous year. Financial need must be considered.

Margeison Scholarship in English
Awarded to an outstanding student who has completed the second year of the major or specialism program in English.

The Margaret H. McCoy Johnston Scholarship
Awarded to the student enrolled in a major or specialist program(s) in a modern language who, on entering the third or fourth year, has the highest grade point average in courses taken to satisfy the program(s). (Minimum GPA 3.2).

Tom McFeast Prize in Anthropology
Awarded to the outstanding student entering the final year of the major or the specialist program in Anthropology.

Esther Mitchell Prize in Chemistry
Awarded to a student entering the third year of a program in Chemistry, for achievement in the courses required for the program (a minimum of three full credits in Chemistry, including Analytical Chemistry, must be completed to be considered).

John S. Moir Prize in Canadian History
Awarded to the student with the highest standing in HIST40H3 Canadian History to 1885.

The Katherine Nagel Philosophy Prize
Awarded to the student in the major or specialist program in Philosophy before the beginning of the third or fourth year of study whose grades and performance in Philosophy, in the opinion of the faculty in Philosophy, have demonstrated excellence in the subject.

Dr. Vivian Paskal Memorial Prize in Psychology
Awarded to a full-time student entering the fourth year of the specialist program in Psychology, on the basis of excellent academic achievement.

The William D. Peel Award in Biology
Awarded to a full-time student entering the second year of any program in the Biological Sciences on the basis of excellent achievement in BIOY1H1H and BIOY2H1H Introductory Biology courses (minimum 3.3 GPA/B+). Emphasis will be placed on the laboratory component of the course and overall contribution to the class.

John Pounder Prize in Astronomy
Awarded to a full-time student entering the third year of a Physical Sciences program on the basis of excellent achievement in ASTA40H3, ASTA42H3 and one B- or C-level course in Astronomy.

Rahm & Haas Canada Scholarship
Awarded to one or more students entering either (i) the third year of a major program in Chemistry or (ii) the third or fourth year of a specialist program in Chemistry. Financial need must be considered. Academic merit will also be considered. (OSOTF*)

Social Sciences In-Course Scholarship
Awarded to a student entering the second, third or fourth year of a program offered by the Department of Social Sciences on the basis of excellent academic achievement.

Ting Sum Tang Memorial Scholarship in Arts Management Co-op
Awarded to students entering the fourth year of the Arts Management Co-op Specialist program on the basis of excellent academic achievement (minimum GPA 3.3/B+). The award will be given on the basis of achievement in a recent work placement. (Donated by the Federation of Chinese Canadian Professionals Ontario Education Foundation) First award to be given in 2006.

Ting Sum Tang Memorial Scholarship in Cell & Molecular Biology
Awarded to a student entering the fourth year of a Cell and Molecular Biology Specialist program on the basis of excellent academic achievement (minimum GPA 3.3/B+). The award will be given to a student who has shown a commitment/contribution to their area of study through collaboration in class. (Donated by the Federation of Chinese Canadian Professionals Ontario Education Foundation) First award to be given in 2006.
The Ali Tayyeb Scholarship
Awarded to a student who demonstrates excellent scholarship in Political Geography or studies of developing nations.

Karsholm Thale Prize in English
Awarded to the student who, in the year he/she completes the ENGB03H3, ENGB02H3, ENGB00H3, ENGB04H3, sequence of courses, has the highest average in these four courses.

Stanley Kosta Todchrow Scholarships
Awarded on the basis of academic excellence to one or more students registered in a Life Sciences or Physical Sciences program that leads to a Bachelor of Science degree.

Toronto Kainue Lee Club Prize in Physical Sciences
Awarded to a student enrolled in the Early Teacher Project (a program within the Department of Physical and Environmental Sciences) on the basis of excellent academic achievement and contribution to the program through leadership activities and success in the teaching practicum.

Toronto Kainue Lione Club Prize in Environmental Science
Awarded to a student enrolled in an Environmental Science program on the basis of excellent academic achievement. Preference is given to a student entering the fourth year of the Environmental Chemistry stream who has shown evidence of a commitment to a career in Environmental Chemistry.

Andrew Tsang Memorial Scholarship in Sino-Canadian Studies
Awarded to the undergraduate, whose academic performance and extra-curricular activities in the area of Chinese studies and Sino-Canadian studies best exhibits commitment to Chinese-Canadian cultural and economic ties.

University of Toronto at Scarborough Physics and Astronomy Prize
Awarded to a student entering fourth year in a major or specialist program in Physics, with the highest combined grade point average in 8 required FCE (full credit equivalents) in either the major program in Astrophysics and Physics or in the specialist program in Physics and its Applications, provided that the average is at least 3.3 (B+).

University of Toronto at Scarborough Prize in Biology
Awarded to a full-time student entering the fourth year of a specialist program in Biological Sciences on the basis of excellent academic achievement. Emphasis will be placed on achievement in the third year of study.

University of Toronto at Scarborough Scholarship in Arts and Science
Awarded to a full-time student who is continuing in a Humanities, Life Sciences, Physical Sciences or Social Sciences program. Financial need must be considered and the recipient must be in good academic standing. (OSOTF*)

The University of Toronto Women's Association Loei Dove Memorial Scholarship
Awarded to a student who has achieved excellent academic achievement in the third year of a four-year undergraduate degree program.

Ho Chak Wen Memorial Scholarship in Management
Awarded to student entering second, third or fourth year in a Management program. Financial need must be considered in addition to academic merit. (OSOTF*)

Application/Nomination Required:
Applications are available in the Financial Aid & Registrar's Office and on-line at www.utsc.utoronto.ca/Tmidt

APUS Award for the University of Toronto's Sesquicentennial
Part-time undergraduate students who (a) have completed at least five full credits with a B average (GPA of 3.0) in the last five full credits, and (b) have demonstrated outstanding achievement or commitment in activities distinct from their University studies or have overcome adverse circumstances in order to attend University, may be considered. Applications available on-line at www.apus.utoronto.ca

APUS Scholaristic Awards
Part-time undergraduate students who (a) have completed at least ten full credits, of which four are in an area of specialization, and (b) have obtained a B average (GPA of 3.0) in the most recent five full credits, may be considered. Applications available on-line at www.apus.utoronto.ca

Arts Management Scholarship
Awarded to students enrolled in the co-operative program in Arts Management who are in good standing in the co-op program, who are eligible for placement. Financial need must be considered. (OSOTF*)

Association of Biology and Chemistry Students Award
Awarded to a full-time student enrolled in a program in the Department of Life Sciences or Physical and Environmental Sciences, who is entering third year. Candidates must demonstrate financial need, have a minimum cumulative grade point average of at least 3.3 (B+) and demonstrate involvement in the scientific community. Deadline May 31.

Samuel Beatty In Course Scholarships
Awarded to students enrolled in second, third or fourth year, in a specialist program offered by the departments of Computer & Mathematical Sciences and Physical & Environmental Sciences on the basis of academic performance and financial need.

Leigha Lee Browne Scholarship in Drama
Awarded to a student displaying outstanding ability in the dramatic arts who is either continuing in a Drama Program at UTSC or is graduating and has registered in an advanced training program in the dramatic arts. Deadline June 1.

Canadian Federation of University Women (CF UW) Scarborough Scholarships
Awarded to two students entering the third or fourth year of a major program in Women's Studies who have demonstrated outstanding leadership qualities in their school or community and have financial need. (OSOTF*) Deadline May 1, 2006. First award to be given in 2006.

Cultural Pluralism and the Arts Undergraduate Essay Price
Awarded on the basis of an essay, 2,500 to 5,000 words in length on a topic in the field of Cultural Pluralism and the Arts. Essays are normally those submitted for course work. Nominations are usually made by teachers to the Chair of the Department of Social Sciences by April 15, and should include a copy of the essay and a cover page showing full name of the student, student number and name of the course for which and professor to whom the essay was originally submitted.

Disfanteskotary Essay Prize
Awarded on the basis of an essay, 2,500 to 5,000 words in length, on a topic focusing on Canadian politics or a similar field of Canadian Studies. The essay should have Canada as its primary focus. Essays are normally those submitted for course work. Nominations are usually made by teachers to the Chair of the Department of Social Sciences by April 15, and should include a copy of the essay and a cover page showing full name of the student, student number and name of the course for which and professor to whom the essay was originally submitted.
Jeffrey and Walthera Feldberg Scholarship in Social Sciences
Awarded to an undergraduate student entering third or fourth year who (i) is enrolled in a program sponsored by the Department of Social Sciences with preference given to a student enrolled in a Political Science program and who (ii) has shown outstanding improvement in his/her academic standing while studying under challenging personal circumstances.
Deadline May 31.

Anita Fitzgerald Prize in Women’s Studies
Awarded for the best essay in the area of Women’s Studies. Instructors nominate essays.

Joan E. Feely Award
Awarded to a student, alumnus/a, administrative staff member or faculty member who has made a significant contribution toward improving the quality of academic or extra-curricular student life on campus. Sponsored by the University of Toronto Alumni Association.
Nomination required in December.

The C. K. Govind Excellence Award
Awarded to a full-time undergraduate student entering fourth year of study in an Integrative Biology or Neuroscience program. In addition to academic excellence (minimum cumulative GPA 3.3/B+), candidates must demonstrate a commitment to enhancing the lives of other people, by his/her volunteer work within the community. Open to Canadian citizens and permanent residents. Deadline September 30.

Galtani Y.T. Ho Scholarship in International Development Studies
Awarded to a student entering second, third or fourth year in the co-operative program in International Development Studies. Financial need must be considered in addition to academic merit. (OSOTF*)

International Development Studies Placement Scholarship
Awarded to a student enrolled in the co-operative program in International Development Studies who is starting his or her work placement. Financial need must be considered.

International Development Studies Scholarship
Awarded to students enrolled in the co-operative program in International Development Studies who are starting their work placement. Financial need must be considered. (OSOTF*)

The Morris Krever History Prize
Awarded to a student entering the third year of the major or specialist program in History on the basis of academic performance (at least 3+ standing) and financial need. Emphasis is placed on academic performance. Deadline September 30.

Lawrence B. Leverington Mentor Award
Awarded to a student entering the second, third or fourth year in a Visual and Performing Arts program for outstanding musical ability in one of the following three areas: direction, composition or performance. The award recipient must be in good academic standing and must demonstrate financial need. (OSOTF*) Nomination required. Deadline September 30.

Gervin Livsey Memorial Bursary
Awarded to a student enrolled in the co-operative program in International Development Studies returning from work placement to complete the fifth and final year; given on the basis of financial need. Where two or more students qualify on this basis, the students' contribution to the program and to U of T at Scarborough will also be considered. (OSOTF*) Deadline September 30.

McClennand and Stewart Essay Prize in Canadian Studies
Awarded on the basis of an essay, 2,500 to 5,000 words in length, on a topic focusing on Canadian art, drama, music or literature. Essays are normally those submitted for course work and nominated by instructors. However, students may also submit a copy of their essays directly to the Chair of the Department of Humanities by April 30. Include a cover page showing full name, student number and the name of the course for which and professor to whom the essay was originally submitted.

Peter Mose Prize in French
Awarded for the best undergraduate essay in French drama. Instructors nominate essays.

Jevitta Nagy Scholarships
Part-time students who have a GPA of at least 3.3 in the most recent five full credits who have completed the majority of their courses on a part-time basis may be considered. Sponsored by APSU. Applications available online at www.apsu.utoronto.ca

Nurtile Institute Undergraduate Scholarship(s)
The scholarship is open to students in second or third year in the Faculty of Applied Science and Engineering, the Faculty of Arts and Science and UTEC on the basis of financial need, academic merit and an essay. Deadline November 1.

The Oxford University Press English Essay Prize
Awarded for the best essay written for an English course, in the past academic year. Instructors nominate essays.

The Prudential Insurance Company Ability Award
Awarded to an undergraduate student entering second, third or fourth year who has special educational needs due to a physical or learning disability who (i) has demonstrated outstanding leadership qualities in his/her school or community, (ii) is a Canadian Citizen or Permanent Resident, (iii) has a good academic record (minimum B average/3.0 GPA) and (iv) demonstrates financial need. Preference is normally given to full-time students. However, students who are not enrolled in a full-time course load may explain the reasons for carrying a part-time course load. (OSOTF*) Deadline May 31.

The Prudential Insurance Company Management and Economics Award
Awarded to full-time undergraduate student entering second, third or fourth year in a program in the Department of Management who has demonstrated outstanding leadership qualities in his/her school or community who (i) is a Canadian Citizen or Permanent Resident, (ii) has a good academic record (minimum B average/3.0 GPA) and (iii) demonstrates financial need. (OSOTF*) Deadline May 31.

The Prudential Insurance Company Scarborough Spirit Award
Awarded to a full-time undergraduate student entering second, third or fourth year who has demonstrated outstanding leadership qualities in his/her school or community who (i) is a Canadian citizen or permanent resident, (ii) has been a Scarborough resident for at least 5 years, (iii) is a graduate of a secondary school in Scarborough, (iv) has a good academic record (minimum B average/3.0 GPA) and (v) demonstrates financial need. (OSOTF*) Deadline May 31.

Brian David Radford Memorial Scholarship in Management
Awarded to one or more students entering the third or fourth year of a Management program whose academic and athletic achievement, combined, best exhibit dedication to excellence (minimum B+ average/3.3 GPA). Deadline September 30.

Residence Life Scholarship
Awards will be given to full-time undergraduate students entering second, third or fourth year, who are i) returning to residence for the following year, ii) have demonstrated a strong involvement in their residence community, iii) have a good academic record (minimum B average/3.0 GPA), iv) have completed at least 3.0 credits in each year they have been registered, v) demonstrate financial need. Deadline May 31.
The Rouge Watershed Scholarship
Awarded to a student enrolled in an Environmental Science, Ecology or Geography program on the basis of excellent academic achievement, strong interest in environmental issues and active participation in environmental projects within the university or community. (OSOTF*) Financial need must be considered. Deadline April 30.

Scarborough Campus Students’ Union Prizes
Awarded to a student in good academic standing entering the second, third or fourth year who has made an outstanding contribution to the academic, social or cultural life of UTSC. Application or nomination required. Deadline May 31.

Scarborough-York Region Chinese Business Association Scholarship
Awarded to students enrolled in the co-operative program in International Development Studies who are starting their work placement. Financial need must be considered. (OSOTF*)

SKF Canada Limited Scholarship
Awarded to a student enrolled in the co-operative program in International Development Studies who is starting the work placement. Financial need must be considered. Academic merit will also be considered. (OSOTF*)

South Asian Alliance In-Course Award
Awarded to a student entering second, third or fourth year on the basis of academic merit and participation in UTSC extracurricular activities that enhance community spirit. Application or nomination required. Deadline May 31.

Wo You Sun Scholarship
Awarded to a student enrolled in the co-operative program in International Development Studies who is starting the work placement. Financial need must be considered. (OSOTF*)

University of Toronto at Scarborough Prizes in Creative Writing
Awarded on the basis of excellence in creative writing in poetry or short fiction. (1000 word maximum for poetry submission; 3000 word maximum for short fiction.) Submissions will be made to the Coordinator of the Writing Centre and must include a cover page showing full name of the student, student number, contact information and the name of the course for which the piece was originally submitted (if the piece was used in course work). Deadline April 1.

The Branko Vojnovic Uoft at Scarborough AccessAbility Award
Awarded to an undergraduate student entering second, third or fourth year at UTSC who is registered with Accessability Services and has special educational needs due to a disability and or challenge as defined under the Human Rights Code, is in good academic standing and displays a drive for learning. Preference is given to students enrolled in Management programs. Nomination required. Deadline May 31.

Frank M. Waddell Scholarship
Awarded to a student from Brampton, Ontario on the basis of academic excellence.

Financial Need Based Bursaries/Grants and Financial Assistance Programs
University of Toronto Advance Planning for Students (UTAPS)
Students who are concerned about financing their university studies can obtain early information about government and other financial assistance by completing a UTAPS application. These applications are available on-line at http://www.utm.utoronto.ca/5/UTAPS/default.htm and should be completed by all Canadian citizens and permanent residents who have applied for admission to full-time studies at the University of Toronto. Students will receive notification of UTAPS eligibility with the offer of admission. All students notified need above their government-funding maximum, will be automatically assessed for UTAPS grant assistance throughout the year.

Government Financial Aid
The Ontario Student Assistance Program (OSAP) is available to Ontario residents who are Canadian citizens, permanent residents, or convention refugees to assist with educational and living expenses. OSAP loans are interest-free and are non-repayable while the student remains enrolled in full-time studies. Information concerning the eligibility and assessment criteria may be obtained from: Ministry of Training, Colleges and Universities OSAP (website: http://osap.gov.on.ca) or the Financial Aid & Registrar’s Office, (416) 287-7001. OSAP application forms are available on-line at the Ministry’s website. It is recommended that returning students apply for OSAP assistance for the 2005-2006 Fall/Winter Sessions by May 31, and new students by June 30. Check with staff regarding summer deadlines.

Students from other Canadian provinces should apply through their provincial financial aid program. The Financial Aid & Registrar’s Office can provide addresses, and, in many cases, application forms.

University of Toronto Undergraduate Bursaries/Grants
Applications must demonstrate financial need. Applications may be obtained from the Financial Aid & Registrar's Office or on-line at www.sns.utoronto.ca/finaid. Review application for specific seasonal deadlines.

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. Information and applications are available from the Advising, Career and Student Success Centre AR213.

N’Shenamn Child Care Bursary
Awarded to one or more students who have/will have a child/children at N’Shenamn Child Care facility on the basis of financial need. Bursary must be applied to fee at N’Shenamn.


Scarbrough Campus Students’ Union Dollar for Daycare Grants
Awarded to full-time or part-time undergraduate students on the basis of financial related to daycare expenses. Deadline: Late February.

Bursary for Students with Disabilities
Non-repayable assistance is available from the federal and provincial governments for OSAP recipients who have special educational expenses as a result of a disability. Information is available in Accessability Services S302.

University of Toronto Women’s Association Bursary
Awarded on the basis of financial need. Submit a bursary application with a covering letter to Admissions and Awards, 315 Bloxer Street West, Toronto, ON, M5S 1A3 by September 30 (OSOTF*).

Graduation Awards
Automatically awarded:
Graduation With High Distinction and With Distinction
University of Toronto at Scarborough students who have completed at least ten full-credits while registered at UTSC, at the University of Toronto’s Faculty of Arts and Science or at the University of Toronto at Mississauga will graduate with high distinction if their cumulative grade point average is 3.30 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.
University of Toronto at Scarborough Honours List
University of Toronto at 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 5th, 10th, 15th and 20th credit.

Graduation Prizes in: Humanities; Life Sciences: Management & Economics; Computer & Mathematical Sciences; Physical & Environmental Sciences; and, Social Sciences
Awarded to the outstanding member of the graduating class in each of these areas of scholarship.

Albert Berry Graduation Prize in International Development Studies
Awarded to the outstanding student graduating from the specialist (co-operative) program in International Development Studies.

Gordon Cressey Student Leadership Award
To qualify for consideration, students must be in their final year, be in good academic standing and must have made a substantial contribution to their college, faculty, or the University as a whole. The award, established by the University of Toronto Alumni Association, requires a nomination by University of Toronto at Scarborough. The nomination deadline is normally in January.

W.M. Dick Graduation Prize in History
Awarded to the outstanding student graduating in History, in a major or specialist program.

Digital Equipment of Canada Limited Award of Merit
Awarded to the most outstanding student graduating in Computer Science in the University.

Ford Prizes in Psychology
Awarded to the outstanding student graduating in Psychology.

Graduation Prize in Political Science
Awarded to the outstanding student graduating in a major or specialist program in Political Science.

Graduation Prize in Studio Art
- Awarded to a student graduating in a studio art program who has demonstrated outstanding achievement in the studio courses.

Robert James Prize in Sociology
Awarded to the outstanding student graduating in Sociology in a major or specialist program.

The Manzer Graduation Prize in Public Policy
Awarded to the outstanding student in Public Policy, in a major or specialist program.

Orpheus Prize in Humanities
Awarded to an outstanding member of the graduating class who has completed either the specialist program in Arts and Culture, the major program in Art History, the major program in Drama, or the major program in Music and Culture.

The Bob Shirley Prize in Anthropology
Awarded to the outstanding student graduating in Anthropology, in a major or specialist program.

Academic Regulations

The Society of Chemical Industry Student of Merit Award
Awarded to a member of the graduating class who has completed a specialist program in Chemistry and achieved the highest standing in the final year (minimum GPA of 3.675%) has completed the degree within the normal number of years.

All Tayyeb Prize in Geography
Awarded to the outstanding student graduating in Geography in a major or specialist program.

Application/Nomination Required:
CGA Ontario Award for Excellence
Awarded to an outstanding graduating student completing a Management program who has displayed excellent achievement in accounting with an average of at least B plus in MGTR03H, MGTR206H, MGTR207H and MGTR208H. Preference will be given to students who intend to enrol in the CGA program. A declaration is required. Write to the Assistant Registrar-Financial Aid & Awards by May 15.

John H. Moos Scholarship
Exceptional all-round students graduating in the spring who intend to enter a graduate or second undergraduate degree program should request an application for this prestigious scholarship from the University of Toronto Alumni Association in the fall. The deadline is normally in early December.

The UTSC Letter Award
The award recognizes graduating students for significant contributions to improving the quality of student life at UTSC. More information may be obtained at the Office of Student Affairs or at the following website: www.utsu.utoronto.ca/~mysuccess Nomination required.

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 whose registration contravenes the regulations may be withdrawn from courses, regardless of the contravention coming to light. 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.

Calendar changes
The information published in this calendar outlines the rules, regulations, curricula and Programs for the University of Toronto at 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 at Scarborough reserves the right to change without notice any information contained in this Calendar, including any rule or regulation. The Web version of the Calendar at www.utsu.utoronto.ca is kept up-to-date with changes made after publication.

Enrollment limits
The University of Toronto at Scarborough reserves the right to limit the number of registries in any Program or course where the number of qualified students exceeds the teaching or other resources available. As far as possible, places will be available for incoming students in A-level courses.
Students in debt to the University
University of Toronto at Scarborough imposes the following academic sanctions on students in debt to the University:
- transcripts are not issued
- registration of continuing students is cancelled
- 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 at present available only to UTSC & Faculty of Arts and Science students.

ROSI (www.rosi.utoronto.ca)
Students can access ROSI to:
- add and drop (cancel) courses
- add and change meeting sections
- check the status of course requests
- list courses on their record & print their personal timetable
- check to see if there is still room in a course
- add and drop Specialist, Major and Minor Subject POSIs
- access grades, GPAs and academic status
- display their academic record
- request a transcript or view their transcript requests
- confirm their intention to graduate
- change their PIN or reactivate their PIN
- change address and telephone numbers
- change email address
- update next of kin and emergency contact information
- view personal information
- view their fees account
- download and print T2202A tuition tax certificate
- list their ROSI transactions

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. 880323 = March 23, 1988) 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 set their PIN reactivation feature – see below.) For security there is a limit of three on the number of 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. Students who have 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 on ROSI is included in the registration material.

Degree Navigator (www.rosi.utoronto.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 such as:
  - How do the courses they plan to take fit into their degree & program?
  - What if they switch from the major to the specialist
  - What if they switch to another area
  - What if they switch to another program?
- the rules changed after they entered the program. Would it be better for them to follow the new rules?
- check different sets of program requirements

All student information (e.g. courses, program enrolments) in Degree Navigator comes from ROSI and is refreshed once a day. Only UTSC and Faculty of Arts and Science records are currently available.

The software is still in development and there may be instances where the data is inconsistent. There is a ‘CONTACT US’ option in Degree Navigator which students can use. The University welcomes any comments or questions.

UTSC Registrar’s Office Home Page (www.utsc.utoronto.ca/registrar)
Available information includes:
- the information in this Calendar
- changes to the Calendar
- timetable for each session
- timetable changes, examination timetables
- ROSI Subject POSI codes
- Registration Guide
- Departmental, discipline and course information, study guides, faculty home pages
- faculty and administration telephone directories
- downloadable petition form on Academic Matters, Petitions Guide for Students and the University of Toronto at Scarborough Medical Certificate
- other downloadable forms

Course key
The Course Code:
1. The Subject Abbreviation
   The first three characters of the course code indicate, in an abbreviated form, the discipline or subject area of the course. ANT40H3 "ANT" indicates a course in Anthropology; CMH441H3 "CHM" indicates a course in Chemistry, HSSD30H3 "HIS" indicates a course in History.
2. The Course Level
   The fourth character of the course code indicates the level of the course with "A" indicating the most elementary level and "P" the most advanced
3. The Course Number
   The fifth and sixth characters of the course code are course numbers. In most disciplines, these numbers have no significance, except to identify the course in a shorthand form.
Course selection

In selecting their courses, students must adhere to the following regulations:

1. Prerequisites and co-requisites for each course, as stated in the course description, must be met, unless waived by the instructor.
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.
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 if 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. This rule does not apply in the case of non-specific prerequisites (such as "one B-level credit in History") or in the case where one of two or more completely different courses may serve as prerequisite.
5. Where students may not register in courses for credit, they may register in them as extra courses. In such cases, both registrations in the course are shown on the student's record but the second grade is not included in the student's grade point average but does not count towards the degree.
6. Students may normally select as many courses as they wish each session. Students should, however, note the following:
   • The usual load maximum for a full-time student in any session is 2.5 full credits.
   • Students who are on probation are strongly advised to carry no more than an average load. Students who choose not to follow this advice do so at their own risk.
7. Students who wish to register in courses in the Faculty of Arts and Science or at the University of Toronto at Mississauga should consult "Courses on Other Campus" in this section of the 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 any session.
9. Students who are restricted to part-time studies may have a load of no more than 1.25 full credits equivalents in any session until they have completed at least 3.0 full credit equivalents 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 an examination during the day and vice versa. Students may also be required to write Saturday 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 on completing the transaction. Registration consists of two basic steps:
1. Course selection, and
2. Fees payment.
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 http://www.utm.utoronto.ca/registrar.)

Note: Degree students who have completed 4.0 or more full credits must be in an appropriate combination of Subject POSIs before they may select courses.

Course selection
Courses may be selected through ROSI. (For regulations on course selection, see above.)
Fees payment
All fees are posted to the student's financial account. Students may view their financial account on ROSI. Information on the fees process is included in the Registration Guide. Students will also receive an invoice detailing fees payable for their program of study. For further information go to www.utes.toronto.ca or contact Student Accounts, University of Toronto, 215 Bloor St., Toronto, Ontario, M5S 1A2; telephone: 416-978-2142; fax: 416-978-5572; email: info.studentaccounts@utoronto.ca

Program registration
All degree students with at least 4 credits are required to register on ROSI in their Specialist, Major or Minor Programs. Students may register only in Programs (Subject POSIs) offered by University of Toronto at Scarborough. ROSI Subject POSIs codes can be found at: www.utes.toronto.ca/register. (For regulations governing Programs, see the Programs of Study section of this Calendar.)

Summer Session
Students who registered at UTSC in the 2004 Summer, the 2004 Fall or the 2005 Winter Sessions and who are not on suspension are automatically eligible to register and may pick up their registration packages in late March at the Registrar’s Office. Other students who want to register should contact the Registrar’s Office.

Fall & Winter Sessions
Students who registered at UTSC in the 2004 Fall, the 2005 Winter or the 2005 Summer Session and who are not on suspension are automatically eligible to register and may pick up their registration packages in late March at the Registrar’s Office. Other students who want to register should contact the Registrar’s Office.

Course changes
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 changes have been processed properly. They will not receive written confirmation of the change but it will be recorded in the detailed transaction log kept 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 information published each session for more information at http://www.utes.toronto.ca.)

Adding a course
Some courses have a 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.utes.toronto.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 course selection form thereafter. Note: For some course sections, changes are not permitted on ROSI—these are listed in the timetable at www.utes.toronto.ca/timetable.

Dropping a course
If students withdraw from a course by the appropriate academic deadline, no record of registration is shown on the student’s transcript. If students cease to complete course requirements but do not withdraw officially by the academic deadline, a grade based on the marks awarded (including a zero for any incomplete work) will be recorded.

Withdrawal from the session
Students dropping all their courses in a session may wish to speak to an Academic Adviser at the Registrar’s Office/TSO about the academic and financial consequences of withdrawal.

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>Excellent</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>85-89</td>
<td>Good</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>77-79</td>
<td>Adequate</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>73-76</td>
<td>Marginal</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>70-72</td>
<td>No value</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>67-69</td>
<td>No value</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>63-66</td>
<td>No value</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td>60-62</td>
<td>No value</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
<td>57-59</td>
<td>No value</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>55-56</td>
<td>No value</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
<td>50-52</td>
<td>No value</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>NR</td>
<td>0.0</td>
<td>0-49</td>
<td>No value</td>
</tr>
<tr>
<td>NCR</td>
<td>0.0</td>
<td>No Value</td>
<td>No credit in a Credit-No-credit course</td>
</tr>
</tbody>
</table>

Grades of 'F' and 'NCR' are failing grades, yielding no standing in a course and no degree credit. Students are cautioned that a numeric score on an assignment is not deemed to be automatically equivalent to the corresponding letter grade.

Credit/No credit courses
In some courses, such as certain visual and performing arts courses, specific letter grades may not be assigned. Students may instead be graded on a Credit/No credit (CR/NCR) system. The grade of "No credit" is a failing grade. Where students earn a grade of "Credit" in a course, the course is not included in the grade point average; where students earn a grade of "No Credit", the course is included as an "F" (value zero) in the grade point average.

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 will not be included in any grade point average.
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 credit equivalents 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 at 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 credit equivalents since beginning their studies at the University of Toronto at 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

   a. Students who have attempted at least three full credit equivalents and have a cumulative GPA of less than 1.60 are placed on probation.
   b. 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).

   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 credit equivalents per session.

2. Upon notification of probation, students enrolled in future sessions must drop all courses above the 2.0 full credit equivalent maximum. Failure to do so within 7 days of notification will result in the students being withdrawn from all courses. If students petition successfully to re-enroll in courses after the registration deadline for the session, a late registration fee will be applied.

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 advisers is available from the Registrar’s Office.)

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. The status of students admitted on condition will be assessed at the end of the session in which such students complete their third full-credit equivalent.

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 UTSC must arrange for official transcripts of other post-secondary studies to be sent to the University of Toronto at 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 at 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 credit equivalents 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 mailed 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 at Scarborough grade point averages, as are all University of Toronto courses taken for credit while registered at University of Toronto at 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
Students are permitted to take up to 5.0 full credit equivalents in other arts and science divisions of the University of Toronto. No more than 1.0 of a student's first 4.0 full credit equivalents at UTSC may be taken on another campus. 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: Only programs offered by the University of Toronto at Scarborough may be used to fulfill degree requirements.

Courses in Other Faculties
Students are not permitted to register for courses in Faculties other than the arts and science divisions of the University unless they have received permission by petition or unless the courses are required by their Specialist or Major Program.

Transfer to other Arts and Science Faculties
Students who are contemplating transfers to other divisions of the University should be aware that the University of Toronto at Scarborough is in fact a separate faculty and rules governing students at University of Toronto at Scarborough may differ from those in the other arts and science divisions. Students are urged to consult the Office of Admissions and Awards at 315 Bloor Street West to establish how they will be affected by transferring from one arts and science division to another.

Study At Other Universities
Students who wish to take courses at another university and have credits transferred to UTSC must receive permission from UTSC in advance 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 UTSC's approval in advance do so at their own risk since permission to transfer 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 UTSC are required to supply official transcripts upon re-enrollment. Grades attained at other universities may affect a student's academic status.

There are three types of Programs where transfer credit is considered: A Letter of Permission allows a student to study at a university similar in setting to the University of Toronto. Usually, students are studying on a part-time basis on a Letter of Permission. The Study Elsewhere program allows a student to study full-time at an accredited university in a different cultural setting to enhance the student's educational experience. The program is called "Study Elsewhere." when we do not have exchange agreements in place with other universities. Where we do have exchange agreements with other universities, the program is called the Student Exchange Program. One advantage of a Student Exchange program is that students pay their regular tuition fees at the University of Toronto. As you will note below, the regulations governing the programs differ. Another option for studying abroad is through the Summer Abroad Program administered by Woodworth College where Faculty of Arts and Science courses are being offered abroad. Woodworth College welcomes applications from UTSC students. The limits specified above in the "Courses on other campuses" section of this Calendar apply.

Grades and Accountability
Students registering in courses offered by the University of Toronto receive grades in the normal manner.

To receive credit for other courses, the student must earn one full grade higher than the 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. However, grades achieved may be taken into consideration for award eligibility (if achievement is excellent) or change in academic status (if achievement is poor).

Students must arrange for the host universities to send official transcripts to UTSC 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. (Students 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 UTSC may be eligible for similar assistance. Consult Admissions and Awards (315 Bloor Street W.) at 416-978-2190.

1. Letters of Permission

Application available at: www.utsc.toronto.ca/registrar
Deadline to apply: Apply at least three weeks prior to the start of the course.

To take a course at another university, students must, in advance, apply for and receive a "Letter of Permission" from UTSC. Courses requested must be appropriate for degree credit at UTSC. In addition the student must give reasons why the Letter of Permission is necessary. To be considered, a student must have completed the equivalent of 4.0 full credit at UTSC and be in good standing. A maximum of 5.0 full credits may be obtained on a Letter of Permission. 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. Only 1.0 full credit at the C level or D level will be permitted to be taken on a Letter of Permission. A student who completes the final credit(s) for the degree during the Winter Session may not apply to graduate at the June convocation but may apply for graduation at the November convocation. A fee will be charged for each Letter of Permission.

Special Note: French Summer Immersion Programs
Explore the Summer Language Immersion Program in French offers three sessions this summer: intensive courses and credited to UTSC's French 1 and 2 courses. Students interested in this five-week immersion program in French are welcome to apply. Students may also be downloaded from the Ministry website: www.junioror.ca/

Speak to the Admissions and Transfer Credit Office and to the Study Elsewhere Supervisor in French for advice about choosing three universities offering courses that most closely correspond
### International Programs:

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<tr>
<th>Country</th>
<th>University/Program</th>
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<tbody>
<tr>
<td><strong>Australia</strong></td>
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<td></td>
<td>Australian National University</td>
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<td>University of Melbourne</td>
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<td>University of New South Wales</td>
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<td>University of Queensland</td>
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<td>University of Sydney</td>
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<td><strong>Barbados</strong></td>
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<td>University of the West Indies (Cave Hill)</td>
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<td><strong>China</strong></td>
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<td>Chinese University of Hong Kong</td>
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<td>University of Hong Kong</td>
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<td><strong>Denmark</strong></td>
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<td>The University of Aarhus</td>
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<td><strong>England</strong></td>
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<td>Heriot-Watt University</td>
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<td>Lyon 1 (Claude Bernard University)</td>
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<td>Lyon 2 (Lumière University)</td>
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Academic transcripts
The academic transcript is the official statement of the academic record of each student.

Contents
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;
   - 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 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 convocation 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 aegrotat standing;
   - other consideration deemed to have altered the academic record.

Ordering Official Copies
Institutions 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: http://www.rosi.utoronto.ca. Requests may also be made in person, or by writing to the University of Toronto Transcript Production Centre, 100 St. George Street, Room 7100, Toronto, ON M5S 3G3.

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. Students may also be required to write Saturday term tests or examinations.

Examination timetable conflicts
Students scheduled to write two examinations at the same time should report their conflicts to the Scheduling & Examinations Officer, Registrar's Office (currently in Room S416A, moving to the new Arts & Administration building in August 2005, 416-287-7540). 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 at 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 scheduled to write examinations in three consecutive time slots (these are morning, afternoon and evening) may request special arrangements. Requests for such arrangements must be made with the Scheduling & Examinations Officer no later than two full weeks before the commencement of examinations. Requests will not be considered after that time.

Accommodation for Religious Observances
The University has adopted a policy concerning accommodation for religious observances as they relate to the scheduling of examinations. Examination timetables are prepared with the observance of the major Christian denominations and of the Jewish observances of Rosh Hashanah, Yom Kippur and Passover in mind. Nevertheless, examination timetables may conflict with the religious observances of some students. A student for whom a religious observance makes it impossible by creed for him/her to be present for an examination should bring this fact to the Office of the Associate Dean immediately. The Associate Dean will make appropriate arrangements for re-scheduling the examination as necessary.

Special consideration regarding examinations
Students requesting special consideration because they are unable to write a final examination must submit a petition through the Registrar's Office no later than the last day of the examination period. Petitions must be accompanied by a medical certificate or other appropriate supporting evidence. Please refer to the information concerning petitions and medical certificates in "Special consideration, petitions and appeals" below in this section of the Calendar.
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 Calendar of the Faculty of Arts & Science for regulations regarding its courses on the St. George Campus. You are responsible for observing the regulations governing any courses you take on other campuses. However, all UTSC students must adhere to UTSC deadlines for petitions and appeals, irrespective of the Campus on which the course is taken.

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 Department 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. If illness or other extenuating circumstances prevent you from writing a final examination, you may request special consideration by means of a petition (See D Below). This must be submitted as soon as possible and no later than the last day of the examination period.
   • If you are affected by illness or other circumstances which do not actually prevent your writing an examination, you are required to attempt it. If, after receiving your final grade, you feel that your performance on the exam was adversely affected, you may petition to rewrite it (See D Below).

2. If you are permitted to rewrite, the amended grade will stand, whether higher or lower.

3. Deferred examinations for all University of Toronto at Scarborough courses, including those which are being rewritten, are held as follows:
   • exams deferred from April and May are held in the August examination period
   • exams deferred from August are held in the December examination period
   • exams deferred from December are held in the April/May examination period

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 to write any University of Toronto at Scarborough deferred examination.
5. If you are given permission to write a deferred exam, or to rewrite an exam, you must indicate your intention to write it and pay the required fee by the deadline set. Failure to respond or to pay the fee will result in loss of privilege to sit the examination.
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 exam, you may petition for an extension of time to write it; normally no other form of special consideration will be granted. Permission will be granted only under exceptional circumstances and when supported by strong documentation. A petition for an extension of time to sit a deferred examination will be considered only once.
8. Under truly exceptional circumstances, students who will unavoidably be outside the Toronto area during the special examination period may petition for permission to write at an outside centre. Such a petition must detail the reasons for the request and must be submitted at least three weeks prior to the beginning of the deferred examination period. Late requests cannot be accommodated.

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 at an outside centre are also responsible for all costs of investigation, counter 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 from the Registrar’s Office. After that date, examinations are destroyed. A non-refundable fee is charged. Note: Occasionally, Departments may not release final examinations in particular courses – check the list posted in the Registrar’s Office.

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 recalculation of the calculation through the Registrar’s Office on a form provided for this purpose. (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. Please note that before submitting any failing grade, instructions are required to re-read the final exam and recheck the calculation of term and final marks.

4. Appealing Assigned Grades
   If you wish to appeal a mark 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 obtaining 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 re-read by another faculty member. Claims of prejudice must be supported in detail and whenever possible confirmed by a third party. If, however, 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 assigned 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 before the end of the final examination period. 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.
   (b) 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, though 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 three weeks of its submission.

1. To enter a petition you must obtain from the Registrar’s Office a petition form. Follow the instructions on the form and fill it out completely, including the Petitioner’s Checklist. The petition form may also be downloaded from the Registrar’s Office website.

2. 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 try to meet with an academic advisor in the Academic Career and Learning Skills Resource Centre or a personal counsellor in the Health and Wellness Centre. Do not let this recommendation interfere with your submitting your petition by the deadline.
Special consideration, petitions and appeals

3 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 Student Medical Certificate for this
   purpose. A copy of the Student Medical Certificate may be downloaded from
   http://www.utoronto.ca/health/notecert.pdf
   Medical documentation for examinations missed because of illness must be obtained on the
doctor 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.

4 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
        misevaluation;
      • show that the alleged misevaluation is of a substantial nature: in an objective
        answer, that a correct response has been counted as incorrect, or in a subjective or
        essay answer, that the response has been under-evaluated substantially. A photocopy
        of the examination must be submitted with the petition.

5 You will be notified in writing 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. Complex
   cases and petitions submitted during very busy periods may take longer.

6. If your petition is granted, the following will be recorded on your transcript (academic
   record):
      • withdrawal from courses after the published deadline (WDR)
      • deferral of suspension (“suspension deferred”)
      • award of an acceptable grade (ARG)
   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 at 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 make-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: last day of the examination period

   Summer Session
   • petitions to rewrite final examinations: September 30

   Fall Session
   • petitions to rewrite final examinations in September-December courses: January 31

   Winter Session
   • petitions to rewrite final examinations in September-May or January-May courses: May 31

3. Missed Deferred Examinations
   • petitions to write a deferred examination which has been missed: last day of the relevant
     examination period

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 recalculation 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
1. You may appeal denial of a petition to the Sub-committee on Academic Appeals. Such
   appeals must be commenced no later than ninety days after the decision being
   appealed has been communicated to you in writing. An appeal is commenced by filing a Notice of Appeal
   on the form provided for this purpose through the Office of the Associate Dean, currently in Room 544AA, moving to the new Arts & Administration
   building in August 2005, (telephone 416-287-7354). Full information may be obtained
   from that office.

2. You may appeal a decision of the Sub-committee on Academic Appeals to the
   Academic Appeals Committee of Governing Council. Such appeals must be
   commenced no later than ninety days after the decision being appealed has been
   communicated to you in writing. An appeal is commenced by filing a Notice of Appeal
   to the Secretary of the Appeals Committee on the form provided for this purpose. Full
   information may be obtained from the:
   Judicial Affairs Officer
   Office of the Governing Council
   Room 106, Simcoe Hall
   St. George Campus
   (telephone 416-946-7663)
Policy on Access to Student Academic Records

1. Purpose
   (a) Academic records of students are ultimately the property of the University, and it is the responsibility of the University to establish overall University policy in this area. This policy establishes University-wide aims, objectives, criteria and procedures which shall apply to the academic records of students of academic divisions of the University.

   (b) The purpose of this policy is to combine consistency with flexibility in such a way as to ensure that:
      (i) Students, alumni and former students are allowed as great a degree of access to their own academic records as is academically justifiable and administratively feasible.
      (ii) A student's right to privacy in relation to his or her academic records is safeguarded as far as both internal university access and external public access are concerned.
      (iii) There will be basic university-wide consistency in the kinds of information collected, recorded, filed and made available.
      (iv) In keeping with the pluralistic nature of the University, academic divisions may retain some flexibility in the implementation and application of the policies established within this document.

   (c) Individual divisional regulations and procedures on access to student academic records, including the statement in the divisional calendar concerning such, shall be reported to the Provost and the Committee on Academic Policy and Programs. Any subsequent revisions shall also be reported.

   (d) This policy supersedes the 1975 access policy for undergraduate student records and the 1981 access policy for graduate student records.

2. For the purposes of this policy:
   (a) "student" means any person registered at the University for full-time or part-time study in a program that leads to a degree or post-secondary diploma or certificate of the University or in a program designated as a program of post-secondary study at the University by the Governing Council or other University body having delegated authority. On the date of an enquiry or request relevant to this policy, persons who have been registered within a period of two calendar years shall be included in the provisions which relate to "students".

   (b) "alumni" or "alumna" means any person who has received a degree or post-secondary diploma or certificate from the University, or any person who has completed one year of full-time studies or the equivalent thereof as determined by the Governing Council.

   (c) "former student" means any person who is not a student or an alumnus or alumna who has been registered at the University in a program as defined in Section 2(a), and is no longer registered at the University.

   (d) "academic division" means a college, school, institute, faculty or other division of the University that has academic autonomy (i.e., the right to administer its own degrees, diplomas, certificates and other programs of study), subject only to the authority of the Vice-President and Provost, the President and the Governing Council.

3. Definition of the official student academic records
   The official student academic record refers to information relating to a student's admission to and academic performance at this University.

   The "official student academic record" shall contain:
   (a) (i) Personal information which is required in the administration of official student academic records such as name, student number, citizenship, social insurance number.
       (ii) Registration and enrolment information.
       (iii) Results for each course and academic period.
   (b) (i) Narrative evaluations of a student's academic performance subsequent to his or her admission, used to judge his or her progress through an academic program.
       (ii) Basis for a student's admission such as the application for admission and supporting documents.
       (iii) Results of petitions and appeals filed by a student.
       (iv) Medical information relevant to a student's academic performance which has been furnished at the request or with the consent of the student concerned.
       (v) Letters of reference which may or may not have been provided on the understanding that they shall be maintained in confidence.
       (vi) Personal and biographical information such as address and telephone number.

   The "official student academic record" shall be maintained by the University. For each type of information, academic divisions shall designate which document, form or medium contains the official version and how official copies of such information will be identified.

4. Access to official student academic records
   (a) Access by a student
       (i) A student may examine and have copies made of his or her official student academic record defined in Section 3 above, with the exception of those portions of the record which comprise letters of reference (Section 3(b)(iv)) which have been provided or obtained on the expressed or implied understanding that they shall be maintained in confidence. A student may, however, be advised of the identity of the authors of any confidential letters contained in his or her official academic record.
       (ii) A student's request to examine a part of his or her official student academic record shall be made in writing and shall be complied with by the responsible authorities within a division. Such compliance shall occur within 30 days of receipt of the request, or within such lesser period as a division may determine.
       (iii) A student has the right to challenge the accuracy of his or her official student academic record with the exception of the material specifically excluded in Section 4(a)(i) and to have his or her official student academic record supplemented with comments so long as the sources of such comments are identified and the official student academic record remains secure within the custody of the academic division. Reference to such comments does not appear on reports such as transcripts or statements of results.

       (iv) It is assumed that all documents relating to petitions and appeals (Section 3(b)(iii)) and not provided on the understanding that they shall be maintained in confidence will be retained within a division and, when needed by a student, will be made freely available. In addition, The Statutory Powers Procedure Act, 1971 of Ontario requires that where the good character, propriety of conduct or competence of a party is in issue in any proceedings in
a tribunal to which the Act applies (such as the Academic Appeals Board of the Governing Council), the party is entitled to be furnished prior to the hearing with "reasonable information" of any allegations with respect thereto.

(b) Access by alumni and former students

(i) An alumni or alumnus or a former student may examine and have copies made of the portion of his or her official student academic record as defined in Section 3(a) above.

(ii) A request from an alumni or alumnus or a former student to examine the portion of the official student academic record as defined in Section 3(a) shall be made in writing and shall be complied with by the responsible authorities within a division. Such compliance shall occur within 30 days of receipt of the request, or within such lesser period as a division may determine.

(iii) An alumni or alumnus or a former student shall have the right to challenge the accuracy of his or her official student academic record only under such terms and conditions as the academic division may determine and publish in the divisional calendar.

(c) Access by University Staff and members of official University and divisional councils and standing committees

Members of the teaching and administrative staff of the University and members of official University and divisional councils and committees shall have access to relevant portions of an official student academic record for purposes related to the performance of their duties. A staff member requesting information must have a legitimate need to have the requested information for the effective functioning of the position or office.

Access to medical information as defined in Section 3(b)(v) shall be granted to members of the teaching and administrative staff only with the prior expressed or implied consent of the student and, if applicable, in the case of a medical assessment, the originating (physician, etc.) of such.

The Department of Alumni and Community Relations shall have access to appropriate personal information on students and alumni for the purpose of maintaining contact with alumni.

(d) Access by University campus organizations

Recognized campus organizations in the University of Toronto shall have access to the information referred to in Section 3(a)(ii) as well as to the personal address and telephone number of students named by that organization for the legitimate internal use of that organization. The Student's Administrative Council, Graduate Students' Union, Association for Part-time Undergraduate Students, and The Newspaper shall be entitled to publish and distribute within the University community a University-wide directory of students (including undergraduate, graduate, full-time and part-time) giving the personal address and telephone number of students as long as there is a realistic provision for students to decline to consent to the disclosure of that information.

Names and addresses of students will also be provided to recognized campus organizations for the purpose of distributing information when all of the following conditions are met:

• The name and address information is not released to a third party.
• The name and address information is not used for commercial purposes.
• The organization proposes to distribute information which, in the opinion of the Assistant Vice-President (Planning) and University Registrar, the University would be willing to distribute if reimbursed by the organization.
• The information to be distributed is intended to provide information about the University and is not primarily advertisements for non-University organizations.
• The campus organization agrees to use the name and address information only for the specific purpose for which it was provided.

(e) Access by others

(i) By the act of registration, a student gives implied consent for a minimal amount of information to be made freely available to all enquirers:
• the academic division(s), degree program(s) and the session(s) in which a student is or has been registered.
• degree(s) received and date(s) of convocation.

(ii) Any other information contained in the official student academic record (including any comments generated under Section 4(a)(iii) but with the exception of the material specifically excluded in Section 4(a)(iv)) shall be released to other persons and agencies only with the student's prior expressed written consent, or on the presentation of a court order, or in accordance with the requirements of professional licensing or certification bodies, of the Ministry of Colleges and Universities for an annual enrollment audit, or otherwise under compulsion of law. Requests granted to any persons or agencies outside the University for access to a student's academic record shall be kept on file within a division. The release of the information concerning alumni and former students contained in the portions of the academic record as defined in Section 3(a)(ii) shall also be governed by the above provisions.

(iii) General statistical material drawn from academic records not disclosing the identities of students, alumni and former students may be released for research and informational purposes authorized by the University by the academic division maintaining those records.

(iv) In the event that a student, alumni or alumnus or a former student is deceased, the executors of his or her estate shall have access to the official student academic record under the same terms as would the individual if he or she were still living.

(f) Refusal of access

The University reserves the right to withhold access to the statements of results and transcripts of students, alumni and former students who have outstanding debts of obligations to the University in accordance with the Policy on Academic Sanctions for Students Who Have Outstanding University Obligations. The University may also choose not to release the official diploma to such persons nor to provide written or oral certifications of degree or their behalf.

5. Custody and retention of official student academic records

(a) Academic records of students are normally under the custodial responsibility of the academic division. Every academic division maintaining official student academic records shall draw up plans for the eventual disposition of their records in consultation with the University Archivist and in accordance with an approved records schedule which is in compliance with this policy.

(b) Those portions of the official student academic record as defined in Section 3(a) shall be maintained permanently. Each academic division's records schedule shall specify the document, form or medium in which these records will be maintained.

(c) Official student academic records preserved in the University Archives because of their archival value shall become open to researchers authorized by the University seventy-five years after a student has ceased to be registered.

6. The University's responsibilities with reference to the official academic records of students, alumni and former students

(a) Students shall be informed of University policy and divisional policies with respect to their official student academic records.

(b) Academic divisions, administrative divisions which handle student academic records and campus organizations shall develop administrative procedures in support of this policy.

(c) Academic records shall be kept at all times under appropriate security.
University Grading Practices Policy

Purpose
The purpose of the University Grading Practices Policy is to ensure:
(a) that grading practices throughout the University reflect appropriate academic standards;
(b) that the evaluation of student performance is made in a fair and objective manner against these academic standards;
(c) that the academic standing of every student can be accurately assessed even when courses have been taken in different divisions of the University and evaluated according to different grade scales.

Application of Policy
The Policy applies to all individuals and committees taking part in the evaluation of student performance in degree, diploma, and certificate credit courses (hereafter referred to as courses).

Amendment to Policy
Amendments to the Policy shall be recommended to the Academic Board.

Changes to the Divisional regulations on grading shall be forwarded to the Committee on Academic Policy and Programs.

Distribution of Policy
A copy of the Grading Practices Policy as well as the description of the grade scales and the substance of divisional regulations indicated in Part II of this Policy shall be published in the Calendar of the division. Similarly, a copy shall be given to all students upon initial registration and to all instructors and others, including teaching assistants, involved in the evaluation of student performance.

The Policy is in three parts: Part I deals with grades, Part II outlines grading procedures to be adhered to in divisional regulations adopted as part of this Policy, and Part III is an administrative appendix available upon request from the Office of the Vice-President and Provost.

PART I: GRADES

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

A grade assigned in a course is not an assessment of standing within a program of studies. To determine the requirements for credit and standing in a program of studies, the academic regulations of the division in which the program is offered should be consulted.

Grades for each course shall be assigned with reference to the following meanings (which may be expanded in the divisional regulations under Part II):
Excellent,
Good,
Adequate,
Marginal,
Inadequate.

Grade Scales
Once a judgement on the performance of the student has been made, the following grade scales are to be used:
(a) the refined letter grade scale A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F;
(b) the numerical scale of marks, consisting of all integers from 0 to 100;
(c) for graduate divisions only, a truncated refined letter grade scale in which FZ replaces the C, D and F grades in (a) above and/or
(d) the scales Honours/Pass/Fail and Credit/No Credit.

Grades vs. Scores
Grades should always be based on the approved grade scales. However, students may find that on any one evaluation they may receive a numerical or letter mark that reflects the score achieved on the test or essay. The cumulative scores may not be directly identified with the final grade. Grades are final only after review by the divisional review committee described below.

Grade Reporting
Grades will be assigned according to the numerical scale of marks referred to in (b) above, and converted to the refined letter grade scale of (a) above. In graduate divisions, grades may be assigned according to the truncated refined letter grade scale of (c) above. The H/P/F/L and CR/NCR scales of (d) above may also be used. However, the grades assigned in a course must all be from the same scale.

All non-grade designators used in reporting course results must correspond to the University-wide standard. A list of the currently approved designators and their meanings is given in the Appendix A.2.

The information in grade reports and transcripts must be communicated to the user, whether within or outside the University, in a clear and meaningful way. To that end, transcripts must include:
(i) an enrolment history, which traces chronologically the student's entire participation at the University;
(ii) a "grade point average" based on a 4-point scale for all undergraduate divisions.
(Note: these calculations should be restricted to courses of a specific size);
(iii) an average grade for each course expressed using the refined letter grade scale.
(Note: these calculations should be restricted to courses of a specific size);
(iv) both the numeric mark and its letter grade equivalent, where possible, for all courses;
(v) course weight values, expressed using a uniform system of values allowing for the relative values needed by each division;
(vi) transfer credits granted;
(vii) academic honours, scholarships and awards sanctioned by the University;
(viii) a comprehensive guide explaining all grades and symbols used on the transcripts.
PART II: GRADING PROCEDURES

Divisional Councils shall forward to the Committee on Academic Policy and Programs changes in their grading procedures. Grading procedures may be adapted to divisional circumstances on the recommendation of the Committee on Academic Policy and Programs, but such procedures must be consistent with the principles in this Policy.

Grades shall be recommended by the instructor to the chair or division head. The grades shall then be reviewed and approved following the divisional review procedure. Grades shall not be reported or released to students as official until the divisional review procedure has been carried out. The divisional review constitutes final approval of grades except when grades are changed on appeal.

II.1 Divisional Review Committee

In each division, a committee chaired by the divisional head or a designee, and where appropriate, an additional committee structure, with the chair (or their designate) of departments or other academic units of divisions serving as chairs shall:

(a) administer the implementation of the University Grading Practices Policy at the divisional level and oversee the general consistency of grading procedures with the division;
(b) approve and administer the University's specific regulations concerning the grade scales or scales to be used, the assignment of non-grade designators for course work, classroom procedures and approved methods of evaluation;
(c) review, adjust and approve course grades recommended by instructors. The grades recommended for any individual student in the professional faculties may be adjusted according to his or her performance in the course or program as determined by the committee. The divisional committee has the final responsibility for assigning the official grade.

II.2 Classroom Procedures

To ensure that the method of evaluation in every course reflects appropriate academic standards and fairness to students, divisional regulations governing classroom procedures must be consistent with the practices below.

(a) As early as possible in each course (and no later than the division’s last date for course enrollment), the instructor shall make available to the class, and shall file with the division or department, the methods by which student performance shall be evaluated. This should include whether the methods of evaluation shall be essays, tests, examinations, etc., the relative weight of these methods in relation to the overall score, and the timing of each major evaluation.

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

(c) Student performance in a course shall be assessed on more than one occasion. No one essay, test, examination, etc., should have a value of more than 85% of the grade. Criteria for exemptions may be determined by the division.

(d) In courses that meet regularly as a class there shall be an examination (or examinations) conducted formally under divisional auspices and worth (alone or in the aggregate) at least one-third of the final grade. Criteria for exemptions may be determined by the division. The relative value of each part of an examination shall be indicated to the student. In the case of a written examination, the value shall be indicated on the examination paper.

(e) Commentary on assessed term work and time for discussion of it shall be made available to students.

(f) At least one term work which is a part of the evaluation of a student performance, whether essay, lab report, review, etc., shall be returned to the student prior to the last date for withdrawal from the course without academic penalty.

(g) Grades shall be based on an equivalent basis in the approved grade scales on the basis of each student’s overall performance.

In formulating their own regulations, divisions may add to items (a) to (g) and may adopt fuller or more specific provisions, for example in place of such terms as “a simple majority” (b), “one-third of the final grade” (d), or in particularizing the evaluation methods referred to in (e) and (f).

II.3 Procedures in the Event of Disruptions

Principles

The following principles shall apply in the event of disruption of the academic program:

(i) The academic integrity of academic programs must be honoured; and

(ii) Students must be treated in a fair manner recognizing their freedom of choice to attend class or not without penalty.

Procedures

(a) The Vice-President and Provost, or the Academic Board, shall declare when a disruption of the academic program has occurred. The Provost shall take steps to inform the University community at large of the changes to be implemented, and will report to the Committee on Academic Policy and Programs regarding the implementation of the procedures and changes to the status of the academic programs.

(b) Individual instructors or multi-section co-ordinators responsible for courses that are disrupted shall determine, as the disruption proceeds, whether any changes to classroom procedures are needed to complete the course.

(c) Changes to the classroom procedures should, where possible, first be discussed with students prior to the class in which a vote of the students present on the proposed changes is to be taken. Changes agreed upon by consent should be forwarded to the department or division with a report on the attendance at the class where the vote was taken.

(d) Where consensus on changes has not been arrived at, or where a vote is not feasible, the instructor, after the class discussion, will provide the division head or chair of the department in multi-departmental faculties, with his or her recommendation, along with the results of any classroom votes. The chair or division head shall then make a decision.

(e) Where classes are not able to convene, the instructor, with the prior approval of the chair in multi-departmental faculties or the division head, shall make changes deemed necessary to the classroom procedures. In the absence of the instructor such changes will be made by the divisional head and require the approval of the Provost. Where courses are to be cancelled, approval of the divisional council is required. If the divisional council cannot meet, approval of the division head, or in the absence of the division head, the approval of the Provost, is required.

(f) Students must be informed of changes to classroom procedures. This may be done by circulating the changes in writing to the class, posting in the departmental and faculty offices, reporting to the divisional council, as well as listing in the campus press.

Should classes resume students must be informed, at class, of any changes made during the disruption.

(g) Where a declared disruption occurs in a specific course after the last date to drop courses for the academic term or session, students who do not wish to complete the course(s) during that term or session may, prior to the last day of classes, withdraw without academic penalty. Such students shall receive a full refund of the course tuition fee.

(h) Where students have not attended classes that are meeting, they nonetheless remain responsible for the course work and meeting course requirements. However, where possible, reasonable extension of deadlines for the course requirements, or provision of make-up tests shall be made and reasonable alternative access to material covered should be provided.

(i) A student who considers that a disruption has unreasonably affected his or her grade in a course may appeal the grade following the procedures as set out in each division.

If the petition is approved, the student’s original grade will be replaced by either an assessed grade or a grade of CR/CNCR, or as deemed appropriate in the particular circumstances.

II.4 Assessment in Clinical and Field Settings

Decisions may make reasonable exceptions to the classroom procedures described above in circumstances such as field or clinical courses where adherence to those procedures is not possible. Nevertheless, it is obligatory that the assessment of the performance of students in
II.5 Grade Review and Approval Process
The following principles and procedures shall govern the grade review and approval process.

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

(b) However, a division may provide broad limits to instructors setting out a reasonable distribution of grades in the division or department. Such broad limits shall recognize that considerable variance in class grades is not unusual. The division may request an explanation of any grades for a course that exceed the limits and hence appear not to be based on the approved grade scales or otherwise appear anomalous in reference to the Policy. It is understood that this section shall only be used when the class size is thirty students or greater. Each division shall make known in the divisional Calendar the existence of any such limits.

(c) The criterion that the Divisional Review Committee shall employ in its evaluation is whether the instructor has followed the University Grading Practices Policy. The Review Committee shall not normally adjust grades unless the consequences of allowing the grades to stand would be injurious to the standards of the University, or the class in general.

(d) Membership on the Divisional Review Committee may include students but should not include members of the divisional appeals committees.

(e) Where grades have been adjusted by a divisional committee, the students as well as the instructor shall be informed. On request, the students or the instructor shall be given the reason for the adjustment of grades, a description of the methodology used to adjust the grades, and a description of the divisional appeal process.

(f) Where a departmental review committee changes course grades, the faculty office shall be so informed. Having done so, the faculty office shall relay this information, upon request, to the students or the instructor with a description as to the reason for the change and the methodology used.

(g) Past statistical data, including drop-out rates, mean arithmetic average, etc., should be provided to the Divisional Review Committee as background information where available. The Committee will not use this information exclusively to judge whether a specific grades distribution is anomalous. Rather, the information should provide part of the basis for an overall review of grades in a division.

(h) Where class grades have been changed, or when the Divisional Review Committee had reservations about the grades, the issue will be taken up with the instructor by the division or department head, with a view to ensuring that the Grading Practices Policy is followed in future.

II.6 Every division shall establish divisional appeal procedures. Students may appeal grades according to the procedures established for that purpose in the division. The appeal may be made whether marks have been altered by the review process or not. These procedures shall be outlined in the divisional Calendar, and available upon request at the faculty or registrar's office.

II.7 Student Access to Examination Papers
(a) All divisions should provide access to copies of the previous years' final examination papers and other years' papers where feasible. Examinations may be granted by an appropriate committee of the division or department.

(b) All divisions should provide students with the opportunity within a reasonable time to review their examination paper where feasible. A recovery fee should be set to cover administrative costs including photocopying.

II.8 Conflict of Interest
Where the instructor or a student has a conflict of interest, or is in a situation where a fair and objective assessment may not be possible, this should be disclosed to the chair or division head who shall take steps to ensure fairness and objectivity.

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Code of Behaviour on Academic Matters

A. Preamble

The concern of the Code of Behaviour on Academic Matters is with the responsibilities of all parties to the integrity of the teaching and learning relationship. Honesty and fairness must inform this relationship, whose basis remains one of mutual respect for the aims of education and for those ethical principles which must characterize the pursuit and transmission of knowledge in the University.

What distinguishes the University from other centres of research is the central place which the relationship between teaching and learning holds. It is by virtue of this relationship that the University fulfills an essential part of its traditional mandate from society, and, indeed, from history: to be an expression of, and by so doing to encourage, a habit of mind which is discriminating at the same time as it remains curious, which is at once equitable and audacious, valuing openness, honesty and courtesy before any private interests.

This mandate is more than a mere pious hope. It represents a condition necessary for free enquiry, which is the University’s lifeblood. Its fulfillment depends upon the well being of that relationship whose parties define one another’s role as teacher and student, based upon differences in expertise, knowledge and experience, though bonded by respect, by a common passion for truth and by mutual responsibility to those principles and ideals that continue to characterize the University.

This Code is concerned, then, with the responsibilities of faculty members and students, not as they belong to administrative or professional or social groups, but as they co-operate in all phases of the teaching and learning relationship.

Such co-operation is threatened when teacher or student forsakes respect for the other—and for others involved in learning—in favour of self-interest, when truth becomes a hostage of expediency. On behalf of teacher and student and in fulfillment of its own principles and ideals, the University has a responsibility to ensure that academic achievement is not obscured or undermined by cheating or misrepresentation, that the evaluative process meets the highest standards of fairness and honesty, and that malevolent or even mischievous disruption is not allowed to threaten the educational process.

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

B. Offences

The University and its members have a responsibility to ensure that a climate which might encourage, or conditions which might enable, cheating, misrepresentation or unfairness not be tolerated. To this end, all must acknowledge that seeking credit or other advantages by fraud or misrepresentation, or seeking to disadvantage others by disruptive behaviour is unacceptable, as is any dishonesty or unfairness in dealing with the work or record of a student.

Wherever in this Code an offence is described as depending on “knowing”, the offence shall likewise be deemed to have been committed if the person ought reasonably to have known.

B.I. It shall be an offence for a student knowingly:

(a) to forge or in any other way alter or falsify any document or evidence required by the University, or to utter, circulate or make use of any such forged or falsified document, whether the record be in print or electronic form;

(b) to use or possess an unauthorized aid or aids or obtain unauthorized assistance in any academic examination or term test or in connection with any other form of academic work;

(c) to persuade another person, or to have another person persuade, at any academic examination or term test in connection with any other form of academic work;

(d) to represent as one’s own any idea or expression of an idea or work of another at any academic examination or term test or in connection with any other form of academic work, i.e. to commit plagiarism (for a more detailed account of plagiarism, see Appendix A1);

(e) to submit, without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course or program of study in the University or elsewhere;

(f) to submit any academic work containing a purported statement of fact or reference to a source which has been concocted.

It shall be an offence for a faculty member knowingly:

(a) to approve any of the previously described offences;

(b) to evaluate an application for admission or transfer to a course or program of study by reference to any criterion that is not academically justified;

(c) to evaluate academic work by a student by reference to any criterion that does not relate to its merit, to the time within which it is to be submitted or to the manner in which it is to be performed.

It shall be an offence for a faculty member and student alike knowingly:

(a) to forge or in any other way alter or falsify any academic record, or to utter, circulate or make use of any such forged, altered or falsified record, whether the record be in print or electronic form;

(b) to engage, alone or in any form of cheating, academic dishonesty or misconduct, fraud or misrepresentation not herein otherwise described, in order to obtain academic credit or other academic advantage of any kind.

A graduate of the University may be charged with any of the above offences committed knowingly while he or she was an active student, when, in the opinion of the Provost, the offence, if detected, would have resulted in a sanction sufficiently severe that the degree would not have been granted at the time that it was.

B.II. Parties to Offences

(a) Every member is a party to an offence under this Code who knowingly:

(i) actually commits it;

(ii) does or omits to do anything for the purpose of aiding or assisting another member to commit the offence;

(iii) does or omits to do anything for the purpose of aiding or assisting any other person who, if that person were a member, would have committed the offence;

(iv) abets, counsels, procures or conspires with another member to commit or be a party to an offence, or
C. Procedures in Cases Involving Students

At both the divisional level and the level of the University Tribunal, the procedures for handling charges of academic offences involving students reflect the gravity with which the University views such offences. At the same time, these procedures and those which ensure students the right of appeal represent the University's commitment to fairness and the cause of justice.

C.I.(a) Divisional Procedures

Note: Where a student commits an offence, the faculty in which the student is registered has responsibility over the student in the matter. In the case of Scarborough (UTNC) and Erindale Colleges (UTM), the college is deemed to be the faculty.

No hearing within the meaning of section 2 of the Statutory Powers Procedure Act is required for the purposes of or in connection with any of the discussions, meetings and determinations referred to in section C.I.(a), and such discussions, meetings and determinations are not proceedings of the Tribunal.

Where an instructor has reasonable grounds to believe that an academic offence has been committed by a student, the instructor shall inform the student immediately after learning of the act or conduct complained of, giving reasons, and invite the student to discuss the matter. Nothing the student says in such a discussion may be used or receivable in evidence against the student.

If after such discussion, the instructor is satisfied that no academic offence has been committed, he or she shall so inform the student and no further action shall be taken in the matter by the instructor, unless fresh evidence comes to the attention of the instructor, in which case he or she may again proceed in accordance with subsection 2.

When the dean or the department chair, as the case may be, has been so informed, he or she shall notify the student to write accordingly, provide him or her with a copy of the Code and subsequently afford the student an opportunity for discussion of the matter. In the case of the dean being informed, the chair of the department and the instructor shall be invited by the dean to be present at the meeting with the student. The dean shall conduct the interview.

Before proceeding with the meeting, the dean shall inform the student that he or she is entitled to seek advice, or to be accompanied by counsel in the meeting, before making, and is not obliged to make, any statement or admission, but shall warn that if he or she makes any statement or admission in the meeting, it may be used or receivable in evidence against the student in the hearing of any charge with respect to the alleged offence in question. The dean shall also advise the student, without further comment or discussion, of the sanctions that may be imposed under section C.I.(b), and that the dean is not obliged to impose a sanction but may instead request that the Provost lay a charge against the student. Where such advice and warning have been given, the statements and admissions, if any, made in such a meeting may be used or received in evidence against the student in any such hearing.

If the dean, on the advice of the department chair and the instructor, or if the department chair, on the advice of the instructor, subsequently decides that no academic offence has been committed and that no further action in the matter is required, the student shall be so informed in writing and the student's work shall be accepted for normal evaluation or, if the student was prevented from withdrawing from the course by the withdrawal date, he or she shall be allowed to do so. Thereafter, the matter shall not be introduced into evidence at a Tribunal hearing for another offence.

If the student admits the alleged offence, the dean or the department chair may either impose the sanction(s) that he or she considers appropriate under section C.I.(b) or refer the matter to the dean or Provost, as the case may be, and in either event shall inform the student in writing accordingly. No further action in the matter shall be taken by the instructor, the department chair or the dean if the dean imposes a sanction.

If the student is dissatisfied with a sanction imposed by the department chair or the dean, as the case may be, the student may refer the matter to the dean or Provost as the case may be, for consideration.

If the student does not admit the alleged offence, the dean may, after consultation with the instructor and the department chair, request that the Provost lay a charge against the student. If the Provost agrees to lay a charge, the case shall then proceed to the Trial Division of the Tribunal.

Secondarily, decanal procedures will not be examined in a hearing before the Tribunal. A failure to carry out the procedures referred to in this section, or any defect or irregularity in such procedures, shall not invalidate any subsequent proceedings of or before the Tribunal, unless the chair of the hearing finds that such failure, defect or irregularity resulted in a substantial wrong, detriment or prejudice to the accused. The chair will determine at the opening of the hearing whether there is to be any objection to an alleged defect, failure or irregularity.

No degree, diploma or certificate of the University shall be conferred or awarded, nor shall a student be allowed to withdraw from a course from the time
of the alleged offence until the final disposition of the accusation. However, a student shall be permitted to use University facilities while a decision is pending, unless there are valid reasons for the dean to bar him or her from a facility. When or at any time after an accusation has been reported to the dean, he or she may cause a notation to be recorded on the student’s academic record and transcript, until the final disposition of the accusation, to indicate that the standing in a course and/or the student’s academic status is under review. A student upon whom a sanction has been imposed by the dean or the department chair under section C.1(d) or who has been convicted by the Tribunal shall not be allowed to withdraw from a course so as to avoid the sanction imposed.

A record of cases disposed of under section C.1(a) and of the sanctions imposed shall be kept in the academic unit concerned and may be referred to by the dean in connection with a decision to prosecute, or by the prosecution in making representations as to the sanction or sanctions to be imposed by the Tribunal, for any subsequent offence committed by the student. Information on such cases shall be available to other academic units upon request and such cases shall be reported by the dean to the Secretary of the Tribunal for use in the Provost’s annual report to the Academic Board. The dean may contact the Secretary of the Tribunal for advice or information on cases disposed of under section C.1 hereof.

Where a proctor or invigilator, who is not a faculty member, has reason to believe that an academic offence has been committed by a student at an examination or test, the proctor or invigilator shall at once inform the student’s dean or department chair, as the case may be, who shall proceed as if he or she were an instructor, by analogy to the other provisions of this section.

The case of alleged offences not covered by the procedures above and not involving the submission of academic work, such as plagiarism or cheating, in cases involving cancellation, recall or suspension of a degree, diploma or certificate, the procedure shall be regulated by analogy to the other procedures set out in this section.

C.1(b) Divisional Sanctions

In an assignment worth ten percent or less of the final grade, the department chair may deal with the matter if:

(i) the student admits guilt; and

(ii) the assignment of a penalty is limited to at most a mark of zero for the piece of work.

If the student does not admit guilt, or if the department chair chooses, the matter shall be brought before the dean.

One or more of the following sanctions may be imposed by the dean where a student admits to the commission of an alleged offence:

(a) an oral or written reprimand;

(b) an oral and/or written reprimand and, with the permission of the instructor, the submission of the piece of academic work in respect of which the offence was committed, for evaluation. Such a sanction shall be imposed only for minor offences and where the student has committed no previous offence;

(c) assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

(d) assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

(e) denial of privileges to use any facility of the University, including library and computer facilities;

(f) a monetary fine to cover the costs of replacing damaged property or missing supplies in respect of which the offence was committed;

(g) assignment of a grade of zero or a failure for the course in respect of which the offence was committed;

(h) suspension from attendance in a course or courses, a program, an academic division or unit, or the University for a period of not more than twelve months. Where a student has not completed a course or courses in respect of which an offence has not been committed, withdrawal from the course or courses without academic penalty shall be allowed.

The dean shall have the power to record any sanction imposed on the student’s academic record and transcript for each length of time as he or she considers appropriate. However, the sanctions of suspension or a notation specifying academic misconduct as the reason for a grade of zero for a course shall normally be recorded for a period of five years.

The Provost shall, from time to time, indicate appropriate sanctions for certain offences. These guidelines shall be sent for information to the Academic Board and attached to the Code as Appendix "C".

C.1(a) Tribunal Procedures

A prosecution for an alleged academic offence shall be instituted by the laying of a charge by the Provost against the accused. This is done where the student does not admit guilt; when the sanction desired is beyond the power of the dean to impose; when the student has been found guilty of a previous offence; or when the student is being accused simultaneously of two or more different offences involving more than one incident.

No charge shall be laid except with the agreement of the dean concerned and of the Provost, after consultation between the Provost and the Discipline Counsel.

A charge shall be in writing, addressed to the accused, signed by or under the authority of the Provost and filed with the Secretary. It shall contain a statement that the student is charged with having committed an offence specified therein, with sufficient particulars of the circumstances to enable the student to identify the alleged act or conduct giving rise to the charge.

Upon receipt by the Secretary of a charge which appears to be in proper form, the member of the Tribunal designated to be the chair of the hearing and the Secretary shall immediately determine and give appropriate notice of a date, time and place for the hearing.

Withdrawal of a student from a course or program of study shall not preclude or affect any prosecution before the Tribunal in respect of an alleged academic offence.
The proceedings at a hearing, including the evidence and the verdict of the panel shall be recorded by the Secretary by means of a tape recording, stenographic reporter or other reliable means.

The procedures of the Tribunal shall conform to the requirements of the "Statutory Powers Procedure Act, Revised Statutes of Ontario, 1990, Chapter 22, as amended from time to time."

The Tribunal may, from time to time, by a majority of its members, make, adopt and modify rules governing its procedures which are not inconsistent with the provisions hereof, and all such rules and modifications shall be reported to the Academic Board for information.

The onus and standard of proof shall be on the prosecution, who must show on clear and convincing evidence that the accused has committed the alleged offence.

The accused shall not be compelled to testify at his or her hearing.

Tribunal structure

The members of the Trial Division of the Tribunal shall consist of a Senior Chair, two Associate Chairs and up to fifteen co-chairs, appointed by the Academic Board.

No presiding member of the Trial Division of the Tribunal shall be a full-time student or a full-time member of the teaching staff or a member of the administrative staff.

The Senior Chair, Associate Chairs and co-chairs shall be legally qualified.

The Senior Chair shall be the chair of the Tribunal and either the Senior Chair, an Associate Chair or a co-chair, as selected by the Secretary, shall preside at trial hearings of the Tribunal.

Trial hearings of the Tribunal involving students registered at Scarborough College shall normally be held on the Scarborough campus of the University and those involving students registered at Erindale College shall normally be held on the Erindale campus of the University.

Duties of the Tribunal

(a) The Tribunal shall,

(i) hear and dispose of charges brought under the Code;
(ii) report its decision for information to the Academic Board;
(iii) make recommendations to the Governing Council as contemplated by the Code;
(iv) advise the Academic Board, from time to time, on policy and procedures with respect to the Code; and
(v) determine its practice and procedures, subject to the provisions hereof.

(b) Where it is considered to be warranted by the circumstances, the chair of a hearing may in his or her discretion award costs of any proceedings at trial, and may make orders as to the party or parties to and by whom and the amounts and manner in which such costs are to be paid.

Hearings in the Trial Division of the Tribunal shall be by a hearing panel composed of three persons, of whom one shall be a student, one shall be a faculty member and the third shall be the Senior Chair, an Associate Chair or a co-chair of the Tribunal.

Membership

The members of each panel (other than the chair) shall be drawn from a pool consisting of at least 15 students who are not also faculty members and at least 15 faculty members who are not also students. The members of such pool shall be appointed by the Secretary, drawn from the various academic divisions and units of the University, and shall serve for a period of two years. The appointments shall be renewable upon invitation by the Senior Chair of the Tribunal.

Panel members for each case shall be selected by the Secretary who shall exercise due discretion in excluding members who may know either the accused or the circumstances of the alleged offence. Generally, student members will not be drawn from the same program of study as the accused. Faculty members from the department in which an offence is alleged to have occurred will be excluded from the panel.

Either the accused or the prosecution may challenge prior to the hearing, and the chair of the hearing may disqualify any prospective panel member for cause which in his or her opinion justifies such disqualification.

At trial hearings of the Tribunal,

(a) the chair of the hearing shall determine all questions of law and has a vote on the verdict and sanction; and
(b) the panel shall determine all questions of fact and render a verdict according to the evidence.

Where, after a charge has been laid by the Provost but before a Tribunal hearing takes place, the accused admits the alleged offence, the Provost may refer the matter either (i) to the dean, who shall impose the sanction(s) that he or she considers appropriate under section 3(1)(b) or (ii) to a panel, in which event the panel may convict the accused without the prosecution having to lead evidence of guilt, and the panel shall impose a sanction or sanctions in accordance with section 25 or 26; provided that before any sanction is imposed, the dean or the panel, as the case may be, shall have afforded the accused an opportunity to offer an explanation and to present arguments and submissions as to sanction.

The verdict of a panel need not be unanimous but at least two affirmative votes shall be required for a conviction. Unless there are at least two affirmative votes for conviction, the accused shall be acquitted.

The sanction or sanctions to be imposed upon conviction at a hearing shall be determined by a majority of the panel members, and the panel shall give reasons for the sanction or sanctions imposed.

If the panel is unable to reach agreement, by a majority of its members, as to the sanction to be imposed, the chair of the hearing shall impose the sanction or set of sanctions which is the least severe of those that the individual members of the panel would impose.
D Surrogate Procedures in Cases Involving Faculty Members

The Academic Board of the University shall decide whether a case involving a faculty member shall be heard by the Tribunal or by any other appropriate body. The Academic Board may appoint a committee to hear the case and to make recommendations to the Tribunal. The Academic Board shall make the decision of the committee final and shall notify the faculty member of the decision in writing. The faculty member shall have the right to appeal the decision of the Academic Board to the Tribunal. The Tribunal shall hear the case and make a decision. The decision of the Tribunal shall be final and shall be notified to the faculty member in writing.

E Appellate Procedures

Any decision of the Tribunal may be appealed to the Appellate Board. The Appellate Board shall consist of the Vice-Chancellor, the Academic Registrar, and the Registrar. The decision of the Appellate Board shall be final and shall be notified to the faculty member in writing.

F Recommendations by the Tribunal

The Tribunal shall make recommendations to the Academic Board regarding any disciplinary action to be taken against the faculty member. The Academic Board shall consider the recommendations of the Tribunal and make a decision. The decision of the Academic Board shall be final and shall be notified to the faculty member in writing.

G Cancellation of Academic Freedom

The Academic Board may, in certain circumstances, cancel the academic freedom of a faculty member. The decision of the Academic Board shall be final and shall be notified to the faculty member in writing.

H Appeal to the Authority

Any faculty member may appeal to the University Council against any decision of the Academic Board or the Tribunal. The appeal shall be heard by the University Council. The decision of the University Council shall be final and shall be notified to the faculty member in writing.

I Right of the University to Maintain Academic Freedom

The University is entitled to maintain academic freedom in its academic activities and to ensure that its academic activities are conducted in accordance with the principles of academic freedom. The University may refuse to grant any faculty member permission to participate in any activity that violates the principles of academic freedom.

J Amendments

These regulations may be amended by the Academic Board with the approval of the University Council. Any amendment shall be notified to the faculty member in writing.
Code of Student Conduct

A. Preface

1. The University of Toronto is a large community of teaching staff, administrative staff and students, involved in teaching, research, learning and other activities. Student members of the University are adherents to a division of the University for the period of their registration in the academic program to which they have been admitted and as such assume the responsibilities that such registration entails.

2. As an academic community, the University governs the activities of its members by standards such as those contained in the Code of Behaviour on Academic Matters, which provides definitions of offenses that may be committed by student members and which are deemed to affect the academic integrity of the University's activities.

3. The University sponsors, encourages and tolerates many non-academic activities of its members, both on its campuses and away from them. These activities, although generally separate from the defined requirements of students' academic programs, are a valuable and important part of the life of the University and of its students.

4. The University takes the position that students have an obligation to make legal and responsible decisions concerning their conduct as, or as if they were, adults. The University has no general responsibility for the moral and social behaviour of its students. In the exercise of its disciplinary authority and responsibility, the University treats students as free to organize their own personal lives, behaviour and associations subject only to the law and to University regulations that are necessary to protect the integrity and safety of University activities, the peaceful and safe enjoyment of University housing by residents and neighbors, or the freedom of members of the University to participate reasonably in the programs of the University and in activities in or on the University's premises. Strict regulation of such activities by the University of Toronto is otherwise neither necessary nor appropriate.

Under some circumstances, such as when a student has not yet reached the legal age of majority, additional limitations on student conduct may apply.

5. University members are not, as such, immune from the criminal and civil laws of the wider political unit to which they belong. Provisions for non-academic discipline should not attempt to shelter students from their civic responsibilities or add unnecessarily to these responsibilities. Conduct that constitutes a breach of the Criminal Code or other statute, or that would give rise to a civil claim or action, should ordinarily be dealt with by the appropriate criminal or civil court. In cases, however, in which criminal or civil proceedings have not been taken or would not adequately protect the University's interests and responsibilities as defined below, proceedings may be brought under a discipline code of the University, but only in cases where such internal proceedings are appropriate in the circumstances.

6. The University must define standards of student behaviour and make provisions for student discipline with respect to conduct that jeopardizes the good order and proper functioning of the academic and non-academic programs and activities of the University or its divisions, that endangers the health, safety, rights or property of its members or visitors, or that adversely affects the property of the University or bodies related to it, where such conduct is not, for the University's defined purposes, adequately regulated by civil and criminal law.

7. Nothing in this Code shall be construed to prohibit peaceful assemblies and demonstrations, lawful picketing, or to inhibit freedom of speech as defined in the University.

8. In this Code, the word "premise" includes lands, buildings and grounds.

9. In this Code, "student" means any person:

(i) engaged in any academic work which leads to the recording and/or issue of a mark, grade or statement of performance by the appropriate authority in the University or another institution; and/or
1. Offences Against Persons

(a) No person shall assault another person sexually or threaten any other person with sexual assault.

(b) No person shall otherwise assault another person, threaten any other person with bodily harm, or knowingly cause any other person to fear bodily harm.

(c) No person shall knowingly cause a condition that unnecessarily endangers the health or safety of other persons.

(d) No person shall threaten any other person with damage to such person’s property, or knowingly cause any other person to lose or damage his or her property.

(e) No person shall engage in a course of vexatious conduct that is directed at one or more specific individuals, and that is based on the race, ancestry, place of origin, colour, ethnic origin, citizenship, sex, sexual orientation, creed, age, marital status, family status, handicap, receipt of public assistance or record of offence of that individual or those individuals, and that is known to be unwelcome, and that exceeds the bounds of freedom of expression or academic freedom as these are understood in University policies and accepted practices, including but not restricted to, those explicitly adopted.

Note: Terms in this section are to be understood as they are defined or used in the Ontario Human Rights Code. Vexatious conduct that is based on sex or sexual orientation is considered an offence under the University’s Policy and Procedures: Sexual Harassment. If the Sexual Harassment Officer believes, after consultation with relevant parties, that a complaint based on sex or sexual orientation would be better handled under the Code of Student Conduct, the Officer may refer the matter to the appropriate head of division.

2. Disruption

No person shall cause by action, threat or otherwise, a disturbance that the member knows obstructs any activity organized by the University of Toronto or by any of its divisions, or the right of another member or members to carry on their legitimate activities, to speak or to associate with others.
9. Unauthorized Possession or Use of Firearms or Ammunition
No person other than a peace officer or a member of the Canadian Forces acting in the course of duty shall possess or use any firearm or ammunition on the premises of the University of Toronto without the permission of the officer of the University having authority to grant such permission.

Note: The President of the University or another senior officer designated by the President has been given the authority to grant such permission for the premises of the University of Toronto under the authority of the Governing Council of the University. The President has designated the Vice-President, Business Affairs, who is the Chief Administrative Officer of the University to exercise this authority. Various officials of institutions federated with the University of Toronto have authority to grant such permission with respect to the premises of the federated institutions.

C. Procedures

1. General

(a) The University shall establish a centrally appointed pool of trained Investigating and Hearing Officers, who shall be available to the divisions, at the discretion of the head of the division, if that is considered appropriate or preferable for any reason.

(b) Each division shall appoint an Investigating Officer and a Hearing Officer, who may be student, staff or faculty members from that division.

(c) Whether the incident is investigated locally or centrally, every effort shall be made to conclude the case through to delivery of a final decision within the University within one year from the alleged incident of misconduct.

(d) Pursuant to the provisions of Section D, interim conditions may be imposed by the head of the division.

(e) For the purposes of confidential and central record keeping, a one-page summary of the outcome of all investigations, whether or not they have proceeded to a Hearing, shall be copied to the Judicial Affairs Officer in the Office of the Governing Council.

(f) Wherever possible and appropriate, informal resolution and mediation shall be used to resolve issues of individual behaviour before resort is made to formal disciplinary procedures.

2. Specific

(a) An Investigating Officer shall be appointed for a term of up to three years by the principal, dean or director (hereinafter called "head") of such faculty, college or school in which students are registered (hereinafter called "division"), after consultation with the elected student leader or leaders of the division, to investigate complaints made against student members of that division. Investigating Officers shall hold office until their successors are appointed.

(b) A Hearing Officer shall be appointed for a term of up to three years by the council of each division to decide on complaints under this Code made against student members of that division. Hearing Officers shall hold office until their successors are appointed.

(c) If the Investigating Officer is unable to conduct an investigation, or the Hearing Officer is unable to conduct a hearing, or where the head of the division believes on reasonable grounds that the appointed officer is inappropriate to conduct the particular investigation or chair a particular hearing, then the head of the division shall seek an appointment from the central pool for that particular case. If the head of the division intends to request either suspension from registration or expulsion from the University as a sanction in a particular case, or if the case appears to the head of the division to require a Hearing Officer with legal qualifications, then the Senior Chair of the University Tribunal may, on the application of the head of the division, appoint a legally qualified person as Hearing Officer for the particular case.
E. Sanctions

The following sanctions or combinations of them may be imposed upon students found to have committed an offence under this Code.

In addition, students found to have committed an offence may be placed on conduct probation for a period not to exceed one year, with the provision that one or more of the following sanctions will be applied if the conduct probation is violated.

1. Formal written reprimand.
2. Order for restitution, rectification or the payment of damages.
3. A fine or bond for good behaviour not to exceed $500.
4. Requirement of public service work not to exceed 25 hours.
5. Denial of access to specified services, activities or facilities of the University for a period of up to one year.

The following two sanctions, which would directly affect a student's registration in a program, may be imposed only where it has been determined that the offence committed is of such a serious nature that the student's continued registration threatens the academic function of the University of Toronto or any of its divisions or the ability of other students to continue their programs of study.

(i) Suspension.
(ii) Expulsion.

A sanction of suspension shall be recorded on the student's academic record and transcript for a period of five years. The following wording shall be used: "Suspended from the University of Toronto for reasons of non-academic misconduct for a period of [length of suspension], [date]."

A sanction of expulsion shall be permanently recorded on a student's academic record and transcript. The following wording shall be used: "Expelled from the University of Toronto for reasons of non-academic misconduct, [date]."

6. Suspension from registration in any course or program of a division or any division for a period of up to one year.
7. Recommendation for expulsion from the University.

Memorandum on the Maintenance and Use of the Records of Non-Academic Discipline Proceedings

1. Keeping of Records

Records must be kept in all cases that have been the subject of an investigation and have resulted in the imposition of a sanction, whether or not the student has waived the right to a hearing. Likewise, the record of the Proceedings of Non-Academic Discipline Hearings must be kept in all cases that have proceeded to a Hearing.

2. Composition of Record

The Record of Proceedings on Non-Academic Discipline cases shall comprise:
(a) the written report of the Investigating Officers, if any;
(b) the Notice of Hearing (including the offense charged);
(c) documentary evidence filed at a Hearing;
(d) the decision of the Hearing Officer and the reasons therefor.

3. Storage of Records

The Records of the Proceedings of Non-Academic Discipline Hearings shall be stored in the office of the head of the division.

4. Records of the Investigating Officer

Where the investigation has not proceeded to a Hearing, the records and notes of the Investigating Officer shall be kept and may have a bearing on the decision to prosecute in a future case. Where a sanction has been imposed, a copy of the letter of sanctions to the student shall be filed, in confidence, with the Judicial Affairs Officer, Office of the Governing Council.
Memorandum of Procedures for Hearings Arising from the Code of Student Conduct

1. Complaints about the alleged commission of any offence under the Code of Student Conduct may be made in writing by any person ("the complainant") to the principal, dean, or director ("the head") of the college, faculty or school ("the division") in which the student or students who are alleged to have committed the offence ("the accused") are or were registered.

2. The head of the division shall consider the written complaint and shall determine if the conduct complained of appears to fall under the Code of Student Conduct. If it does not appear to fall under the Code of Student Conduct, the head may take whatever other action he or she deems appropriate to the circumstances, including communication to the complainant of the conclusion he or she has drawn. Where a student’s conduct comes to light after a student has left the University, the head of the division may decide to proceed, if the seriousness of the allegation warrants such action.

3. If the head of the division considers that the conduct complained of appears to fall under the Code of Student Conduct, he may request the Investigating Officer to conduct a discreet investigation of the case and to make a report to him or her.

4. If, on the basis of the report of the Investigating Officer, the head of the division concludes that the accused may have committed an offence under the Code of Student Conduct, he or she shall have the discretion to request that a hearing take place to determine whether the accused has committed the offence alleged.

5. To initiate a hearing, the head of the division shall give written notice to the accused indicating the nature of the complaint, the offence alleged and setting a date, time and place for a hearing to provide an opportunity for the accused to respond to the allegations made. The notice shall indicate that if the accused does not appear at the hearing, the hearing may proceed in the absence of the accused.

6. The hearing will be chaired by the Hearing Officer, who shall not have been involved in the investigation leading up to the decision to request a hearing, and who shall make a decision on the basis of evidence presented at the hearing.

7. Hearings shall be conducted in an informal manner, in accordance with the principles of natural justice, and the Hearing Officer shall not be bound to observe strict legal procedure. Procedural defects will not invalidate the proceedings unless there has been a substantial wrong or denial of natural justice.
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### Getting To UTSC

**From the 401 take the Moesngside exit South to Military Trail.**

**Turn left on Military Trail, (the first lights South of 401).**

Main Entrance and Drop-Off is on Military Trail, South of Ellesmere Road.

Long Term parking is in UTSC Parking or General Parking 4, North of Ellesmere Road.

Short Term and Visitor Parking is in Lot A, accessed from Main Entrance.