## Changes to the Calendar 2006-2007

The following changes have been made to the Calendar since its publication in March, 2006.

<table>
<thead>
<tr>
<th>Page Number</th>
<th>Change</th>
</tr>
</thead>
</table>
| 33          | Specialist (Co-operative) Program in Anthropology  
Change Co-op Contact to: C. Jairam |
| 35          | Major Program in Anthropology (B.A./B.Sc.)  
Change Requirement 2d) to Requirement 3. |
| 44          | **NEW COURSE**  
ANTC66H3 (Anthropology of Tourism) |
| 46          | ASTA01H3 (Introduction to Astronomy and Astrophysics I: The Sun and the Planets)  
Delete exclusions: AST121H, AST221H & AST222H |
| 46          | ASTA02H3 (Introduction to Astronomy and Astrophysics II: Beyond the Sun and the Planets)  
Delete exclusions: AST221H & AST222H |
| 72          | Major (Co-operative) Program in City Studies  
Change Co-op Contact to: C. Jairam |
| 88          | Specialist (Co-operative) & Major Co-operative Programs in Computer Science  
Change Co-op Contact to: B. Pryslak and delete telephone number. |
| 93          | **NEW COURSE**  
CSCD54H3 (The Business of Software) |
| 103         | Specialist Program in Political Science and Economics for Management Studies  
Delete POLB50H & POLB52H from the Canadian Government options within the Political Science requirements. |
| 104         | ECMA01H3 (Introduction to Microeconomics)  
Delete exclusion: ECMA06H  
Add exclusion: ECO105Y |
| 104         | ECMA04H3 (Introduction to Microeconomics: A Mathematical Approach)  
Delete exclusion: ECMA05H  
Add exclusion: ECO105Y |
| 104         | ECMA05H3 (Introduction to Macroeconomics)  
Delete exclusion: ECMA04H  
Add exclusion: ECO105Y |
| 104         | ECMA06H3 (Introduction to Macroeconomics: A Mathematical Approach)  
Delete exclusion: ECMA01H  
Add exclusion: ECO105Y |
<table>
<thead>
<tr>
<th>Page</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Notes</th>
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</thead>
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<tr>
<td>108</td>
<td>ECMC38H3</td>
<td>(The Economics of Canadian Public Policy)</td>
<td>Add exclusions: (ECO236H), (ECO236Y), ECO336Y</td>
</tr>
<tr>
<td>113</td>
<td>ENGB08H3</td>
<td>(Collisions of Culture and the Emergence of a Liberal Nation)</td>
<td>Delete exclusions: ENG358Y</td>
</tr>
<tr>
<td>113</td>
<td>ENGB09H3</td>
<td>(American Literature from the Civil War to the Present)</td>
<td>Delete exclusion: ENG358Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Add exclusion: ENG250Y</td>
</tr>
<tr>
<td>116</td>
<td>ENGC21H3</td>
<td>(The Victorian Novel to 1860)</td>
<td>Add exclusion: ENG325H</td>
</tr>
<tr>
<td>147</td>
<td>Major (Co-operative) Program in Health Studies</td>
<td>Change Co-op Contact to: C. Jairam</td>
<td></td>
</tr>
<tr>
<td>149</td>
<td>Major Program in Health Studies</td>
<td>Add Environmental Science to the disciplines that may count as science credits.</td>
<td></td>
</tr>
<tr>
<td>151</td>
<td>Specialist Program in History</td>
<td>Change Supervisor of Studies back to: F. Iacovetta (416-287-7152) Email:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:iacovetta@utsc.utoronto.ca">iacovetta@utsc.utoronto.ca</a></td>
</tr>
<tr>
<td>152</td>
<td>Major and Minor Programs in History</td>
<td>Change Supervisor of Studies back to: F. Iacovetta (416-287-7152) Email:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:iacovetta@utsc.utoronto.ca">iacovetta@utsc.utoronto.ca</a></td>
</tr>
<tr>
<td>154</td>
<td><strong>NEW COURSES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HISB57H3</td>
<td>(Sub-Continental Histories: South Asia in the World)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HISB62H3</td>
<td>(Bandits, Burghers, and Bureaucrats: Life in the Mediterranean World, 1500-1800)</td>
<td></td>
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<tr>
<td>160</td>
<td><strong>NEW COURSES</strong></td>
<td></td>
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<tr>
<td></td>
<td>HISC58H3</td>
<td>(Delhi and London: Imperial Cities, Mobile People)</td>
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<tr>
<td></td>
<td>HISC65H3</td>
<td>(Venice and its Empire, 800-1800)</td>
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<tr>
<td></td>
<td>HISD04H3</td>
<td>(Missionaries and Converts in the Early Modern World)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HISD05H3</td>
<td>(Between Two Worlds? Translators and Interpreters in History)</td>
<td></td>
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<tr>
<td>156</td>
<td><strong>NEW COURSE</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>HISD56H3</td>
<td>('Coolie'! Plantations and South Asian Diasporas)</td>
<td></td>
</tr>
<tr>
<td>161</td>
<td>Co-operative Program in Humanities</td>
<td>Change Supervisor of Studies to D. Bennett (416-287-7169) Email:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:bennett@utsc.utoronto.ca">bennett@utsc.utoronto.ca</a></td>
</tr>
<tr>
<td>166</td>
<td>IMCB01H3</td>
<td>(Microbiology Basics)</td>
<td>Change exclusion to: &quot;IMCB01H may not be taken after or concurrently with</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>BGYC17H, (MBY377H) or MGY377H.</td>
</tr>
<tr>
<td>166</td>
<td>IMCB02H3</td>
<td>(Microbial Techniques)</td>
<td>Change exclusion to: &quot;IMCB02H may not be taken after or concurrently with</td>
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<td></td>
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<td></td>
<td>BGYC17H, (MBY376H) or MGY376H.</td>
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<tr>
<td>Page</td>
<td>New Information</td>
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<tr>
<td>167</td>
<td>IMCB08H3 (Biochemistry and Applications I) &lt;br&gt;Change exclusion to: &quot;IMCB08H may not be taken after or concurrently with BGYC12H, BCH310H or (BCH321Y)&quot;.</td>
<td></td>
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<tr>
<td>167</td>
<td>IMCC03H3 (Biochemistry and Applications II) &lt;br&gt;Change exclusion to: &quot;IMCC03H may not be taken after or concurrently with BGYC13H, BCH310H or (BCH321Y)&quot;</td>
<td></td>
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<tr>
<td>177</td>
<td>Major (Co-operative) Program in International Studies &lt;br&gt;Change Co-op Contact to: C. Jairam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>186</td>
<td>Supervisor of Study Elsewhere &lt;br&gt;Add: F. Mugnier (416-287-7143) Email: <a href="mailto:mugnier@utsc.utoronto.ca">mugnier@utsc.utoronto.ca</a></td>
<td></td>
<td></td>
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<tr>
<td>187</td>
<td>Specialist Program in the Education of Teachers in French Program Requirement b (2): &lt;br&gt;Change PLIC35H to PLIC34H</td>
<td></td>
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<tr>
<td>202</td>
<td><strong>NEW COURSE</strong> &lt;br&gt;LINC27H3 (Language and Ethnicity)</td>
<td></td>
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</tr>
<tr>
<td>202</td>
<td>LINC34H3 (Reading and Writing in a Second Language: Theoretical and Pedagogical Issues) &lt;br&gt;Delete entry for LINC34H3. (See PLIC34H3.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>223</td>
<td>Specialist Program in Mathematics and Its Applications &lt;br&gt;Delete Supervisor of Studies S. Tryphonas. (E. Moore will be supervisor for the entire year.)</td>
<td></td>
<td></td>
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<tr>
<td>228</td>
<td>MATC38H3 Introduction to Real Analysis &lt;br&gt;Delete entry (see MATC37H3)</td>
<td></td>
<td></td>
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<tr>
<td>230</td>
<td>Specialist Program in Neuroscience &lt;br&gt;Change supervisor of Studies to: &lt;br&gt;Until June 30, 2006: C. Hasenkampf Email: <a href="mailto:hasenkampf@utsc.utoronto.ca">hasenkampf@utsc.utoronto.ca</a> &lt;br&gt;From July 1, 2006: S. Erb Email: <a href="mailto:erb@utsc.utoronto.ca">erb@utsc.utoronto.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>231</td>
<td>Specialist (Co-operative) Program in Neuroscience &lt;br&gt;Change supervisor of Studies to: &lt;br&gt;Until June 30, 2006: C. Hasenkampf Email: <a href="mailto:hasenkampf@utsc.utoronto.ca">hasenkampf@utsc.utoronto.ca</a> &lt;br&gt;From July 1, 2006: S. Erb Email: <a href="mailto:erb@utsc.utoronto.ca">erb@utsc.utoronto.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>232</td>
<td>Major Program in Neuroscience &lt;br&gt;Change supervisor of Studies to: &lt;br&gt;Until June 30, 2006: C. Hasenkampf Email: <a href="mailto:hasenkampf@utsc.utoronto.ca">hasenkampf@utsc.utoronto.ca</a> &lt;br&gt;From July 1, 2006: S. Erb Email: <a href="mailto:erb@utsc.utoronto.ca">erb@utsc.utoronto.ca</a></td>
<td></td>
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</tr>
<tr>
<td>242</td>
<td>PMDC40H3 (Alterations of Human Body Function II) &lt;br&gt;Delete prerequisite: BGYC33H</td>
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<tr>
<td>242</td>
<td>PMDC42Y3 (Pre-Hospital Care 3: Theory, Lab and Field) &lt;br&gt;Delete prerequisite: BGYC33H</td>
<td></td>
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</tr>
<tr>
<td>Course Code</td>
<td>Course Title and Notes</td>
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</tr>
</tbody>
</table>
| 242 | **PMDC43H3** (Medical Directed Therapeutics and Paramedic Responsibilities)  
Delete prerequisite: **BGYC33H** |
| 242 | **PMDC54Y3** (Pre-Hospital Care 4: Theory, Lab and Field)  
Delete prerequisite: **BGYB10H** |
| 242 | **PMDC56H3** (Primary Care Practitioner Integration and Decision Making)  
Delete prerequisite: **BGYB10H** |
| 247 | **PHLC35H3** (Topics in Early Modern Philosophy: Rationalism)  
Add exclusion: **PHL310H** |
| 247 | **PHLC36H3** (Topics in Early Modern Philosophy: Empiricism)  
Add exclusion: **PHL311H** |
| 248 | **PHLC43H3** (History of Analytic Philosophy I)  
Add exclusion: **PHL325H** |
| 248 | **PHLC44H3** (History of Analytic Philosophy II)  
Add exclusion: **PHL325H** |
| 251 | Co-operative Program in Physical Sciences  
Change Co-op Contact to: N. Heyd and delete telephone number |
| 253 | Specialist Program in Natural Sciences  
Change Supervisor of Studies to: S. Tryphonas *Email: tryphon@utsc.utoronto.ca* |
| 263 | Political Science  
Change Discipline Representative to: J. Teichman  
Change Supervisor of Studies to: Until December 31, 2006: G.Skogstad/From January 1, 2007: P. Kingston |
| 264 | Specialist, Major and Minor Programs in Political Science  
Change Supervisor of Studies to: Until December 31, 2006: G.Skogstad/From January 1, 2007: P. Kingston |
| 265 | Minor Program in Political Science  
Add **POLD87H** to the options in c) International Relations. |
| 265 | Major Program in Public Policy  
Change Supervisor of Studies to: Until December 31, 2006: G.Skogstad/From January 1, 2007: P. Kingston |
| 267 | Major (Co-operative) Program in Public Policy  
| 272 | **POLD01H3** (Research Seminar in Political Science)  
Change exclusion to: "**POLD01H** may not be taken after or concurrently with **POLD78H**." |
| 275 | Specialist Program in Psychology - Supervisor of Studies  
Delete "Until June 30, 2006:" and "From July 1, 2006: TBA" |
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</table>
| 276  | **Major Program in Psychology - Supervisor of Studies**  
Delete "Until June 30, 2006:" and "From July 1, 2006: TBA" |
| 277  | **Minor Program in Psychology & Specialist (Co-operative) Program in Psychology and Its Applications - Supervisor of Studies**  
Delete "Until June 30, 2006:" and "From July 1, 2006: TBA" |
| 282  | **PSYA01H3 & PSYA02H3** (Introductory Psychology: Parts I & II)  
Add exclusion: PSY100H |
| 284  | **PSYB64H3** (An Introduction to Physiological Psychology)  
Change exclusion from PSY291H to PSY290H |
| 290  | **Psychology**  
Add the following to the list of PLI courses:  
**PLIB25H3** (Second Language Learning)  
**PLIC34H3** (Reading in a First or a Second Language)  
**PLID44H3** (Acquisition of the Mental Lexicon) |
| 294  | **Specialist Program in Sociology**  
Change Supervisor of Studies to K. Liddle |
| 294  | **Specialist (Co-operative) Program in Sociology**  
Change Advisor to K. Liddle  
Change Co-op Contact to: C. Jairam |
| 295  | **Major and Minor Program in Sociology**  
Change Supervisor of Studies to K. Liddle |
| 305  | **Visual and Performing Arts Discipline Representative**  
Add: Email: mayo@utsc.utoronto.ca |
| 308  | **VPAA06H3** (Visual and Performing Arts in the Digital Age)  
Change title to: Visual and Performing Arts Management in the Digital Age  
Change Calendar entry to:  
An introduction to the use of computers in the management of visual and performing arts. Demonstrations, workshops and an introductory survey of applications and usage will illustrate current standards and consider future possibilities of the handling of information (including text, numbers, images and sound). Projects will allow opportunities for practical experience.  
Limited enrolment: 40. Priority will be given to students in VPA programs, New Media Studies and Humanities (Co-op)  
Exclusion: **CSCA02H** |
| 313  | **VPHC52H3** (Issues in Contemporary Global Arts)  
Delete the second entry for **VPHC52H3** |
| 322  | **Major Program in Music and Culture & Minor Program in Music History**  
Change Supervisor of Studies to: A. Sanger (416-287-7175) Email: sanger@utsc.utoronto.ca |
<table>
<thead>
<tr>
<th>327</th>
<th><strong>VPAS61H3</strong> (Painting I)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delete corequisite: <strong>VPAS70H</strong> or (<strong>VPASB70H</strong>) or (<strong>VPASAB70H</strong>)</td>
</tr>
<tr>
<td>328</td>
<td><strong>VPASB76H3</strong> (Electronic Media)</td>
</tr>
<tr>
<td></td>
<td>Add: Limited enrolment: 15</td>
</tr>
<tr>
<td>328</td>
<td><strong>VPASB76H3</strong> (Painting III)</td>
</tr>
<tr>
<td></td>
<td>Change prerequisite from: <strong>VPASB62H</strong></td>
</tr>
<tr>
<td></td>
<td>To: <strong>VPAS61H, VPASB62H</strong> and one other course at the B-level in VPS</td>
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<tr>
<td>331</td>
<td>Major Program in Women’s Studies</td>
</tr>
<tr>
<td></td>
<td>Add the following new courses to the options in Requirement 6:</td>
</tr>
<tr>
<td></td>
<td><strong>HISD56H</strong> ('Coolie'! Plantations and South Asian Diasporas)</td>
</tr>
<tr>
<td></td>
<td><strong>WSTC18H</strong> (Women and Family in South Asia)</td>
</tr>
<tr>
<td>333</td>
<td><strong>NEW COURSE</strong></td>
</tr>
<tr>
<td></td>
<td><strong>WSTC18H3</strong> Women and Family in South Asia</td>
</tr>
<tr>
<td>344</td>
<td>In-course Scholarships and Awards</td>
</tr>
<tr>
<td></td>
<td>After the entry for the University of Toronto Scarborough Honours List, add the following:</td>
</tr>
<tr>
<td></td>
<td>The Harvey Babiak Award in Financial Accounting</td>
</tr>
<tr>
<td></td>
<td>Awarded to a student completing the third year of the specialist program in</td>
</tr>
<tr>
<td></td>
<td>Management with the highest average (at least A minus) of grades achieved in</td>
</tr>
<tr>
<td></td>
<td><strong>MGTC07H</strong> and <strong>MGTC08H</strong>. Donated by KPMG.</td>
</tr>
<tr>
<td>385</td>
<td>Code of Behaviour on Academic Matters</td>
</tr>
<tr>
<td></td>
<td>II.8 Conflict of Interest</td>
</tr>
<tr>
<td></td>
<td>Delete (d) to (h).</td>
</tr>
</tbody>
</table>

*Published Wednesday March 14th, 2007*  Section last updated Tue Nov 28, 2006
University of Toronto Scarborough

Calendar

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


2006/2007

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 2006/07 academic year.

Leading research, outstanding faculty, and vibrant student life define our campus community. U of T Scarborough offers interdisciplinary and co-op learning opportunities, the University of Toronto’s only bachelor of business administration degree, joint programs with Centennial College, and a new master’s degree in environmental science. More than ever, students and faculty from around the world are choosing the U of T Scarborough experience.

In our more than 40 year history, we have grown from a small college of 500 students and 16 faculty members to nearly 10,000 students and 600 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. In the coming year, we will see construction begin on our sixth new building. The new science building, scheduled to open in spring 2008, will provide vibrant, collaborative space for interdisciplinary teaching and research in physical and life sciences.

We have welcomed the opportunities and challenges presented by the recent growth of our campus, especially as a means to enhancing the student experience. I invite you to take advantage of the many opportunities for intellectual and personal growth available to you here at U of T Scarborough. I wish you a very rewarding year.

Kwong-loi Shun
Principal, University of Toronto 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 resolve commitment to the principles of equal opportunity, equity and justice.

THE UNIVERSITY COMMUNITY

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

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

The University values its graduates as life-long members of the University community who make significant contributions to its ongoing life and reputation. The University recognizes that in the foreseeable future the majority of its funding will come from public sources, and thanks the people of Ontario and of Canada for this support.

Statement on Human Rights

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

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

University of Toronto Scarborough: Past and Present

Founded in 1964 as a constituent college of the Faculty of Arts and Science, the University of Toronto Scarborough is situated on a park-like campus in the eastern edge of the city.

The first full-time students enrolled in 1965 in temporary quarters on the St. George campus, moving to the current site when the original buildings opened in January 1966. Designed by Toronto architect John Andrews, the buildings won immediate international acclaim for their striking architecture.

1973 saw the opening of the Bladen Building, housing classrooms, offices, and athletic facilities, and the Student Village, a complex of townhouse residences. Campus development continued throughout the 1980's with the Vincent W. Bladen Library, a Soil Erosion Research Laboratory, and a large addition to the original Student Village. In 1990 the West Village opened, followed by the NSNsparetime Child Care Centre and the Leghia Lee Brownie Studio Theatre.

In anticipation of unprecedented enrolment growth, in 2002 U of T Scarborough began the greatest capital expansion program since its opening. Three new facilities opened in 2003: the Academic Resource Centre (ARC), housing greatly expanded library facilities, a digital library, teaching and learning services, abundant student study space and a 500-seat lecture theatre; Jean Foley Hall, an apartment style residence for 230 students; and the Doris McCarthy Gallery.

In the Fall of 2004 the University of Toronto Scarborough celebrated its 40th Anniversary and opened a new, state-of-the-art Management Building and the campus's first Student Centre. In 2005, the Arts and Administration building was officially opened and plans were underway for a new Science Building.

Since 1972 U of T Scarborough has been a separate division of the University, and in 2002 reorganization of the campus administrative structure made the Scarborough Principal also a Vice President of the University.

The campus was the first division in the University to adopt a credit system and offers the University's only formal co-operative programs. The Early Teacher Projects in the Department of Physical and Environmental Sciences and the Department of Humanities guarantee successful graduates admission to the Ontario Institute for Studies in Education/University of Toronto.

In 2000, Scarborough was granted the right to offer the only U of T programs leading to the Bachelor of Business Administration degree (B.B.A.) and in 2002 it began offering unique programs in collaboration with Centennial College. Beginning with the 2003 summer session, U of T Scarborough started operating on a trimester system, which enhanced opportunities for year-round study as well as facilitated its growing co-op programs.

U of T Scarborough faculty, many internationally recognized for their research and scholarship, also teach courses and train graduate students on both the U of T. Scarborough and St. George campuses. The well-appointed research laboratories, high level of technical services, relatively small size and the diversity of the faculty foster an ideal environment for intellectual exchange and development.

U of T Scarborough students have full and expanding facilities on their own campus; they also enjoy access to the resources of the University as a whole. Regular events at the campus include concerts, drama productions, and literary readings. The prestigious Watts Lectures have brought such distinguished speakers as Nobel Prize winner Lester Pearson, and theologian Han Jin to campus. Intramural athletics and recreation, a wide variety of student clubs and cultural groups, and a campus newspaper and radio station provide some of many opportunities for full involvement in student life.
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 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 synthesize and interpret information in coherent forms of written expression.

Some disciplines have identified writing-intensive courses which aim expressly at enhancing a student’s writing ability. Others have adopted their own innovative ways of assisting students to develop and improve their writing skills. Specialized 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 Poets (Programs of Study)

The program 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-requisites, 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 its students are qualified to complete the programs to which they are admitted, and to arrive at 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.feas.utoronto.ca

7. 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 Scarborough is a separate faculty of the University and that rules covering students registered at University of Toronto Scarborough may differ from those elsewhere in the University.

8. It is the responsibility of students to see that their academic programs meet University of Toronto 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 Scarborough. The University of Toronto Scarborough reserves the right to change without notice any information contained in this Calendar, including any rule or regulation. The publication of information in this Calendar does not bind the University to the provision of courses, programs or facilities as listed herein.

Go to www.uts.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. Email

The University of Toronto Scarborough’s primary method of communication with students is email. Therefore, students should ensure that their email is ROIS is accurate.

12. The University of Toronto 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>ROSI 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>

For ROSI hours on deadline dates, go to [http://www.rosi.utoronto.ca/roshi.htm](http://www.rosi.utoronto.ca/roshi.htm)

#### 2006 Summer Session

<table>
<thead>
<tr>
<th>Date</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 8</td>
<td>Classes begin in Y courses.</td>
</tr>
<tr>
<td>May 22</td>
<td>Victoria Day → University closed.</td>
</tr>
<tr>
<td>June 11</td>
<td>Last day to add Y and F courses.</td>
</tr>
<tr>
<td>June 19</td>
<td>Last day of classes in F courses.</td>
</tr>
<tr>
<td>June 20</td>
<td>Last day for submission of term assignments in F courses.</td>
</tr>
<tr>
<td>July 3</td>
<td>Canada Day holiday → University closed.</td>
</tr>
<tr>
<td>July 4-7</td>
<td>Reading Week. (Classes continue on other campuses.)</td>
</tr>
<tr>
<td>July 10</td>
<td>Classes resume in Y &amp; S courses.</td>
</tr>
<tr>
<td>July 23</td>
<td>Last day to drop S courses.</td>
</tr>
<tr>
<td>July 31</td>
<td>Last day to drop Y courses without academic penalty.*</td>
</tr>
<tr>
<td>August 4</td>
<td>Last day of classes and last day for submission of term assignments</td>
</tr>
<tr>
<td></td>
<td>in S &amp; Y courses EXCEPT courses that normally meet on a Monday.</td>
</tr>
<tr>
<td>August 7</td>
<td>Civic holiday → University closed.</td>
</tr>
<tr>
<td>August 8</td>
<td>UTSC Monday: Last day of classes and last day for submission of term</td>
</tr>
<tr>
<td></td>
<td>assignments in S &amp; Y courses that normally meet on a Monday.</td>
</tr>
<tr>
<td>August 9-11</td>
<td>Study Break.</td>
</tr>
<tr>
<td>August 12-24</td>
<td>Final examinations in Y &amp; S courses.</td>
</tr>
<tr>
<td>August 15</td>
<td>UTSC - UTSC Exams.</td>
</tr>
<tr>
<td>November 13-16</td>
<td>Last day to confirm intention to graduate at the Fall Convocation.</td>
</tr>
</tbody>
</table>

* After this date grades are recorded on transcripts whether course work is completed or not (with a ‘0’ assigned for incomplete work) and they are calculated into GPAs.

#### 2006 Fall Session

<table>
<thead>
<tr>
<th>Date</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 4</td>
<td>Labour Day → University closed.</td>
</tr>
<tr>
<td>September 11</td>
<td>Classes begin in F and Y courses.</td>
</tr>
<tr>
<td>September 24</td>
<td>Last day to add F and Y courses.</td>
</tr>
<tr>
<td>October 9</td>
<td>Thanksgiving Day → University closed.</td>
</tr>
<tr>
<td>November 19</td>
<td>Last day to drop F courses without academic penalty.*</td>
</tr>
<tr>
<td>December 4</td>
<td>Last day of classes in F courses. Last day for submission of term</td>
</tr>
<tr>
<td></td>
<td>assignments in F courses.</td>
</tr>
<tr>
<td>December 5-8</td>
<td>Study Break.</td>
</tr>
<tr>
<td>December 9-21</td>
<td>Final examinations in F courses. 2006 Summer deferred</td>
</tr>
<tr>
<td></td>
<td>examinations.</td>
</tr>
<tr>
<td>December 22-January 3</td>
<td>December break → University closed.</td>
</tr>
<tr>
<td>February 15</td>
<td>Last day to confirm intention to graduate at the Spring</td>
</tr>
<tr>
<td></td>
<td>Convocation.</td>
</tr>
</tbody>
</table>

#### 2007 Winter Session

<table>
<thead>
<tr>
<th>Date</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 8</td>
<td>Classes begin in S courses and resume in Y courses.</td>
</tr>
<tr>
<td>January 24</td>
<td>Classes resume in S and Y courses.</td>
</tr>
<tr>
<td>February 15</td>
<td>Last day to confirm intention to graduate at the Spring Convocation.</td>
</tr>
<tr>
<td>February 18</td>
<td>Last day to drop Y courses without academic penalty.*</td>
</tr>
<tr>
<td>February 19-23</td>
<td>Reading Week → No classes held.</td>
</tr>
<tr>
<td>February 26</td>
<td>Classes resume in S and Y courses.</td>
</tr>
<tr>
<td>March 25</td>
<td>Last day to drop S courses without academic penalty.*</td>
</tr>
<tr>
<td>March 5</td>
<td>Last day of classes in S &amp; Y courses and last day for submission of</td>
</tr>
<tr>
<td></td>
<td>term assignments in S &amp; Y courses EXCEPT courses that normally meet</td>
</tr>
<tr>
<td></td>
<td>on a Friday.</td>
</tr>
<tr>
<td>April 5</td>
<td>Good Friday → University closed.</td>
</tr>
<tr>
<td>April 9 (Monday)</td>
<td>UTSC Friday: Last day of classes in S &amp; Y courses and last day for</td>
</tr>
<tr>
<td></td>
<td>submission of term assignments in S &amp; Y courses that normally meet</td>
</tr>
<tr>
<td></td>
<td>on a Friday.</td>
</tr>
<tr>
<td>April 10-13</td>
<td>Study Break. (Classes continue on other campuses.)</td>
</tr>
<tr>
<td>April 14-1 May 1</td>
<td>Final examinations in S and Y courses.</td>
</tr>
<tr>
<td>June TBA</td>
<td>UTSC Spring Convocation. Check &quot;Ceremony Dates&quot; at</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.utoronto.ca/convocation">www.utoronto.ca/convocation</a></td>
</tr>
</tbody>
</table>

* After this date grades are recorded on transcripts whether course work is completed or not (with a ‘0’ assigned for incomplete work) and they are calculated into GPAs.

### Examination Schedules

Examination schedules are posted on the web at [http://www.atsc.utoronto.ca/register](http://www.atsc.utoronto.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

**Note:** Examinations may be held on any day of the week. Every effort will be made to avoid scheduling them on Sundays. However, UTSC reserves the right to do so if necessary.
Officers of the University of Toronto

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

Officers of the University of Toronto Scarborough

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

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

Vice-Principal, Research and Graduate Studies
J. Coleman, Ph.D.

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

Associate Dean
N. Cheng, B.Sc.

Assistant Principal (Business and Administration) & Chief Administrative Officer
K. McLean, B.A., M.B.A.

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

Assistant Principal (Academic) & Director of the Office of the Vice-President & Principal
L. Lewis, B.A., M.I.S.

Assistant Principal (Advancement) & Executive Director of Advancement
P. Oaimst-Scott, B.Sc.

Special Advisor to the Principal on Diversity and Outreach
S. Law, B.S., M.S., Ph.D.

Special Advisor to the Principal on Equity Issues
A. Sevore, B.A., M.A., Ph.D.

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

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

Chair, Department of Management
M. Krahlinsky, B.S., M.Phil., Ph.D.

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

Chair, Department of Physical & Environmental Sciences
D. Cormack, B.Sc., M.A., Ph.D.

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

Director of Recruitment & Registrar

UTSC Departmental Structure

The University of Toronto 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
- Paramedicine
- Psychology

Department of Management:
- Economics for Management Studies
- Management

Department of Physical & Environmental Sciences:
- Anatomy
- 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: 416-287-7560
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: 416-287-7595
Math & Statistics Help Centre: 416-287-5668
Cultural Affairs: 416-287-7076
Donor McCarthy Gallery: 416-287-7007
ARK Website: http://www.arts.utoronto.ca/~arkweb/

Academic Resources (located in the Academic Resource Centre) is an innovative academic support department that brings together Library Services, Computing and Networking Services, Teaching and Learning Services, Cultural Affairs and the Donor McCarthy Gallery. All provides co-ordinated and comprehensive learning, research, technology and teaching services to UTSC students and faculty.
Student Services

Library Services

Website: http://library.utsa.utoronto.ca

The library 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 offers many services to assist students with their research. In particular, Research at a librarian offers a one-on-one appointment to provide students with personalized research assistance. 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 items, both electronic and print, are available through short-term loan. Library materials held outside UTSC are just a click away through the Resource Sharing Services.

Teaching and Learning Services

Website: http://tls.utsa.utoronto.ca

TLS works with students, faculty and staff to promote, support and enhance teaching and learning at UTSC. For students, TLS provides Academic Learning Support Services. These services address a diversity of student needs by supporting the student learning process and 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 seminars, in-course presentations, support for foundations courses in the disciplines and online resources.

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. Website: http://tls.utsa.utoronto.ca/students/default.htm

For teaching assistants, TLS provides an annual TA conference, teaching consultations and a program of seminars and workshops which lead to a certificate.

TLS assists faculty with all aspects of curriculum design and implementation, and supports innovative faculty projects that facilitate improved learning outcomes. Services include an annual faculty orientation program, teaching consultations, lunch-time lecture series, teaching grants and awards, and publications on teaching and learning, and support for teaching and learning scholarship.

Computing & Networking Services

Website: http://cns.utsa.utoronto.ca

CNS 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. CNS 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.utsa.utoronto.ca).

Student Services

Office of Student Affairs and Services

Student Affairs and Services supports student success. We strive to cultivate the intellectual and personal development of students within a community based on principles of mutual respect and inclusion.

The Student Affairs and Services division includes the following Departments:

- Academic Advising and Career Centre
- Accessibility Services
- Health and Wellness Centre
- International Student Centre at UTSC
- Physical Education and Athletics
- Office of the Registrar
- Office of Student Affairs
- Student Housing and Residence Life

The Office of Student Affairs is a positive space environment that provides official recognition to over 100 student clubs, advisors and seeks advice from student societies and the Council on Student Services (CSS) and advocates on issues of student concern to the Vice-President & Principal. The office offers support for a variety of initiatives, assists students in academic or personal difficulty, offers guidance to students planning events and responds to student queries and referrals.

Programs & Services include:

- The Student Mentorship Program
- The Explore UT Students Passport Program
- Student Advocacy
- Orientation Activities
- Student Group Recognition
- Focus Groups and Roundtable Discussions
- myUTSC Website – www.utsa.utoronto.ca/staff

Contact Information:

Office of Student Affairs and Services
Student Centre, SL-137
Phone: 416-287-7650
Email: staff@utsa.utoronto.ca
Website: www.utsa.utoronto.ca/staff

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 are available.

Career Centre Online: exclusive electronic job postings for UT students

Special events, such as the Professional and Graduate Schools Fair and the Employ Your Horizons: Volunteer and Internship Fair

An interactive website: www.utsa.utoronto.ca/career counselling

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

Financial Aid & Awards

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.


Website: http://www.utsa.utoronto.ca/finance
Register's Office
The Register'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, re-enrollment for those students who are returning after suspension or a 12-month absence. We are located in Room A AA42 of the newest Arts and Administration Building. Our telephone number is 416-287-7961. For office hours see our website.

• Interactive FAQ service at: http://www.ustc.utoronto.ca/asktme
• Website at: http://www.ustc.utoronto.ca/register

Health & Wellness Centre
Hours: Monday - Friday 9:00 a.m. - 5:00 p.m.
Room#: SI, 270 (Student Centre)
Telephone#: 416-287-7965
E-mail: health-services@ustc.utoronto.ca
Website: http://www.ustc.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 these free services:

• 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 UHIP cards here.

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

• Health Promotion: Aimed at supporting healthy life style choices, it is an integral part of the services, and the staff often 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. - 5:00 p.m.
Your child can be as close as your next door hall at N’sheemaehn pronounced Noh-shee-mahn 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 34 children birth to five years of age. Every day, children learn through play in a professional, nurturing, stimulating and safe environment. Children develop co-operative, empathetic, and negotiating skills and strategies to thrive today, and throughout their lifetime.
Meals and snacks are provided by an on site cook, 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, Joanne Quinn at 416-287-7624.
E-mail: childcare@ustc.utoronto.ca
Web-Site: http://www.ustc.utoronto.ca/-childcare/

Physical Education & Athletics – Recreation Centre
Hours: Monday - Friday: 7:45 a.m. - 10:00 p.m.
Saturday - Sunday: 8:00 a.m. - 6:00 p.m.
(Hours are adjusted hours during exam periods, Christmas holidays & summer months.)
Main Office: R247
General Information: 416-287-7090
E-mail: phsys@ustc.utoronto.ca
Website: http://www.ustc.utoronto.ca/-phys-ed/
Our mission 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\" and the new Cardio Theatre room; The Paladium Gymnasium - a double 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; two multi-purpose outdoor playing fields and eleven outdoor tennis courts in the valley; locker/shower areas - including men\’s and women\’s; athletic service counter offering program and membership information as well as playing equipment rentals and various supplies; athletics lounge - table tennis.

University Police Services
Office Location: S-304 (Sciences Wing)
Emergency: 416-287-7333
General: 416-287-7398

E-mail: police@ustc.utoronto.ca
Website: www.ustc.utoronto.ca/police/

UTSC Police Patrol (formerly Walk Safer): 416-287-7022

Student Crime Stoppers: www.ustc.utoronto.ca/crimestoppers

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 emergency and crimes occurring on the Scarborough campus and should be notified immediately of any situation that jeopardizes the safety of any community member, or that threatens or disrupt the operations of the University.

UTSC Police should be informed of ALL matters involving threats to personnel safety and security, violations of federal, provincial or municipal laws or University policies.

Examples of these would include:
- attempts to injure others or self
- medical emergencies
- alcohol related emergencies
- threats
- assaults
- noise complaints
- damage to property
- theft of property
- possession of drugs or weapons
- any other situation that looks suspicious or causes concern.
Student Residences

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

Our community is supported by Residence Advisors, senior students living in residence, who serve as a community support network that strives to make the residence environment enjoyable, relaxing, and conducive to learning. Other important student leader groups include Academic Mentors, LINKS, and Student Residence Council.

Clustered in two attractively landscaped areas, our fully furnished townhouses and apartments with well-equipped kitchens, are located minutes from the academic buildings and the Residence Centre (RC), our large, furnished common area. There are 114 self-contained townhouses and 55 self-contained apartments, accommodating 767 students with four to six students in each house and four students in each apartment suite. Single and shared room accommodations are available. Houses and apartments are assigned to either all female or all male students.

Common laundry rooms are available throughout the residences. Five houses and one apartment are specially designed as barrier-free accommodations for students with accessibility requirements.

Residence is guaranteed to all full-time first-year students who are offered admission by July 1, and who respond to all deadlines and meet all deposit requirements. Part-time students and those who receive late offers are advised to contact the Housing Office for further information although there is no guarantee that they will receive accommodation on campus.

Accommodation is available for fall, winter, and summer. We encourage you to come and visit us during the summer to tour the residences and see a townhouse or apartment.

For more information, contact:
Studsents Housing and Residence Life
University of Toronto Scarborough
1265 Military Trail
Toronto, ON, M1C 1A4
Telephone: 416-287-7365
Fax: 416-287-7067
E-mail: residences-officer@utsc.utoronto.ca
Web site: www.utsc.utoronto.ca/residences

Sexual Harassment Education, Counselling and Complaiant Office

The University's Sexual Harassment Policy covers harassment based on sex and sexual orientation and applies to students, staff and faculty members. The University of Toronto does not tolerate any form of sexual harassment and is actively endeavouring to provide an environment free of it. All forms of sexual harassment, from verbal abuse to unwanted touching to homophobic insult are covered by the University's policy. The Sexual Harassment Office provides education to the community as well as administers the formal complaint procedure and offers non-judgmental advice and counsel to those involved in the complaint process. Contacting the Sexual Harassment Office is not a commitment to filing a complaint; people can contact the office on an anonymous basis simply for advice.

All complaints and requests for information are kept completely confidential unless the individuals involved approve otherwise. Members of the University of Toronto Scarborough may arrange an appointment at UTSC with the Sexual Harassment Officer or may go to the Student Centre. George campus, whichever is more convenient. For an appointment, information, to arrange an appointment or to file a complaint, contact the Sexual Harassment Office, University of Toronto, 400 Queen's Avenue (13th Floor), Toronto, Ontario, M5S 1L7 telephone 416-978-3903.

AccessAbility Services

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

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

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

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

The University will provide the members of its community with opportunities for education and access to information regarding disability and the University's policies on disability.

At the same time, the University will endeavour to protect the individuals' privacy, confidentiality and autonomy.

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

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

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

Responsibility of Students Who Have Disabilities

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

AccessAbility Services

Services are provided to students who have a 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.
 Degrees

University of Toronto Scarborough students may earn an Honours Bachelor of Arts, an Honours Bachelor of Science or a Bachelor of Business Administration degree after completing the appropriate requirements listed below. Students who first registered at UTSC prior to the 2004 Summer Session may elect to receive a B.A. or a B.Sc. degree after having completed the requirements for a three-year (fifteen credit) degree.

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 1.60.

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 1.60.

Note: Only Programs offered by the University of Toronto 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 POSts) 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 Scarborough students who have completed at least ten full credits while registered at University of Toronto 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 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.
Three-Year Degree
UTSC has discontinued the three-year degree. Students registered at UTSC prior to the 2004 Summer Session may still choose to complete a three-year degree. To qualify for a three-year degree, these students must:
1. Pass at least fifteen full credits.
2. Complete the requirements of a Major Program or two Minor Programs. Combinations of Programs used to meet this requirement must include at least eight different full credits.
3. Earn a cumulative grade point average of at least 1.66.

Where students use two Minor Programs to satisfy the requirements of a three-year degree, in order to receive a B.Sc., both must be in the sciences.

Upgrading Three-Year Degrees
Students who have graduated with a three-year degree may still choose to complete the requirements of the Honours degree. A second degree will not be conferred but completion of the Honours degree requirements will be noted on the student's transcript. Students who upgrade a three-year degree to an Honours degree may exchange the diploma for an Honours diploma of the same kind, e.g. a three-year B.Sc. may only be replaced by an Honours B.Sc. diploma. Students who have received a three-year degree and are in the final year of the Honours degree should notify the Registrar's Office through ROSI or by means of a confirmation of graduation form by the deadline listed in the Sessional Dates section of this Calendar.

Students who first registered at UTSC before the 1989 Summer Session
Students who first registered at the University of Toronto Scarborough before the 1989 Summer Session may, if they wish, complete the degree requirements outlined in the 1989-90 Calendar. Students who first registered before the 1980 Summer Session may, if they wish, complete the degree requirements outlined in the 1979-80 Calendar. For these students, the type of degree is determined by the number of science credits completed.

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

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

Certificate Program in Business
Students in this program must complete the following in order to qualify for the Certificate in Business:
1. Pass 6.0 full credits in Management and Economics for Management Studies, including ECON250H1, ECON251H1 and ECON250H1 or ECON251H1.
2. Earn a cumulative grade point average of at least 2.66.

Students in their graduating session who intend to take part in the next Convocation must notify the Registrar's Office of their intention either through ROSI or on a confirmation of graduation form by the deadline listed in the Sessional Dates section of this Calendar.

University of Toronto Scarborough certificate students will graduate with honours if their cumulative grade point average is 3.20 or better.

Non-Degree Students
"Non-degree students" are students registered in degree courses at the University of Toronto Scarborough:
• who are not proceeding towards a University of Toronto degree or Certificate.
• 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 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 UTSC 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 enrichment Programs designed to integrate related, practical experience with regular University studies. All Co-operative Programs are either Specialist or Major Programs and may be taken only as part of a four-year degree. Major Co-operative Programs must be combined with another Major Program. Academic credits associated with the successful completion of work-term requirements are additional to the 20.0 normally required for a degree. For this reason, some Co-operative Programs may take up to five years to complete.
Joint Programs

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

Course selection and registration for Programs of study

1. Students are responsible for ensuring that their course selection will enable them to complete the requirements of their Program(s) by the time they complete their other degree requirements. In certain Programs, approval by the supervisor of some or all courses is necessary. In all Programs, the supervisor is available for advice concerning Program requirements and course selection.

2. While students with fewer than 4.0 credits are not required to select a Program, they should, when selecting their courses, consider carefully the requirements of any Programs they may later choose to follow. Supervisors, instructors in A-level courses and academic advisors may be consulted for assistance.

3. Students who have registered in a Program should consult annually with the supervisors of their Programs to ensure that their course selection will meet Program requirements.

4. Students must register in their Programs following the session in which they attain their fourth full credit.

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

Program Transfers

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

Certification of completion of Programs

Completion of Programs is certified when the degree is conferred. Certification is given only for University of Toronto Scarborough programs. Students in their final year who have conferred their intention to graduate at the next Convocation or who have confirmed that they are about to complete an upgraded degree do not have to request certification of completion of their Program.

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

Regulations concerning Programs of study

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

2. Students may register in no more than one limited enrolment Specialist Program at any one time.

3. Students may register in no more than one Co-operative Program at any one time.

4. Where a student completes the requirements of a Minor Program and subsequently chooses to complete a Major or Specialist Program in the same area the student may use the courses already accredited to the Minor Program to fulfill the requirements of the Major or Specialist Program. Upon successful completion of the additional requirements, any previous certification of the Minor Program will be superseded on the student’s transcript by certification of the Major or Specialist Program.

Where a student completes the requirements of a Major Program and subsequently chooses to complete a Specialist Program in the same area, the student may use the courses already accredited to the Major Program to fulfill the requirements of the Specialist Program. Upon successful completion of the additional requirements, any previous certification of the Major Program will be superseded on the student’s transcript by certification of the Specialist Program.

Supervisors have the authority to deal with special circumstances concerning Program requirements. They may:

- accredit Program requirements, courses taken on other campuses of this University or at another University; 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 exception form.

Students should note that certain Programs will require them to take some of their courses on the St. George Campus. However, only University of Toronto Scarborough Programs may be used to meet degree requirements.

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

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

Registration in Programs which have been Withdrawn

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. Students 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 Services website at www.fswa.utoronto.ca for further information.

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

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

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<tr>
<th>Area</th>
<th>Department</th>
<th>Program</th>
<th>Type</th>
<th>Degree</th>
<th>Co-op</th>
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<td>Medical Anthropology</td>
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<td>Astronomy</td>
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For more information, visit the University of Toronto Scarborough website at www.fswa.utoronto.ca.
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<td>Chemistry</td>
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<td>Pharmacology</td>
<td>Specialist</td>
<td>BSc</td>
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<td>Philosophy</td>
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</table>

See also Management (Management & Humanities)
### Co-operative Programs

#### General Information

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

No student may be enrolled in more than one co-op program. For a listing of co-op programs, the academic supervisors, and the sponsoring Academic Department, see the Programs of Study (Subject POUs) 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. Students who successfully complete all the requirements associated with a work-term are awarded 0.5 full credit equivalents, these credits being additional to the 20.0 normally required for the degree.

To maintain good standing in a co-op program, to be eligible for a work term, and to receive certification for its completion on graduation, a student must:

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

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

---

#### Table: Co-operative Programs

<table>
<thead>
<tr>
<th>Area</th>
<th>Department</th>
<th>Program</th>
<th>Type</th>
<th>Degree</th>
<th>Co-op</th>
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<tr>
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<td></td>
<td>Physical &amp; Mathematical Sciences</td>
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<tr>
<td>Physics</td>
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<td>Astrophysics &amp; Physics</td>
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<td></td>
<td></td>
<td>Physics &amp; Its Applications</td>
<td>Specialist</td>
<td>BSc</td>
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<td>See also Environmental Science (Environmental Physics) and Physical Sciences (Natural Sciences)</td>
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<td></td>
<td>Major</td>
<td>BA</td>
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<td>See also Economics (Political Science &amp; Economics for Management Studies)</td>
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<td>BSc</td>
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<td>BSc</td>
<td>✓</td>
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<td>Psychology &amp; Its Applications</td>
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<td>Sociology &amp; Environment</td>
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<td>Statistics</td>
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<td>See also Physical Sciences (Natural Sciences)</td>
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#### Co-operative Programs

<table>
<thead>
<tr>
<th>Area</th>
<th>Department</th>
<th>Program</th>
<th>Type</th>
<th>Degree</th>
<th>Co-op</th>
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<tr>
<td>Visual &amp; Performing Arts</td>
<td>Humanities</td>
<td>Art &amp; Culture</td>
<td>Specialist</td>
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<td></td>
<td></td>
<td>Art History</td>
<td>Major</td>
<td>BA</td>
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<td>Minor</td>
<td>BA</td>
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<td></td>
<td></td>
<td>Arts Management</td>
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<td>Drama</td>
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<td>BA</td>
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<td></td>
<td>Music &amp; Culture</td>
<td>Major</td>
<td>BA</td>
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<td></td>
<td></td>
<td>Music History</td>
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<td>✓</td>
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<td></td>
<td></td>
<td>Studio</td>
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<tr>
<td>Women's Studies</td>
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<td></td>
<td></td>
<td>Minor</td>
<td>BA</td>
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</table>
Introduction to Co-op Work Term Preparation Course

During their first year of enrollment in a co-op program, students will participate in a non-credit co-op work term preparation course designed to 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 placements appropriate to their program of study, and to perform professionally in the workplace. Satisfactory participation in this preparation course is required before students may go on work terms. No academic credit is given for the course and no fee is charged. For the names of the course appropriate to each program, see the relevant program description.

Work Terms

Work terms are an integral part of the co-op program curriculum. Practical work experience in an approved setting is undertaken to enhance academic studies through the opportunity to apply and develop concepts and/or skills that are important in the academic programs. Work term opportunities are arranged by the Co-op Office for the program, but must be won by students in competition with all applicants for the position. While on a work term, students remain in contact with the University, and prepare for the submission of a work-term report for evaluation by a faculty member. In addition, both the employer and the coordinator for the program will evaluate the student's performance on work terms. The work-term report must be submitted no later than the end of the second week of the study term immediately following the completion of the work term. Failure to meet this deadline will result in a grade of NCR (no credit) for the work term. A failed work term will be recorded on the transcript, and the student will be removed from the co-op program.

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

Course Requirements

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

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

**COMPUTER & MATHEMATICAL SCIENCES**

<table>
<thead>
<tr>
<th>Major</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science (Specialist &amp; Major) - B.Sc.</td>
<td>4 full credits including CSAC401H, CSAC424H, CSAC640H, MATA220H, MATA300H &amp; MATA310H</td>
<td>Cumulative GPA 2.75 minimum</td>
</tr>
<tr>
<td>Mathematical Sciences (Major) - B.Sc.</td>
<td>4 full credits including CSAC401H, MATA220H, MATA230H, MATA300H &amp; MATA310H</td>
<td>Cumulative GPA 2.75 minimum</td>
</tr>
<tr>
<td>Mathematics (Specialist) - B.Sc.</td>
<td>4 full credits including CSAC401H, MATA220H, MATA230H, MATA300H &amp; MATA310H</td>
<td>Cumulative GPA 2.75 minimum</td>
</tr>
<tr>
<td>Mathematics &amp; Its Applications (Specialist) - B.Sc.</td>
<td>4 full credits including CSAC401H, MATA220H, MATA230H, MATA300H &amp; MATA310H</td>
<td>Cumulative GPA 2.75 minimum</td>
</tr>
<tr>
<td>Conservation Biology (Specialist) - B.Sc.</td>
<td>4 full credits including BGYA101H &amp; BGYA201H, CHMA101H &amp; CHMA111H, MATA100H &amp; MATA300H, PHYA101H</td>
<td>Cumulative GPA 2.75 minimum</td>
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**LIFE SCIENCES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Cell &amp; Molecular Biology (Specialist) - B.Sc.</td>
<td>5 full credits including BGYA101H &amp; BGYA201H, CHMA101H &amp; CHMA111H, MATA100H &amp; MATA300H, PHYA101H</td>
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**HUMANITIES**

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<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>Art History (Major) - B.A.</td>
<td>4 full credits including VPA101H &amp; 1 full credit in VPA</td>
</tr>
<tr>
<td>Art History (Major) - B.A.</td>
<td>4 full credits including VPA102H &amp; 1 full credit in Art History</td>
</tr>
<tr>
<td>Art History (Major) - B.A.</td>
<td>4 full credits including VPA103H</td>
</tr>
<tr>
<td>English (Major) - B.A.</td>
<td>4 full credits including ENG101H &amp; ENG102H</td>
</tr>
<tr>
<td>English (Major) - B.A.</td>
<td>4 full credits including ENG104H &amp; ENG105H</td>
</tr>
<tr>
<td>French (Major) - B.A.</td>
<td>4 full credits including FRE101H &amp; FRE102H</td>
</tr>
<tr>
<td>History (Major) - B.A.</td>
<td>4 full credits including HIST101H &amp; HIST102H or 1 FCE at the B-level in HIS</td>
</tr>
<tr>
<td>History (Major) - B.A.</td>
<td>4 full credits including HIST101H &amp; HIST102H or 1 full credit at the B-level in HIS</td>
</tr>
<tr>
<td>Linguistics (Major) - B.A.</td>
<td>4 full credits including LIN101H &amp; LIN102H</td>
</tr>
<tr>
<td>Music &amp; Culture (Major) - B.A.</td>
<td>4 full credits including VPA101H &amp; 1 full credit in Music</td>
</tr>
<tr>
<td>Philosophy (Major) - B.A.</td>
<td>4 full credits including 1 full credit in PHIL</td>
</tr>
<tr>
<td>Psychology (Specialist) - B.A.</td>
<td>4 full credits including LIN101H &amp; LIN102H, PHVA120H, MATA310H &amp; PHYA220H</td>
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<tr>
<td>Studio (Major) - B.A.</td>
<td>4 full credits including VPA101H and 1 FCE in Studio</td>
</tr>
<tr>
<td>Women's Studies (Major) - B.A.</td>
<td>4 full credits including WSTA101H &amp; WSTA102H</td>
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**COMPUTER & MATHEMATICAL SCIENCES**

<table>
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<th>Course</th>
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<tr>
<td>Statistics (Major) - B.Sc.</td>
<td>4 full credits including CSAC401H, MATA220H, MATA300H &amp; MATA310H</td>
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Co-operative Programs
### LIFE SCIENCES

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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Cumulative GPA</th>
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<tr>
<td>Neuroscience (Specialist) - B.Sc.</td>
<td>4 full credits including BGYA011H &amp; BGYA021H, CIMA011H &amp; CIMA013H, CHMA011H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
<td>PHYA011H recommended</td>
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<tr>
<td>Psychology &amp; Its Applications (Specialist) - B.Sc.</td>
<td>4 full credits including PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
<td>Grade 1A/1B Calculus recommended</td>
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### MANAGEMENT

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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Cumulative GPA</th>
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<tbody>
<tr>
<td>Economics for Management Studies (Specialist) - B.B.A.</td>
<td>4 full credits including ECMC041H &amp; ECMC042H, MGT012Y or [MGT010H &amp; MGT011H], MATA027H or [MATA028H &amp; MATA029H &amp; MATA030H &amp; MATA031H]</td>
<td>2.0 minimum</td>
<td>MATA011H recommended</td>
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<tr>
<td>Management (Specialist) - B.B.A.</td>
<td>4 full credits including ECMC041H &amp; ECMC042H, MGT012Y or [MGT010H &amp; MGT011H], MATA027H or [MATA028H &amp; MATA029H &amp; MATA030H &amp; MATA031H]</td>
<td>2.0 minimum</td>
<td>MATA011H recommended</td>
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<tr>
<td>Management &amp; Humanities (Specialist) - B.B.A.</td>
<td>4 full credits including ECMC041H &amp; ECMC042H, MGT012Y or [MGT010H &amp; MGT011H], MATA027H or [MATA028H &amp; MATA029H &amp; MATA030H &amp; MATA031H]</td>
<td>2.0 minimum</td>
<td>MATA011H recommended</td>
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<td>Management &amp; Information Technology (Specialist) - B.B.A.</td>
<td>4 full credits including CSCI010H, CSCI011H, ECMC041H &amp; ECMC042H, MATA010H &amp; MATA011H, MATA027H or [MATA028H &amp; MATA029H &amp; MATA030H &amp; MATA031H]</td>
<td>2.0 minimum</td>
<td>MATA011H recommended</td>
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<tr>
<td>Management &amp; Life Sciences (Specialist) - B.B.A.</td>
<td>4 full credits including ECMC041H &amp; ECMC042H, MGT012Y or [MGT010H &amp; MGT011H], MATA027H or [MATA028H &amp; MATA029H &amp; MATA030H &amp; MATA031H]</td>
<td>2.0 minimum</td>
<td>MATA011H recommended</td>
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<tr>
<td>Management &amp; Sciences (Specialist) - B.B.A.</td>
<td>4 full credits including ECMC041H &amp; ECMC042H, MGT012Y or [MGT010H &amp; MGT011H], MATA027H or [MATA028H &amp; MATA029H &amp; MATA030H &amp; MATA031H]</td>
<td>2.0 minimum</td>
<td>MATA011H recommended</td>
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<tr>
<td>Management &amp; Social Sciences (Specialist) - B.B.A.</td>
<td>4 full credits including ECMC041H &amp; ECMC042H, MGT012Y or [MGT010H &amp; MGT011H], MATA027H or [MATA028H &amp; MATA029H &amp; MATA030H &amp; MATA031H]</td>
<td>2.0 minimum</td>
<td>MATA011H recommended</td>
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### PHYSICAL & ENVIRONMENTAL SCIENCES

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<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Cumulative GPA</th>
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</thead>
<tbody>
<tr>
<td>Astrophysics &amp; Physics (Major) - B.Sc.</td>
<td>4 full credits including ASTA011H &amp; ASTA012H, MATA011H &amp; MATA012H &amp; MATA013H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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<tr>
<td>Biochemistry (Major) - B.Sc.</td>
<td>4 full credits including BGYA011H &amp; BGYA021H, CHMA011H &amp; CHMA013H</td>
<td>2.5 minimum</td>
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<tr>
<td>Biological Chemistry (Specialist) - B.Sc.</td>
<td>4 full credits including BGYA011H &amp; BGYA021H, CHMA011H &amp; CHMA013H, MATA030H &amp; MATA031H, MATA032H &amp; MATA033H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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<tr>
<td>Chemistry (Specialist) - B.Sc.</td>
<td>4 full credits including CHMA011H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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### PHYSICAL & ENVIRONMENTAL SCIENCES

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<th>Credits</th>
<th>Prerequisites</th>
<th>Cumulative GPA</th>
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</thead>
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<td>4 full credits including CHMA011H, MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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</tr>
<tr>
<td>Environmental Biology (Specialist) - B.Sc.</td>
<td>4.5 full credits as follows BGYA011H &amp; BGYA021H, CHMA011H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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<td>Environmental Chemistry (Specialist) - B.Sc.</td>
<td>4.5 full credits as follows BGYA011H &amp; BGYA021H, CHMA011H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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<tr>
<td>Environmental Geoscience (Specialist) - B.Sc.</td>
<td>4.5 full credits as follows BGYA011H &amp; BGYA021H, CHMA011H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
<td></td>
<td></td>
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<tr>
<td>Environmental Physics (Specialist) - B.Sc.</td>
<td>4.5 full credits as follows CHMA011H &amp; CHMA013H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Science (Major) - B.Sc.</td>
<td>4 full credits including BGYA011H &amp; BGYA021H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Sciences (Specialist) - B.Sc.</td>
<td>4 full credits as follows BGYA011H, BGYA021H, CHMA011H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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<tr>
<td>Physical Sciences (Major) - B.Sc.</td>
<td>4 full credits as follows CHMA011H &amp; CHMA013H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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<tr>
<td>Physical &amp; Mathematical Sciences (Specialist) - B.Sc.</td>
<td>4 full credits as follows CHMA011H &amp; CHMA013H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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<tr>
<td>Physics &amp; Its Applications (Specialist) - B.Sc.</td>
<td>4 full credits as follows CHMA011H &amp; CHMA013H, MATA010H &amp; MATA011H &amp; MATA012H &amp; MATA013H, MATA014H &amp; MATA015H, MATA016H, MATA017H, PSHA011H &amp; PSHA021H</td>
<td>2.5 minimum</td>
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### SOCIAL SCIENCES

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Cumulative GPA</th>
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<tbody>
<tr>
<td>Anthropology (Specialist) - B.A./B.Sc.</td>
<td>4 full credits including ANT010H &amp; ANT012H</td>
<td>2.5 minimum</td>
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<tr>
<td>City Studies (Major) - B.A.</td>
<td>4 full credits including 1 full credit from among ANT010H &amp; ANT012H, GGRA011H &amp; GGRA012H, SOC011H &amp; SOC012H or 1 full credit in A-level POL</td>
<td>2.5 minimum</td>
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<tr>
<td>Health Studies (Major) - B.A./B.Sc.</td>
<td>4 full credits including HLTA011H &amp; 1 full credit from among ANT010H &amp; ANT012H, GGRA011H &amp; GGRA012H, ECMA011H &amp; ECMA012H, ECOM011H, ECMA011H, PSHA011H, PSHA012H, SOC011H, SOC012H</td>
<td>2.5 minimum</td>
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<tr>
<td>International Studies (Major) - B.A.</td>
<td>4 full credits</td>
<td>2.5 minimum</td>
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</tbody>
</table>
Joint Programs with Centennial College

The University of Toronto Scarborough and Centennial College have established joint programs. These programs build on the academic strengths of the University of Toronto degree together with Centennial College’s strengths in technical and practical education. Students earn a University of Toronto degree. 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.utsc.utoronto.ca/jpups

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 Paramedicine

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

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

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 Paramedicine for other admission or post-admission requirements.

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

REGISTRATION PROCEDURES:
Course enrolment: Students enrol in all degree credit courses, including those taken at Centennial College (all of which are listed in this Calendar) at UTSC.

Fees: Tuition and incidental fees are payable to the University in the normal way. In each session in which students are taking one or more courses at Centennial College, a program fee relating to the use of materials is charged. The amount of the fee varies by program.

Anthropology

(B.A./B.Sc.)

Faculty List
F. D. Burton, B.Sc., M.A.; (NYU), Ph.D. (CUNY), Professor Emeritus
R. W. Stanley, M.A. (Stanford), Ph.D. (Columbia), Professor Emeritus
J. Boddie, B.A. (McGill), M.A. (Calgary), Ph.D. (UBC), Professor
M. Lancaster, B.A. (McGill), M.A. (Michigan), Ph.D. (U.S.C.), Professor
S. Bamford, B.A. (Toronto), M.A. (McMaster), M.A., Ph.D. (Virginia), Associate Professor
M. Latta, B.A. (Kans.), M.A., Ph.D. (Toronto), Associate Professor
L. Sewchuck, B.A., M.A. (Manitoba), Ph.D. (Toronto), Associate Professor
M. Schiller, B.A. (New Mexico), M.A. (Toronto), Ph.D. (New Mexico), Assistant Professor

Supervisor of Studies: S. Bamford, (416) 287-7381
Email: anthropology-supervisor-studies@utsc.utoronto.ca

Anthropology is the study of humankind, 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 Anthropological Linguistics. At the present time, University of Toronto 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 OPERATIVE) PROGRAM IN ANTHROPOLOGY (B.A./B.SC.)

Supervisor of Studies: L. Chau Email: lchau@utsc.utoronto.ca
Advisor: S. Bamford Email: anthropology-supervisor-studies@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 area of study. Students select a focus for their course work and work terms in Biological Anthropology, Medical Anthropology, Archaeology or Social-Cultural Anthropology. Work terms can be with Canadian employers including NGOs, research institutions, 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 Socio-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, supervisied research and reading courses are available at the C- and D-levels (ANTC03H, ANTCD01H, ANTCD03H, ANTCD02H). 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
   ANTA02H Introduction to Anthropology: Society, Culture and Language

2. At least one FCE from each of two of the following three streams:
   a) [ANTB14H Biological Anthropology: Beginnings
      ANTBI5H Contemporary Human Evolution and Variation
      and
      ANTBI7H Culture, Politics and Globalization.
   b) [ANTBI11H World Prehistory: the Old Stone Age
      and
      ANTBI29H World Prehistory: The Rise of Civilization
      or
      ANTB38H First Nations of North America: Hunters and Gatherers
      and
      ANTB39H First Nations of North America: Social Complexity and the State
   c) 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: HIL1B0H, HIL1B1H, HIL1B2H 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
   ANTA02H Introduction to Anthropology: Society, Culture and Language

2. At least one FCE from each of two of the following streams:
   a) [ANTB14H Biological Anthropology: Beginnings
      and
      ANTBI5H Contemporary Human Evolution and Variation
   b) [ANTBI9H Varieties of Social Life
      and
      ANTB04H Culture, Politics and Globalization.
   c) [ANTBI11H World Prehistory: the Old Stone Age
      and
      ANTB12H World Prehistory: The Rise of Civilization
      or
      ANTB38H First Nations of North America: Hunters and Gatherers
      and
      ANTB39H First Nations of North America: Social Complexity and the State
   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
   ANTA02H Introduction to Anthropology: Society, Culture and Language

2. At least one FCE from among the following:
   a) [ANTB14H Biological Anthropology: Beginnings
      and
      ANTBI5H Contemporary Human Evolution and Variation
   b) ANTB19H Varieties of Social Life
      and
      ANTB20H Culture, Politics and Globalization.
   c) [ANTB11H World Prehistory: the Old Stone Age
      and
      ANTB12H World Prehistory: The Rise of Civilization
      or
      ANTB38H First Nations of North America: Hunters and Gatherers
      and
      ANTB39H First Nations of North America: Social Complexity and the State
   d) Two additional FCEs in Anthropology, of which one FCE must be at the C- or D-level.
SPECIAL PROGRAM IN MEDICAL ANTHROPOLOGY (B.A./B.S.C.)
The Specialist Program in Medical Anthropology integrates the fields of social-cultural anthropology, physical anthropology, and archaeology by taking health, medicine, and disease as a focus for anthropological studies. This unique undergraduate program is designed to provide knowledge and skills in an area of growing importance for a wide range of health-related studies and work, and it is also intended to provide students with the necessary preparation to pursue graduate studies in masters and doctoral Programs in the area of Medical Anthropology.

Program Requirements
The Program requires the completion of 12.5 FCE (full credit equivalents), including 10.5 in Anthropology, as follows:
1. Four FCEs required for all students as follows:
   - ANTA101H Introduction to Anthropology: Becoming Human
   - ANTA202H Introduction to Anthropology: Society, Culture and Language
   - ANTB101H Biological Anthropology: Beginnings
   - ANTB158H Contemporary Human Evolution and Variation

2. At least 0.5 FCE in qualitative methods or field methods, such as ANTC35H or ANTC36H. A course in statistics may be substituted for ANTC35H.

3. Six FCEs from the following:
   - ANTB201H
   - ANTB202H
   - ANTB203H
   - ANTB206H
   - ANTC100H
   - ANTC141H
   - ANTC151H
   - ANTC201H
   - ANTC203H
   - ANTC303H
   - ANTC408H
   - ANTC411H
   - ANTC426H
   - ANTC437H
   - ANTC458H
   - ANTC503H
   - ANTC546H
   - ANTD101H
   - ANTD201H
   - ANTD202H
   - ANTD241H
   Any substitutions are subject to the permission of Supervisor of Studies.

4. Two FCEs at the B-level or higher from disciplines other than Anthropology to be agreed upon in consultation with the Supervisor of Studies.

For a B.S. degree, 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 another discipline other than Anthropology:

- HLTB101H, HLTB102H
- Any course in a science discipline (e.g. Biology, Environmental Science, Mathematics).

ANTAO102H 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: ANTO102Y, (ANTA101Y)

ANTAO203H 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 difference and societies of varying scale. Family, economic, political, and religious systems are illustrated from a variety of the world's cultures. Science credit. Exclusion: ANTO100Y, (ANTAO101Y)

ANTBO103H Political Ecology
This course examines human-environmental relations from an anthropological perspective. Throughout the semester, we explore how people from different parts of the globe situate themselves within culturally constructed landscapes. Topics covered include ethnobotany, conservation, green consumerism, the concept of 'wildness', and what happens when competing and differently empowered views of the non-human world collide. Exclusion: (ANTBO10Y)
Prerequisites: [ANTA101H & ANTA102H] or permission of the instructor

ANTBO203H Artifacts and Prehistory
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. Prerequisites: ANTA101H & ANTA202H, ANTB203H or ANTB101H recommended

ANTBO303H 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: [ANTA101H & ANTA202H] or permission of the instructor

ANTBO303H The Chinese Diaspora
This course investigates the societies and cultures of the Chinese diaspora, with a special but not exclusive focus on Southeast Asia and elsewhere in the Asia Pacific. Area course. Prerequisites: [ANTA101H & ANTA202H] or permission of instructor

ANTB112H1 Introduction to World Prehistory: The Rise of Civilization
An examination of the agricultural and urban transformations which gave rise to modern human societies. The course emphasizes the ecological-adaptive factors and the archaeological evidence bearing on the beginnings of permanent human settlements, the domestication of plants and animals, and the development of complex social and technological systems. Area course. Science credit. Exclusion: (ANTB111Y)
Prerequisites: ANTA101H & ANTA202H

ANTB1403 Biological Anthropology: Beginnings
This course surveys humanity's origin. The synthetic theory of evolution, its principles, processes, evidence and application is presented. Lecture topics include: evolutionary theory, hominid variations, human adaptability, primate biology, and behaviour, taxonomy and classification, palaeoanthropological principles and human origins. Science credit. Exclusion: ANTB203Y, (ANTB105Y)
Prerequisites: [ANTA101H & ANTA202H] or permission of the instructor

ANTB1583 Contemporary Human Evolution and Variation
Basic to the course is an understanding of the synthetic theory of evolution and the principles, processes, evidence and application of the theory. Laboratory projects acquaint the student with the methods and materials utilized 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: ANTB203Y, (ANTB15Y)
Prerequisites: [ANTA101H & ANTA202H] or permission of the instructor
ANTB151K 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 produce Canadians together through Canadian literature, myth and symbolism, mass media, and political culture. Area course.
Exclusion: (ANTB10Y)
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB191K 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: ANTB204Y, (ANTB20Y)
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB203H 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: ANTB205Y, (ANTB20Y)
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor

ANTB202Y Primate Behaviour
A general introduction to the study of the life-styles of non-human primates with particular emphasis on observing and recording primates in the wild. Readings and lectures develop the context in which observations are analyzed. Tools of recording and analysis are practiced and presented in seminars.
Science credit.
Prerequisite: [ANTA01H & ANTA02H] or [ANTA14H & ANTA13H] or [PSY001H & PSY202H] or [BOV004H & BOV002I]

ANTB253H Myth, Movies & Monkeys: The Construction of Human Nature
A fundamental question in anthropology is: "Is there a human nature?" We investigate this desire to see ourselves reflected in other creatures by exploring myths, legends, and films which use monkeys and apes as metaphor virtually creating the "human" being of humans.
Science credit.
Prerequisite: ANTA01H & ANTA02H recommended

ANTB301H Conceptualizing Religion
Anthropological approaches to the origin and function of religions, and the nature of symbolism, myth, ritual, sorcery, spirit possession, and cosmology, with primary reference to the religious worlds of small-scale societies.
Exclusion: (ANTC305Y)
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor. ANTB191K & ANTB203H recommended

ANTB303H 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 last 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: (ANTC305Y)
Prerequisite: ANTA01H & ANTA02H

ANTC391H 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 Puebloans, the Mesoamerican peoples, the Maya and the Aztecs. Emphasis on social, political and belief systems, together with consideration of the role of war, art and science in developing states.
Area course.
Science credit.
Exclusion: (ANTC305Y)
Prerequisite: ANTA01H & ANTA02H

ANTC393H Anthropology 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, and that such courses are not open to all students.
Prerequisite: Permission of the instructor & ANTA01H & ANTA02H & one 1-level full credit in Anthropology.

ANTC395H Culture, Science and Biotechnology: Redefining the ‘Natural’ Order of Things
This course examines how recent developments in biotechnology—cloning, the manufacture of genetically modified organisms, assisted reproduction technologies, and the mapping of the human genome, to name a few—are transforming our understanding of what it means to be human, including the relationship between human beings and other species.
Limited enrolment: 20
Prerequisite: ANTA01H, ANTA02H, ANTB191K & ANTB203H

ANTC380H African Cultures and Societies: 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.
Prerequisite: ANTB05H or ANTB191 or permission of the instructor

ANTC375H The Making of Modern Life: Artifacts of Contemporary Society
Complements ANTB04H: An investigation of the origins and development of material and immaterial artifacts which make up modern society. We will examine tools, crafts, ornaments, housing, clothing, food and communications media, and will consider this information as used in culture resource management, forensic anthropology and museology.
Science credit.
Prerequisite: ANTA01H or permission of the instructor. ANTB391H or ANTB203H recommended

ANTC375H Development, Inequality and Social Change in Latin America
Addresses agrarian policies, 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: 40
Prerequisite: ANTB191 or ANTB203H
ANTC103H3 Families: Kinship and Marriage from a Cross-Cultural Perspective
This course provides students with an overview of anthropological approaches to kinship and marriage. Using examples from India, Africa, the Pacific, Indonesia and North America, students will be introduced to the variety of forms that family life can take cross-culturally. Topics covered include kinship relations, child-rearing, bridewealth, new reproductive technologies, and the legitimation of sexual relations. Limited enrolment: 50
Prerequisite: ANTH101H, ANTA22H1, ANTB19H1 & ANTB20H1

ANTC104H 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: [ANTB19H1 & ANTB20H1] or permission of the instructor

ANTC129H3 Research on the Social Behaviour of Non-Human Primates
This course concentrates on field techniques in the study of non-human primates. Field work in two weeks within the semester. Daily routine: dawn to dusk; evening note; some free time.
Evaluation: participation, preliminary research, field notes, log book and seminar or paper. Permission required. Contact: Professor Burton for information.
burton@rice.utoronto.ca 416-287-7345
Science credit. Limited enrolment: 10
Prerequisite: ANTR22Y & permission of the instructor

ANTC140H3 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 & ANTB20H1] or permission of the instructor

ANTC151H3 Genders and Sexualities
Complements and extends ANTC14H by exploring cultural constructions of male and female in a range of societies and institutions. Exclusion: (ANTC11Y)
Prerequisite: [ANTB19H1 & ANTB20H1] or permission of the instructor. ANTC14H recommended

ANTC164H3 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 the key issues, particularly the process of speciation, with specific reference to the emergence of Homo. Fossils will be examined, but the emphasis will be on the reinterpretation of the processes of hominisation through the thoughts and writings of major workers in the field.
Science credit. Exclusion: (ANTC32Y1, ANTC16Y)
Prerequisite: [ANTA11H1 & ANTA22H1] or permission of the instructor

ANTC173H3 Human Origins: New Discoveries
The study of human origins in light of recent approaches surrounding human evolution. New fossil finds present new approaches and theory. This course will examine some of these, particularly the process of speciation and hominisation with specific reference to the emergence of Homo. This is the only course in the series that can be taken for science credit.
Exclusion: (ANTC32Y1, ANTC16Y)
Prerequisite: [ANTA11H1 & ANTA22H1] or permission of the instructor

ANTC182H3 Urban Anthropology
Examines the social organization and cultural formations of groups in cities in comparative perspective, with special attention to innovative research bearing on urban governance, cultural diversity, and political contestation over urban space. Limited enrolment: 60
Prerequisite: ANTB19H1 & ANTB20H1, ANTH101H recommended

ANTC213H3 Producing People and Things: Economies 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 in 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: [ANTA11H1 & ANTA22H1] or permission of the instructor

ANTC262H3 Gifts, Money and Morality
What limits exist or can be set to commoditized relations? To what extent can money be transformed into virtuous, private goods into the public. "Good"? We examine the anthropological literature on gift-giving, systems of exchange and value, and sacrifice. Students may conduct a short ethnographic project on money in our own society, a subject that is always obvious and mysterious. Prerequisite: [ANTA11H1 & ANTA22H1] or permission of the instructor. ANTB19H1 & ANTB20H1 recommended

ANTC275H3 Canadian Native Peoples: Traditional Values
This course examines the traditional cultures of Canadian native peoples through the media of archaeology, ethnology 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.
Prerequisite: Any B-level course in Anthropology or permission of the instructor

ANTC276H3 Canadian Native Peoples: Contemporary Concerns
This course examines contemporary issues which concern Canadian native peoples. Issues to be considered include: 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.
Prerequisite: ANTC21H1

ANTC283H3 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: ANTA101H & ANTA201H, ANTB19H1 & ANTB20H1 are recommended

ANTC303H3 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: ANTD40Y, (ANTC262Y)
Prerequisite: ANTB19H1 & ANTB20H1 or [ANTB30H1 & ANTH30H1] are recommended

ANTC372H3 The Practice of Anthropology: 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 anthropology in modern society through Culture Resource Management. Science credit.
Exclusion: ANTD50Y, (ANTC262Y)
Prerequisite: ANTB19H1 & ANTB20H1 or [ANTB38H1 & ANTH38H1] are recommended

ANTC383H3 Introduction to Archaeological Field Methods
Introduction and training in the methods and theory of archaeological fieldwork, including excavation, environmental evaluation, survey 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.
Exclusion: ANTC11Y
Prerequisite: Any B-level course in Archaeology or Physical Anthropology or a B-level course in a cognate discipline
ANTC314H1S Ritual and Religious Action
The nature and logic of ritual. Religious practices and projects; the interface of religion, power, morality, and history in the contemporary world.
Exclusion: ANTC500Y
Prerequisite: [ANTA01H & ANTA02H & ANTB01H] or permission of the instructor. ANTB191H & ANTB201H recommended

ANTC322H1S Political Anthropology
A general survey of the role of political systems in a largely "development" framework.
Prerequisite: [ANTA01H & ANTA02H] or permission of the instructor. ANTB191H & ANTB201H recommended

ANTC424H1S The Anthropology of Transnationalism
Considers dimensions of transnationalism as a mode of human sociality and site for cultural production. Topics covered include transnational labour migration and labour 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 enrolment: 60
Prerequisite: ANTB191H & ANTB201H

ANTC325H1S 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.
Science credit.
Exclusion: ECONB11H1, PNYB10H7, SOC806H
Prerequisite: ANTA01H & ANTA02H. ANTB191H & ANTB201H are recommended

ANTC329H3 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 sociocultural strategies for survival and adaptation, population structure of small-scale and urban societies, and paleodemography and palaeoanthropology.
Prerequisite: [ANTB148H1 & ANTB153H] or permission of the instructor

ANTC4294H3 Methods and Analysis in Anthropological Demography
An examination of the biological, demographic, ecological and socio-cultural determinants of human and non-human population structure and the interrelationships among them. Emphasis is given to constructing various demographic measures of mortality, fertility and immigration and their interpretation.
Science credit.
Prerequisite: ANTC390H or permission of the instructor

ANTC451H3 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, geography, as well as aspects of the socio-cultural realm, such as pathogens (disease), nutrition and malnutrition, migration, technology, and social change.
Science credit.
Prerequisite: [ANTB148H1 & ANTB153H] or [BGYA01H & BGYA02H]

ANTC4293H Human Growth, Development and Adaptability
Human adaptability refers to the human capacity to cope with a wide range of environmental conditions. Emphasis is placed on human growth and development in stressed and non-stressed environments. Case studies are used extensively.
Science credit.
Prerequisite: ANTC414H1 or permission of the instructor

ANTC472H3 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 "Introduction to Anatomy," while the second half is "Anthropological" unit. Lectures and labs will cover (1) the comparative and microstructure of bone; (2) the development, growth, remodeling and plasticity of bone; and (3) the detailed "normal" gross anatomy of the skeleton and dentition.
Science credit.
Limited enrolment: 40
Exclusion: ANTC334H, ANT334Y (ANTC474Y)
Prerequisite: [ANTB148H1 & ANTB153H] or [BGYA01H & BGYA02H]. ANTC168H & ANTC177H recommended.

ANTC480H3 Advanced Topics in Human Osteology
A "hands-on" laboratory course which introduces students to the methods of analyzing human skeletal remains. Topics and analytic methods include: (1) the recovery and treatment of skeletal remains from archaeological sites; (2) odontological description, including dental pathology; (3) ontometric description; (4) nonmetric trait description; (5) methods of estimating age at death and sex; (6) quantitative analysis of metric and nonmetric data; and (7) paleopathology.
Science credit.
Limited enrolment: 25
Prerequisite: 25 with preference given to students in anthropology and international development studies.
Prerequisite: [ANTB148H1 & ANTB153H] or permission of the instructor

ANTC511H3 Medical Anthropology: Illness and Healing in Cultural Perspectives
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. Emphasis on participant-observation, interviewing, and ethics.
Limited enrolment: 25
Prerequisite: 25 with preference given to students in anthropology and international development studies.
Prerequisite: [ANTB148H1 & ANTB153H] or permission of the instructor

ANTC569H3 Muslim Societies (Complements ANTC548H)
By engaging critically with selected issues in societies professing Islam, based on ethnographic case studies from the Middle East, Africa, and Asia.
Exclusion: ANTC551Y
Prerequisite: ANTB45H or permission of the instructor

ANTC580H3 Fieldwork in Social and Cultural Anthropology
The collection of data through participant-observation and resultant analysis. Emphasis on the design and execution of a research project in a field setting.
Exclusion: ANTC551Y
Prerequisite: ANTB45H or permission of the instructor

ANTC5113 Medical Anthropology: Illness and Healing in Cultural Perspectives
Scientific and symbolic aspects of the body, the life cycle, the representation and popular explanation of illness, the logic of traditional healing systems, the culture of North American illness and biomedicine, mental illness, social roots of disease, innovations in health care delivery systems.
Prerequisite: ANTB148H1 & ANTB201H or permission of the instructor

ANTC620H3 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, ANTC621H, this course is designed to introduce students to the basic concepts and principles of medical anthropology. Principles of epidemiology, patterns of heritance and biological evolution are considered.
Science credit.
Exclusion: ANTC511Y
Prerequisite: [ANTB148H1 & ANTB153H] or permission of the instructor
ANTC251H1 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 gatherer-hunters to domesticators of food sources. Topics to be discussed include human dietary needs, the primitive base, malnutrition and its consequences. Science credit.
Prerequisite: ANTA61H1 & ANTA62H1, plus one other full credit at B- or C+ level in Anthropology.

ANTC445H1 The Anthropology of Food: Consuming Passions
The role of food as nature and its social significance as symbol constitute the theme of this course. Topics to be addressed include human dietary needs and the myth of meat, the "meat", traditional dietary medicine, food, and the green and blue revolutions and their implications. Science credit.
Prerequisite: ANTA41H1 & ANTA42H1, plus one full credit at C-level in Anthropology.

ANTC5150H 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: ANTA101H1 & ANTA102H1, ANTH191H & ANTH201H recommended.

ANTD151H3 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.

ANTD165H3 Biomedical Anthropology
This course is designed for advanced students seeking an intensive examination of medical anthropology. Problems to be discussed include genetic disorders in families and populations, the interrelation of malnutrition and infectious diseases in human populations, chronic non-infectious diseases in populations today, and epidemology and medical anthropology as complementary disciplines. Science credit.
Prerequisite: ANTA62H1 & one C-level full credit in Physical Anthropology.

ANTD231H3 Ethnomedicine
This seminar course focuses on the intersection of body, mind, and self in cross-cultural perspective. Particular attention will be paid to the analysis of symbols, ritual, and the meaningfulness of bodily experience, to issues of gender and power, and to the healing process. Limited enrolment: 20
Prerequisite: ANTA211H or permission of instructor. ANTC208H & ANTC191H are highly recommended.

ANTD244H3 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, diffusionistic, psychological, cross-cultural, functionalist, structuralist, and hermeneutic approaches will be considered through selected writings from such major figures as Tylor, Durkheim, Bion, Kroeber, Malinowski, Radcliffe-Brown, and Levi-Strauss. An attempt will be made to understand these individualists in terms of the social and intellectual climates in which they wrote.
Prerequisite: Permission of the instructor.

ANTD313H3 Advanced Research in Anthropology
Directed critical examination of specific problems in Anthropology, based on library and/or field research. These courses are available in exceptional circumstances and do not duplicate regular course offerings. Students are advised that they must obtain consent from the supervising instructor before registering. Individual tutorials, as arranged. A minimum B average is normally required to be considered for these courses. May be science credit or area course depending on topic.
Prerequisite: Permission of the instructor & ANTA201H & 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
P.H. Krook, B.Sc., M.Sc. (Queen's), Ph.D. (Manchester), D.Sc. (Manchester), Professor Emeritus.
P. Antman, M.Sc. (Warsaw University); Ph.D. (N. Copernicus Astron. Center, Polish Academy of Sciences), Professor.
C.C. Dyer, B.Sc. (Birkbeck); M.Sc., Ph.D. (Toronto), Professor.
J. Lowman, B.Sc. (Toronto), M.Sc., Ph.D. (York Univ.), Assistant 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, that is, the solar system in which we find our direct and recent origins, to the largest distances reached 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. The last decade has witnessed an explosion in the number of known planets, with more than one hundred already discovered in orbit around other stars in our Galaxy. In addition there has recently been a significant trend towards 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 ASTA301H1 and ASTA302H. 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 ASTA803H 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 evaluation of a number of modern scientific areas. Similarly, as more planets are discovered there promises to be an even stronger collaborative effort with disciplines such as chemistry and biology to discover the possible origins of life.

Please refer to the preambles 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.
ASTB0303 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 how their ideas have revolutionised our understanding of nature and the Universe. The perspective gained is used to assess current astronomical research and its impact on society.
Exclusion: ASTB101H
Prerequisite: Four full-credit equivalents

ASTB240H 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 local 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.
Exclusion: ASTB212H
Prerequisites: ASTB201H, ASTB211H, ASTB212H
Concorse: MATB41H

ASTB201H 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 astronomy and write a report ("Synthesis") 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 Dyre. The bibliography is dependent upon the topic selected.
Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusion: ASTB230H
Prerequisites: ASTB201H & ASTB102H or (ASTA03Y) & PHYB21H & permission of the instructor

ASTB220H 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 successively 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 conclude the course.
Exclusion: ASTB221H, ASTB222H
Prerequisites: ASTB21H & MATB41H
Concorse: MATB42H

Biology

Faculty List

C. Nalewjak, B.Sc., Ph.D., D.Sc., (University College London), Professor Emeritus
J.C. Richter, B.Sc. (Abderdeen), Ph.D. (Sheffield), D.Sc. (Abderdeen), F.R.S.C., Professor Emeritus
A.H. Weatherley, B.Sc. (Oxford), M.Sc. (Tasmania), Ph.D. (Edinburgh), Professor Emeritus
G.R. Williams, B.Sc., Ph.D., D.Sc. (Liverpool), F.R.S.C., Professor Emeritus
J.R. Youoss, B.A. (Victoria), Ph.D. (Victoria), Ontario), Professor Emeritus
R. Beccaria, B.Sc. (Calgary), Ph.D. (British Columbia), Professor
J.R. Brown, B.Sc. (Carleton), Ph.D. (Texas), Professor
J.W. Gauld, B.A. (Mount Allison), Ph.D. (McGill), Professor
J.C. Silver, B.Sc., Ph.D., (CUNY), Professor
D.D. Williams, B.Sc. (University College, North Wales), Dip. Ed. (Liverpool), M.Sc., Ph.D. (Waterlo), D.Sc. (Wales), Professor
R.R. Fullterope, B.Sc., M.Sc., (Toronto), Ph.D. (Carleton), Associate Professor
C.A. Hasenkampf, B.Sc. (Loyola), M.Sc., Ph.D. (Florida State), Associate Professor
H.J. Kronzucker, B.Sc. (Winnipeg), Ph.D. (British Columbia), Associate Professor
C.D. Riggs, B.Sc. (North Carolina), Ph.D. (Florida State), Associate Professor
G.C. Vanderghems, B.Sc., M.Sc. (Western Ontario), Ph.D. (Queen’s), Associate Professor
M.C.B. Andrade, B.Sc. (Simon Fraser), M.Sc. (Toronto), Ph.D. (Cornell), Assistant Professor
S. Gascaran, B.Sc., M.Sc. (Milan, Italy), Ph.D. (Tubingen, Germany), Assistant Professor
R.E. Harrison, B.Sc. (Winnipeg), M.Sc. (Manitoba), Ph.D. (Toronto), Assistant Professor
N.R. Lovejoy, B.Sc., M.Sc. (Toronto), Ph.D. (Cornell), Assistant Professor
L.M. Linnell, B.Sc. (Thirdy College), M.Sc., Ph.D. (University of Tennessee), Assistant Professor
A.C. Mason, B.Sc. (Guelph), M.Sc., Ph.D. (Toronto), Assistant Professor
J.E. Nash, B.Sc. (Abderdeen), M.Sc., Ph.D. (Univ. of Manchester), Assistant Professor
S.G. Reid, B.Sc. (Ottawa), Ph.D. (Ottawa), Assistant Professor
T. Giri, B.Sc., M.Sc. (Toronto), Ph.D. (Texas A&M), Lecturer
SPECIALIST PROGRAM IN CELL AND MOLECULAR BIOLOGY
Supervisor: C. Hasenkampf, Email: hasenkampf@uottawa.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 CHMA10H, CHMA11H during the first year, and CHMB41H, CHMB42H and GBYB21H during the second year to stream properly through the Program. The required credits are:

1. 4.0 FCEs consisting of the core curriculum components: GBYA10H, GBYA20H, GBYB10H, GBYB11H, GBYB30H, GBYB31H, GBYB35H, GBYB35H;
2. 0.5 FCE in GBYB12H;
3. 3.5 FCE in essential concepts courses: GBYC12H, GBYC13H, GBYC15H, GBYC17H, GBYC22H, GBYD21H, and GBYD11H or GBYD12H or GBYD22H or GBYD23H or GBYD25H;
4. 1.0 FCE from among the following Cell and Molecular Biology courses: GBYC19H, GBYC21H, GBYC22H, GBYC26H, GBYC31H, GBYC37H, GBYD27H and NROC35H;
5. 2.0 FCEs in Chemistry: CHMA10H, CHMA11H, CHMB30H, CHMB32H;
6. 0.5 FCE in Physics: PHYA10H;
7. 1.0 FCE in Mathematics: MATA31H & [MATA33H or MATA34H];
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 STA223H.

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:
1. GBYA10H, GBYA20H, CHMA10H, CHMA11H, MATA31H, MATA33H or MATA34H, PHYA10H, 1 FCE of Item 8, or unspecified electives.
2. GBYB10H, GBYB11H, GBYB21H, GBYB30H, GBYB31H, GBYB35H, GBYB35H, CHMB41H, CHMB42H, 0.5 FCE of Item 8, or unspecified electives.
Year 3:
3. GBYC12H, GBYC13H, GBYC15H, GBYC17H, GBYC22H, plus 1.5 FCE of Item 4 courses or Item 8, or unspecified electives.
4. GBYD21H, 0.5 FCE of additional course work from Item 3, plus 3.5 FCE of Item 4 courses or Item 8, or unspecified electives.

SPECIALIST (CO-OPE) PROGRAM IN CELL AND MOLECULAR BIOLOGY
Supervisor: C. Hasenkampf, Email: hasenkampf@uottawa.ca

The Program provides the student with a broad education in biochemistry, cell biology, genetics, microbiology and molecular biology through lecture, laboratory, and intensive laboratory courses, and couples this theoretical and practical training with work experience in government, health care, or in public or private industry. 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 CHMA10H, CHMA11H during the first year, and CHMB41H, CHMB42H and GBYB21H during the second year to stream properly through the Program. The required credits are:

1. 4.0 FCEs consisting of the core curriculum components: GBYA10H, GBYA20H, GBYB10H, GBYB11H, GBYB30H, GBYB31H, GBYB35H, GBYB51H;
2. 0.5 FCE in GBYB12H;
3. 3.5 FCEs in essential concepts courses: BGYC12H, BGYC13H, BGYC15H, BGYC17H, BGYC23H, BGYD12H and [BGYD10Y or BGYD6H or BGYD22H, or BGYD23H or BGYD25H].

4. 1.0 FCE from among the following Cell and Molecular Biology courses: BGYC19H, BGYC21H, BGYC22H, (BGYC25H, BGYC23H, BGYC37H, BGYD37H) and NROC35H.

5. 2.9 FCEs in Chemistry: CHMA10H, CHMA11H, CHMB11H, CHMB42H.

6. 0.5 FCE in Physics: PHYA10H.

7. 1.0 FCE in Mathematics: MATA30H1 or [MATA35H or MATA46H].

8. 1.0 FCE from the courses listed by the Department of Humanities, Management or Social Sciences.

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: BGYA10H, BGYA20H, CHMA10H, CHMA11H, MATA23H, MATA25H or MATA36H, PHYA10H, 1.0 FCE of Item 8, or unspecified electives.

Year 2: BGYB10H, BGYB11H, BGYB12H, BGYB30H, BGYB35H, BGYB50H, BGYB51H, CHMB11H, CHMB42H, 0.5 FCE of Item 8 or unspecified electives.

Year 3: BGYB12H, BGYB13H, BGYB15H, BGYC17H, BGYC23H, plus 1.5 FCE of Item 4 courses or Item 8, or unspecified electives.

Year 4: BGYD20H, 0.5 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 is 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 BGYA10H, BGYA20H, CHMA10H, CHMA11H, MATA23H, [MATA25H or MATA36H], [PHYA10H or PHYA20H], BGYB10H, BGYB11H, BGYB12H, CHMB11H, CHMB42H, 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. Marine.Email: marin@ucbc.utonoto.ca

This program aims to prepare students to become practitioners in conservation biology. This program is built primarily from the Life Sciences (Biology) 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 streamlining through the program, and to prevent timetable conflicts that could delay graduation.

Program Requirements

Required courses: 14.5 full credit equivalents (FCEs)


2. 3.0 FCEs in essential concepts courses: BGYC12H, BGYC15H, BGYC37H, BGYC55H, BGYC67H, BGYD37H, BGYD55H, BGYD25H.

3. 2.0 FCEs from Practical Field Conservation or Basic Ecology courses: BGYC25H, BGYC35H, BGYC55H, BGYC67H, BGYD23H, BGYD37H, BGYD55H.

4. 0.5 FCE from Impact Assessment/Monitoring/Data Analysis: BGYC55H, EESC30H, EESC35H, EESC38H, EESC39H.

5. 0.5 FCE from Social Issues/Sustainability: GGBR20H, IDS320H, POL390H, SOCC37H.

6. 1.0 FCE in CHMA10H, CHMA11H.

7. 2.0 FCEs in Environmental Science courses: EESA16H, EESA40H, GGRA20H, GGRA30H.

8. 1.0 FCE in STAB22H and STAB27H.

Note: Some courses in this 3-5 above require prerequisites that are not included in the Conservation Biology Program.

Suggested Course Sequence

Year 1 required courses: BGYA10H, BGYA20H, CHMA10H, CHMA11H, EESA06H, GGRA20H, GGRA30H.

Year 2 required courses: BGYB10H, BGYB11H, BGYB30H, BGYB50H, BGYB51H, BGYB52H, STAB22H, STAB27H.

Year 3 required courses: BGYC12H, BGYC15H, BGYC37H, BGYD23H, EESA40H plus 1.0 FCEs from Items 3, 4 or 5 above.

Year 4 required courses: BGYC67H, BGYD55H plus 2.0 FCEs from Items 3, 4, or 5 above.

SPECIALIST (CO-OPERATIVE) PROGRAM IN CONSERVATION BIOLOGY

Supervisor: L. Marine.Email: marin@ucbc.utonoto.ca

This program aims to prepare students to become practitioners in conservation biology. This program is built primarily from the Life Sciences (Biology) 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 streamlining through the program. Students will also complete two work terms prior to graduation. For information on admissions, fees, work terms and standing in the Program, please see the Co-operative Programs section of this Calendar.

Program Requirements

Required courses: (14.5 FCEs)

1. 4.5 FCEs consisting of the core curriculum components: BGYA10H, BGYA20H, BGYB10H, BGYB11H, BGYB30H, BGYB35H, BGYB50H, BGYB51H, BGYB55H.

2. 3.0 FCEs in essential concepts courses: BGYC12H, BGYC15H, BGYC37H, BGYC55H, BGYC67H, BGYD25H.

3. 2.0 FCEs from Practical Field Conservation or Basic Ecology courses: BGYC25H, BGYC35H, BGYC55H, BGYC67H, BGYD23H, BGYD37H, BGYD55H.

4. 0.5 FCE from Impact Assessment/Monitoring/Data Analysis: BGYC55H, EESC30H, EESC35H, EESC38H, EESC39H.

5. 0.5 FCE from Social Issues/Sustainability: GGBR20H, IDS320H, POL390H, SOCC37H.

6. 1.0 FCE in CHMA10H, CHMA11H.

7. 2.0 FCEs in Environmental Science courses: EESA16H, EESA40H, GGRA20H, GGRA30H.

8. 1.0 FCE in STAB22H and STAB27H.

Note: Some courses in this 3-5 above require prerequisites that are not included in the Conservation Biology Program.
SPECIALIST PROGRAM IN HUMAN BIOLOGY

Supervisor: S. Red. Email: tgs@ualberta.ca

Program Requirements
This Program consists of 15.0 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: BGYA10H, BGYA20H, BGYD10H, BGYB10H, BGYB20H; BGYC10H, BGYC20H, BGYC30H, BGYC40H, BGYC50H.
2. 3.5 FCEs in essential knowledge courses: BGYB33H, (BGYC13H or BGYC13H), BGYC13H, BGYC23H, BGYC33H, BGYD33H, BGYD43H.
3. 1.0 FCE in PSYA10H and PSYA20H.
4. 0.5 FCE in NROB40H.
5. 2.0 FCE in CHMA10H, CHMA11H, CHMB43H, and CHMB44H.
6. 1.0 FCE in PHYA10H and PHYA21H.
7. 1.0 FCE in MATASA1H [or MATASA5H or MATASA6H].
8. 1.0 FCE from the additional list of Psychology and Neuroscience credits: NROB34H, PSYB10H, PSYB20H, PSYB30H, PSYB45H, PSYB51H, PSYB57H, PSYB58H.
9. 0.5 FCE in Health Studies: HLT40H1, (BGYC50H), IDNB04H, ANTB50H, ANTS50H, ANTS52H, ANT40H, POLC50H.

Note: It is recommended that students take a statistics course such as STAS22H.

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:
1. (5 FCEs of required courses) BGYA10H, BGYA20H, CHMA10H, CHMA11H, MATASA4H, MATASA5H or MATASA6H, PHYA10H, PHYA21H, PSYA10H, PSYA20H.

Year 2:

Year 3 & 4:
3. BGYC12H or BGYC13H, BGYC15H, BGYC17H, BGYC21H, BGYC31H, BGYD33H, NROB40H and Items 8 and 9

SPECIALIST PROGRAM IN INTEGRATIVE BIOLOGY

Supervisor: T. Gir Email: tgir@ualberta.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 successfully complete CHMA10H and CHMA11H prior to enrollment in this program. The specific Program requirements are:

2. 0.5 FCE from among the four core labs: BGYB12H, BGYB22H, BGYB32H, BGYB52H.
5. 4.5 FCEs in additional Biology courses.
6. 1.0 FCE in CHMA10H and CHMA11H.
7. 0.5 FCE in Physics: PHYA10H.
8. 1.5 FCE in MATA30H [or MATA35H] or MATA36H.
9. 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 STAS22H.

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:
1. BGYA10H and BGYA20H, CHMA10H and CHMA11H, MATASA4H and MATASA5H, PHYA10H.

Year 2:
2. BGYB10H and BGYB11H, BGYB30H and BGYB31H, BGYB50H and BGYB51H, BGYB52H and BGYB53H, BGYB54H, BGYB55H.

Year 3 & 4:
3. 0.5 FCE 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 BIO 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. Gir Email: tgir@ualberta.ca

Program Requirements
This Program consists of 3 required FCEs (full credit equivalents). Please note 20 FCEs are required to complete an Honours Degree. Students must successfully complete CHMA10H and CHMA11H prior to enrollment in this program.

1. 4.0 FCEs consisting of the core curriculum components: BGYA10H, BGYA20H, BGYB10H, BGYB11H, BGYB20H, BGYB30H, BGYB31H, BGYB33H, BGYB50H, BGYB51H.
2. 0.5 FCE from among the four core labs: BGYB12H, BGYB22H, BGYB32H, BGYB52H.
4. 1.5 additional FCEs in Biology.
5. 1.0 FCE in CHMA10H and CHMA11H.
6. 0.5 FCE from MATA30H or STAS22H.

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 or STAB32H
Year 3 & 4: 6.5 FCE of the courses designated as structure/diversity offerings and 1.5 FCE of other BGY courses

MINOR PROGRAM IN BIOLOGY
Supervisor: T. Getal
Email: tgr@u of toronto.ca

Program Requirements
This Program must include BGYA01H & BGYA02H plus three full-credit equivalents in Biology. At least 1 FCE must be at the C- or D-level.

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

SPECIALIST (JOINT) PROGRAM IN PARAMEDECINE
(See the Paramedicine section of this Calendar.)

Other Programs with Biology content
Courses in Biology can also be used to fulfill some requirements in the following programs:
Biochemistry, Biological Chemistry, Environmental Science, Health Studies, Natural Sciences and Neuroscience. Please note the detailed program descriptions in this calendar.

BGYA10H 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: BGYA01H

BGYA20H 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; adaptation and speciation.
Exclusion: BGYA01H, BGYA01
Prerequisite: BGYA01H or the non-credit tutorial on laboratory safety, methodology and instrumentation

BGYB10H 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 extra-cellular matrix will also be described in the context of cellular interactions with the environment.
Exclusion: BGYB10H, BGYB20H
Prerequisite: [BGYA01H & BGYA02H] or (BGYA01H & CHMA11H) or (CHMA09H or CHMA10H)

BGYB10Y 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 of the plasma membrane and extra-cellular interactions with the environment. In the second half of the course topics will include structure and function of the nucleus, DNA replication and cell cycle control, transcription and translation, gene regulation, signal transduction and basic aspects of immunology. Please note this course cannot be taken together with BGYA01H and BGYB10H
Exclusion: BGYB10H, BGYB11H, BGYB20H
Prerequisite: [BGYA01H & BGYA02H] or (BGYA10Y) & (CHMA11H) or (CHMA09H) or (CHMA10H)

BGYB11H Molecular Aspects of Cellular and Genetic Processes
A course focusing on the central dogma of genetics and how molecular techniques are used to investigate cellular processes.
Topics include structure and function of the nucleus, DNA replication and cell cycle control, transcription and translation, gene regulation, signal transduction and basic aspects of immunology.
Exclusion: BGYB11H, BGYB20H
Prerequisite: BGYB10H

BGYB12H3 Cell and Molecular Biology Laboratory
A practical introduction to experimentation in cell and molecular biology. Six modules will introduce students to concepts and techniques in the general preparation of solutions and buffers, microbiology, molecular biology, biochemistry, microscopy and data manipulation and communication skills.
This core laboratory course is the gateway for Cell & Molecular Biology specialists in upper level laboratory offerings.
Limited enrollment: This course is restricted to students enrolled in the Specialist Programs in Cell and Molecular Biology (C-op and non-C-op), Specialist Program in Biological Chemistry or the Major Program in Biochemistry.
Additional students will be admitted only if space permits.
Prerequisite: [CHMA10H & CHMA11H] or (CHMA09H)
Corequisite: BGYB10H or BGYB10Y

BGYB30H3 Membrane Physiology I
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 hormone action.
Exclusion: BGYB30H, NRB30H
Prerequisite: [BGYA01H & BGYA02H] or (BGYA01H)

BGYB31H3 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: BGYB30H, BGYT25H
Prerequisite: [BGYA01H & BGYA02H] or (BGYA01H)

BGYB32H3 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, mechanics of the diaphragm, respiration, and the effect of exercise on metabolism. Animals, lab reports, tests and a formal examination are required.
Exclusion: ZOO25H
Corequisite: BGYB30H or (BGYB30H) or (NROB30H)

BGYB33H3 Human Development and Anatomy
A lecture and laboratory course which deals with the functional morphology of the human organism. The subject matter extends from early embryo-genesis through puberty to late adult life.
Priority will be given to students in the Human Biology and Paramedicine programs. Additional students will be admitted as space permits.
Exclusion: ANA30H, ANA30H
Prerequisite: [BGYA01H & BGYA02H] or (BGYA01H)
BGCY138H Biochemistry II: Bioenergetics and Metabolism

A lecture course that introduces cellular metabolism, the process by which living organisms extract and utilize energy from their environment.

Topics include: bioenergetics, oxidative phosphorylation, aspects of carbohydrate, lipid and amino acid metabolism, regulation of metabolism, and the integration of metabolic pathways. Exclusion: BCH218H, BCH242Y, BCH318Y, BCH331Y

Prerequisite: [BGCY101H & BGCY111H] or (BGCY101Y)

BGCY212H Vertebrate Histology: Cells and Tissues

A study of the structure of cells and the various tissue types which make up the vertebrate body: epithelial, connective, muscle, nervous, blood, and lymphatic. Emphasis is placed on the development and function of the cells and tissues. Exclusion: ANA300Y

Prerequisite: [BGCY101H & BGCY111H] or BGCY210Y or [BGCY301H & BGCY311H] or (BGCY301Y)

BGCY222H Vertebrate Histology: Organs

The histological structure of the major organ systems of the vertebrate body: sense, integument, digestive, respiratory, excretory, reproductive. Particular emphasis is placed on functional morphology, evolution, and development. Exclusion: ANA300Y

Prerequisite: BGCY212H

BGCY230H Practical Approaches to Biochemistry

A lecture and laboratory course that introduces students to experimental approaches used in biochemical research. Topics include practical and theoretical aspects of: spectroscopy, chromatography, electrophoresis, radiotopes, enzyme assay and protein purification. Students will be expected to solve numerical problems involving these and related procedures. Exclusion: BGCY370H, BGCY371H

Prerequisite: BGCY212H & BGCY212H

Corequisite: BGCY138H

BGCY231H Advanced Plant Physiology

An examination of plant processes from a physiological, biochemical and molecular biological perspective.

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 photosynthetic nitrogen fixation.

Limited enrolment: 24

Exclusions: BGCY102Y, BGCY421H

Prerequisite: [BGCY101H & BGCY111H] or BGCY210Y & [BGCY101H or BGCY101Y]

BGCY313H Plant Development

A lecture course focused on molecular mechanisms of plant development covering a range of subjects including but not limited to: (1) Embryogenesis, seed development and germination. (2) Plant hormone: hormone perception, signal transduction pathways and mutant analysis. (3) Molecular control of vegetative development: meristem identity, function and regulation. (4) Flowering time: the floral model and hormone mutations. Limited enrolment: 40

Exclusion: BGCY340H

Prerequisite: BGCY101H & BGCY111H & BGCY133H

BGCY333H Mammalian Physiology II: Lecture and Laboratory

A course dealing with the physiology of the human respiratory, cardiovascular, renal, and digestive systems. Limited enrolment: Priority will be given to students enrolled in the Human Biology and Paramedicine Programs. Additional students will be admitted only if space permits. Exclusion: BGCY341H, PSL220Y, PSL300H, PSL301H, PSL302Y

Prerequisite: [BGCY101H or BGCY301Y] & BGCY333H

BGCY334H Mammalian Physiology II: Lecture

The lecture component of BGCY344H is identical to that described above for BGCY333H. Students will complete a series of computer-timed/lab exercises in the department (in their own time) instead of practical lab sessions. Exclusion: BGCY341H, PSL220Y, PSL300H, PSL301H, PSL302Y

Prerequisite: [BGCY101H or BGCY301Y]

BGCY335H Advanced Plant Physiology

An examination of plant processes from a physiological, biochemical and molecular biological perspective.

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 photosynthetic nitrogen fixation.

Limited enrolment: 24

Exclusions: BGCY102Y, BGCY421H

Prerequisite: [BGCY101H & BGCY111H] or BGCY210Y & [BGCY101H or BGCY101Y]
BGYC5H3 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, behavioural ecology, and physiological ecology. Both aquatic and terrestrial environments will be the "field" laboratories. Occasional weekend field trips are mandatory (e.g., Jokers Hill). Offered in alternate years. Limited enrolment: 15
Exclusion: BIO301H, Co-requisites: [BGYS5H1 & BGYB5H1] or (BGYS5Y1)

BGYC5H3 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
Exclusion: BIO301H
Prerequisite: [BGYS5H1 & BGYB5H1] or (BGYS5Y1) or EESC3H1 or permission of instructor.

BGYC5H1 Consequences of Global Change
A lecture and tutorial course that addresses one of the most important events in the history of our planet: focusing on oceanic, population, and ecosystem responses to predicted, rapid, global temperature increases. Ecological changes induced by human activities will be examined in the light of shifts in global and regional climates, and perturbations to the hydrological, carbon, and nitrogen cycles.
Exclusion: BIO242H, EGR33H1
Prerequisite: [BGYS5H1 & BGYB5H1]

BGYC5H3 Advanced Population Ecology
The study of the interactions that determine the distribution and abundance of populations. Emphasis is placed on discussion of experimental studies from current literature.
Topics include limitation of population growth; demography; reproduction; population change; competition; and responses to disturbance and stress. Offered in alternate years.
Exclusion: BIO315H1
Prerequisite: [BGYS5H1 & BGYB5H1] or (BGYS5Y1 & BGYB5Y1)

BGYC6H3 Restoration Ecology
A lecture and tutorial course that introduces students to the principles and practice of restoring disturbed or damaged ecosystems. Knowledge from stress physiology and community ecology, and reviews of case studies in restoration ecology are combined to examine how compromised ecosystems can be restored. Students will have the opportunity to work in teams to design and present projects on the restoration of a variety of terrestrial and aquatic systems.
Prerequisite: [BGYS5H1 & BGYB5H1]

BGYC6H3 Community Ecology and Environmental Biology
An examination of the theory and methodology of community analysis, with an emphasis on the factors regulating the development of ecosystems. The application of ecological theory to environmental problems is emphasized. Topics include: succession, primary productivity, nutrient supply, predation, competition, trophic dynamics, stability, and disturbance, and effects of global change.
Exclusion: BIO221H
Prerequisite: [BGYS5H1 & BGYB5H1] or (BGYS5Y1)

BGYC6H3 Role of Zoos in Conservation
A lecture course that examines the changing role of zoos through time, but emphasizing contemporary topics such as: captive breeding and re-introduction of species, and new technologies to assist reproduction in wild populations; the importance of nutrition and health in captive animals; zoos and public policy and education; endangered species in Canada, and habitat restoration. Priority will be given to students in the Species at Risk Program in Conservation Biology and Conservation Biology Co-op Programs. Limited enrolment: 30
Prerequisite: [BGYS5H1 & BGYB5H1]

BGYC6H3 Conservation Biology
A lecture and tutorial course on the scientific principles of biological conservation. Topics will include biodiversity, habitat loss and fragmentation, extinction rates, conservation planning, invasive species, and ecosystem services at diversity. Students will give one seminar.
Exclusion: BIO615H1
Prerequisite: [BGYS5H1 & BGYB5H1] or (BGYS5Y1)

BGYC6H3 Environmental Toxicology
An introduction to the scientific study of the effects of toxic chemicals on biological organisms. Standard methods of assessing toxicant effects on individuals, populations, and communities are discussed. Special emphasis is placed on the chemistry of major toxic classes, and on how toxicants are processed by the human body.
Prerequisite: [BGYS5H1 & BGYB5H1] or (BGYS5Y1 & CHMA101H) or (CHMA111H) or (CHMA101Y)

BGYC7H1 Advanced Field Course in Ecology
Intermediate-advanced selections from a variety of field courses offered by the Ontario Universities Program in Field Biology, a co-operative arrangement among universities in Ontario. Courses, of one or two week's duration at a variety of field sites usually from late April through mid September. A fee for room and board is charged over and above tuition. Lists of courses available are posted early in January. Sign-up is on a first-come, first-served basis. Students register in the fall after the course has been completed. See the UTSC co-ordinator, Professor D.D. Williams for further details.
Prerequisite: [BGYS5H1] or [BGYS5H1] or (BGYS5Y1) or permission of instructor.

BGYO1Y3 Supervised Study in Biology
A course designed to permit intensive examination of the literature of a selected topic and/or laboratory or field project in biology. Supervision of the work is arranged by mutual agreement between student and instructor.
Students must obtain a permission form from the Life Sciences Office (S5213H) 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.
Exclusion: BIO610Y, ZO0201Y
Prerequisite: Satisfactory completion of 13.5 full-credit equivalents, of which at least four must be Biology B- or C-level courses and permission of the instructor.
BOGD2H1 Directed Research in Biology

Identical to BOGD2Y1 but intended as a second research experience. In order to be eligible for BOGD2Y1, with the same instructor, the student and the instructor will have to present a plan of study that goes beyond the work of BOGD2Y1.
Exclusion: BOG766Y, ZOO909Y
Prerequisite: Satisfactory completion of 1.35 full-credit equivalents of which at least four must be Biology II, or C-level courses and permission of the instructor.

BOGD2H2H Topics in Cellular and Molecular Neurobiology

A lecture/seminar course on recent advances in cellular and molecular neurobiology. Based on readings of the primary literature students will examine papers that address questions of neural function. Topics may include: synaptic transmission, synaptic plasticity, and membrane excitability. Offered in alternate years with NRCC3H1. Limited enrolment: 25
Prerequisite: [BOGY200H1 or NRCC600H1] & BOGY121H

BOGD2H3 Molecular Biology Laboratory I: Host, Vectors and Cloning

Applications of molecular technology continue to revolutionize our understanding of all areas of life sciences from biotechnology to human disease. This intensive laboratory, lecture/tutorial course provides students with essential information and practical experience in recombinant DNA technology, molecular biology and bio-informatics. Limited enrolment: 24
*Priority will be given to students enrolled in the Specialist Programs in Cell and Molecular Biology (Co-op and non-Co-op). Additional students will be admitted only if space permits.
Prerequisite: BOGY121H & BOGY131H & [BOGY111H or UMCB114H & IMCB201H (for Industrial Microbiology students only)]

BOGD2H3H Genetics

A course considering the principles of genome organization and the utilization of genomic approaches to studying a wide range of problems in biology. Topics to be presented will include innovations in instrumentation and automation, functional genomics, transcription profiling (microarrays), database mining and extensions to human and animal health and biotechnology.
Limited enrolment: 66
Prerequisite: BOGY131H
Corequisite: BOGY121H. Note: Although listed as a corequisite, it is recommended that BOGY121H be taken in advance of BOGD2H3H.

BOGD2H4H Molecular Biology Laboratory II: Nucleic Acids & Proteins

A laboratory course offering hands-on experience in a range of molecular techniques at the nucleic acid and protein level.
The course will be organized around a central theme, namely the expression of host shock (stress) genes that encode proteins important in cellular repair and protective mechanisms. Intensive laboratory course.
Limited enrolment: 24
*Priority will be given to students enrolled in the Specialist Programs in Cell and Molecular Biology (Co-op and non-Co-op). Additional students will be admitted only if space permits.
Corequisite: BOGD211H

BOGD2H4H Special Topics in Cell Biology and Molecular Genetics

A lecture/seminar/discussion class on contemporary topics in Cell Biology and Molecular Genetics.
Students will explore the primary literature becoming familiar with experimental design and methodologies used to decipher biological phenomena. Student seminars will follow a series of lectures and guest speakers.
Priority will be given to students enrolled in the Specialist Programs in Cell and Molecular Biology (Co-op and non-Co-op). Additional students will be admitted only if space permits.
Limited enrolment: 24
Prerequisite: BOGY151H & BOGY121H or IMCB101H plus IMCC3H1 (for Industrial Microbiology students only)

BOGD2H5 Comparative Environmental Physiology

This course will focus on the comparative aspects of animal physiology and address how various physiological systems are specialized to meet many of the environmental challenges encountered by terrestrial and aquatic environments.
Prerequisite: BOGY131H or BOGY141H

BOGD2H7H Biology of Plant Stress

This course examines resistance mechanisms (anatomical, cellular, biochemical, molecular) allowing plants to avoid or tolerate diverse abiotic and biotic stresses. Topics include: pathogen defense, responses to temperature, light, water and nutrient availability, salinity, and oxygen deficit; stress perception and signal transduction; methods to study stress responses; and strategies to improve stress resistance.
Limited enrolment: 35
Prerequisite: [BOGY100H & BOGY111H] or BOGY101Y & [BOGY131H or BOGY130Y]

BOGD4H3 Animal Communication

Behavioral ecology of signal evolution; decision-making and signal design; the physics and physiology of transmitting signals.
Prerequisite: [BOGY100H or BOGY130Y] or [NRCC300H1] & [BOGY101H or BOGY131H] or [BOGY130Y] & BOGY141H Corequisite: MAT15AH1 or MAT130H1 or MAT27H

BOGD5H3 River Ecology

The course will begin with an introduction to stream hydrology and sediments, and the adaptations of plants and animals to life in a dynamic habitat. Later topics will cover micro- and macro-distribution of stream fishes and the problems of quantitatively sampling them; biotic interactions; community structure and stability; colonization patterns following disturbance; energy transformations; estimates of production; and man's effects on rivers. There is a considerable field and laboratory component which assesses the impact of human activity on three local rivers.
Limited enrolment: 20
Exclusion: BSC300Y
Prerequisite: [BOGYB5H1 or BOGY131H] or [BOGYB5H1]

BOGD5H2 Senior Seminar in Conservation Biology

A senior-level seminar course to further students' exposure to conservation biology in scientific literature. Students will read assigned papers from the conservation literature, then present them to the class and participate in discussions.
Limited enrolment: 40
Prerequisite: BOGY131H, GGAA02H

BOGD5H2 Landscape Ecology

The study of large-scale ecological patterns and processes, emphasis on when and how to integrate large-scale perspective into ecological questions. Topics include: species-area relationships, island biogeography, meta-population theory, individual-based models, cellular automata, models of biodiversity with applications to species viability, ecosystem management, design of nature reserves. Project and paper required.
Priority will be given to students enrolled in the Specialist Program in Conservation Biology.
Prerequisite: BOGY131H or BOGY131H & STARS2H & STARS2H
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 CHMA16H, CHMA11H, MAT3A1H(MAT3A1H), MAT3A2H(MAT3A2H), 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 Chemistry 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.

SPECIALIST PROGRAM IN BIOLOGICAL CHEMISTRY
Supervisor: W. Rentivo (416-287-7220) Email: rentivo@utsc.utoronto.ca
This program is intended for students who want to specialize in Chemistry, but who are also interested in the chemistry of living systems.

Program Requirements
The program requires the completion of the following 15.0 FCEs (full credits 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
MAT3A1H Calculus I
MAT3A2H Calculus II for Biological Sciences
MAT3A3H Calculus II for Physical Sciences
MAT3A4H Calculus II for Mathematical Sciences
PHYA10H Introduction to Classical Physics
PHYA21H Introduction to Modern Physics

Note: MAT3A1H is a prerequisite for CHMC21H and MAT3A2H(MAT3A3H) is a prerequisite for MATD41H. MATD50H(MATD51H) is strongly recommended over MATA51H in order that future course selection is not compromised.

Second Year:

BOVB10H Cell Biology
BOYB11H Molecular Aspects of Cellular and Genetic Processes
BOYB21H Laboratory for Cell and Molecular Biology
CHMB31H Introduction to Inorganic Chemistry
CHMB41H Organic Chemistry I
CHMB42H Organic Chemistry II

Second or Third Year:

CHMB91H Techniques in Analytical Chemistry
CHMD20H Chemical Thermodynamics and Elementary Kinetics
CHMD31H Chemical Structure and Spectroscopy
Third Year:
- BGYC13H Biochemistry I: Proteins and Enzymes
- BGYC13H Biochemistry II: Biometabolism and Metabolism
- BGYC23H Practical Approaches to Biochemistry
- CHMC47H Bio-Orginic Chemistry

Third or Fourth Year:
- CHMC11H Principles of Analytical Instrumentation
- CHMC31Y Intermediate Inorganic Chemistry
  [CHMC41H Organic Reaction Mechanisms or CHMC42H Organic Synthesis]

Fourth Year:
- PSCC302H Current Questions in Mathematics and Science
At least 0.5 FCE from the following:
  - BGYD30Y Supervised Study in Biology
  - BGYD40Y Directed Research in Biology
  - CHMD99Y Directed Research
  - CHMD91H Directed Research
  - PSCC301H Physical Sciences Project

And, in appropriate years 1.0 FCE (1.5 FCE if CHMD91H or PSCC301H is taken) from the following list:
- MATB41H Techniques of Calculus of Several Variables I
- CHMD55H Environmental Chemistry
- PSCC307H Introduction to Scientific Computing
  Or any other C- and D-level Chemistry or PSC courses, and C- or D-level BGY courses for which [BGYB301H or BGYB311H] is a prerequisite.

**SPECIALIST PROGRAM IN CHEMISTRY**
Supervisor: A. Simpson (416-287-9347) Email: asimpson@utsc.utoronto.ca
This Program is meant for students who are interested in obtaining a strong background in all aspects of modern chemistry.

**Program Requirements**
The Program requires completion of 14.0 FCEs (full credit equivalents) as follows:

**First Year:**
- CHMA101H Introductory Chemistry I: Structure and Bonding
- CHMA111H Introductory Chemistry II: Reactions and Mechanisms
- MATA301H Calculus I
  [MATA306H Calculus II for Physical Sciences or MATA371H Calculus II for Mathematical Sciences]
- PHYA108H Introduction to Classical Physics
- PHYA211H Introduction to Modern Physics
  And 1.0 FCE chosen from:
  - ASTA01H Introduction to Astronomy and Astrophysics I: The Sun and Planets
  - ASTA02H Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
  - BGYA01H Introductory Biology: Part I
  - BGYA02H Introductory Biology: Part II
  - EESA05H Environmental Hazards
  - EESA06H Introduction to Planet Earth
  - MATA231H Linear Algebra I
  - PSCB37H Introduction to Scientific Computing
  - STAR2H Statistics

**Second Year:**
- CHMB101H Techniques in Analytical Chemistry
- CHMB201H Chemical Thermodynamics and Elementary Kinetics
- CHMB211H Chemical Structure and Spectroscopy
- CHMB311H Introduction to Inorganic Chemistry
- CHMB411H Organic Chemistry I
- CHMB421H Organic Chemistry II
- MATB411H Techniques of Calculus of Several Variables I

**Third Year:**
- CHMC111H Principles of Analytical Instrumentation
- CHMC41H Analytical Instrumentation
- CHMC421H Topics in Biophysical Chemistry
- CHMC31Y Intermediate Inorganic Chemistry
  [UCHMC11H Organic Reaction Mechanisms or CHMC42H Organic Synthesis]

**Fourth Year:**
- PSCC302H Current Questions in Mathematics and Science
  And 2.0 FCEs chosen from:
  - CHMC41H Bio-Orginic Chemistry
  - CHMC42H Organic Synthesis
  - CHMC41H Organic Reaction Mechanisms
  - Any D-level or 400-level CHM course.
  - Other D-level courses upon approval of Program Supervisor.
  And 1.0 FCE chosen from:
  - CHMD99Y Directed Research
  - CHMD91H Directed Research
  - PSCC301H Physical Sciences Project

**MAJOR PROGRAM IN CHEMISTRY**
Supervisor: C. Tew (416-287-7220) Email: cte@utsc.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:**
- CHMA101H Introductory Chemistry I: Structure and Bonding
- CHMA111H Introductory Chemistry II: Reactions and Mechanisms
- MATA301H Calculus I
  [MATA351H Calculus II for Biological Sciences or MATA361H Calculus II for Physical Sciences or MATA371H Calculus II for Mathematical Sciences]
- PHYA108H Introduction to Classical Physics
- PHYA211H 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 CMB20H1/CMB22H1, then MAT30H1, MAT33H4/MAT37H4, PHY110H1 & PHY21H1 are prerequisites; if CMB21H1 is chosen, then CHM32H1, CHM32H2 and MAT34H1 are prerequisites.

MAJOR PROGRAM IN BIOCHEMISTRY
Supervisor: J. Potter (416-287-7222) Email: potter@utsc.utoronto.ca
This Program places a greater emphasis on the biological aspects of chemistry than does the general Chemistry Major Program. It is offered for students who are primarily interested in chemistry but also want to study the chemistry of living systems.

Program Requirements
Students should complete the following 8.0 FCEs (full credit equivalents):

First Year:
BGBY0H1 Introductory Biology: Part I
BGBY02H1 Introductory Biology: Part II
CHMA1H1 Introductory Chemistry I: Structure and Bonding
CHMA1H2 Introductory Chemistry II: Reactions and Mechanisms

Second and Later Years:
BGBY10H1 Cell Biology
BGBY11H1 Molecular Aspects of Cellular and Genetic Processes
BGBY12H1 Cell & Molecular Biology Laboratory
BGBY12H2 Biochemistry I: Proteins & Enzymes
BGBY13H1 Biochemistry II: Bioenergetics & Metabolism
BGBY13H2 Practical Approaches to Biochemistry
CMB21H0 Techniques in Analytical Chemistry
CMB21H1 Organic Chemistry I
CMB21H2 Organic Chemistry II
CHM14H1 Organic Reaction Mechanisms or
CHM14H0 Organic Synthesis
CHM14H1 Bio-Organic Chemistry

And 0.5 FCE from the following:
CMB21H0 Chemical Thermodynamics and Elementary Kinetics
CMB21H1* Chemical Structure and Spectroscopy
CMB21H2 Introduction to Inorganic Chemistry
CMB21H2 Environmental Chemistry
CMB21H1 Principles of Analytical Instrumentation
CMB21H2 Analytical Instrumentation
CMB21H2 Topics in Biophysical Chemistry
CMB21H2 Intermediate Inorganic Chemistry
CMB21H2 Organic Synthesis
or
CMB21H1 Organic Reaction Mechanisms
* If CMB21H0/CMB22H1 are chosen, MAT30H1, MAT35H4/MAT37H4, PHY110H & PHY21H1 are required.

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

SPECIALIST PROGRAM IN NATURAL 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. This course includes a three-hour laboratory every other week.
Exclusion: CHM13H1, CHM13H2, CMB40Y1, CMB51Y1, (CHM14H0)
Prerequisite: [Grade 12 or OAC Chemistry] & [Grade 12 or OAC Calculus]
Comprehensive: None, but [MAT39H1 or [MAT31H1]] & [MAT35H1 or MAT35H2 or MAT37H1] are strongly recommended. [MAT35H1 or (MAT31H1)] & [MAT35H1 or (MAT31H1)] & [MAT35H1 or (MAT31H1)] are required for some higher level and other Physical and Environmental Sciences courses.

CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
In this course reactions and equilibria in chemical systems are explored through their thermodynamic properties and chemical kinetics. Acid-base and redox equilibria will be covered and some reactions of organic molecules will be introduced. This course includes a three-hour laboratory every other week.
Exclusion: CHM13H1, CHM13H2, CMB40Y1, CMB51Y1, (CHM14H0)
Prerequisite: CHMA10H1
Comprehensive: None, but [MAT33H1 & MAT33H1] & [MAT33H1 or MAT33H1 or MAT37H1] are strongly recommended. [MAT35H1 or MAT33H1] & [MAT35H1 or MAT33H1] are required for some higher level and other Physical and Environmental Sciences courses.

CHMB16H3 Techniques in Analytical Chemistry
An introduction to the principles and methods of classical analysis and the provision of practical experience in analytical laboratory techniques. The course deals primarily with qualitative chemical analysis. Classical methods of volumetric analysis, sampling techniques, statistical handling of data are studied, as well as a brief introduction to spectrochemical methods. This course includes a four-hour laboratory every week.
Exclusion: CMB21H1
Prerequisite: CHMA10H1 & CHMA11H1
Recommended: CMB22H1

CMB22H2 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: (CMB21H2), CMB22H1, CMB23Y1
Prerequisite: [CHMA10H1 & CHMA11H1] & [MAT30H1 or (MAT31H1)] & [MAT35H1 or MAT35H2 or PHY110H]. Note that PHY110H1 and MAT34H1 are prerequisites for the C-level physical chemistry courses.

CMB21H2 Chemical Structure and Spectroscopy
Atomic structure and spectra; tens symbols and their meaning; valence bond theory; LCAO-MO; molecular spectroscopy.
Exclusion: (CMB22Y2), CMB22H3, CMB23Y1
Prerequisite: CMB20H1. Note that this implies all the prerequisites for that course as well.

CMB21H3 Introduction to Inorganic Chemistry
Fundamentals of coordination, solid state and descriptive Inorganic Chemistry. Structures, bonding and reactivity of transition metal coordination compounds; solid state structures and energies, selected chemistry of non-transition elements. Examples will be taken from environmentally and biologically important inorganic compounds.
Prerequisite: CHMA10H1 & CHMA11H1
CHMB41H3 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, aldehydes, and ketones. Substitution and elimination reactions. This course includes a four hour laboratory every other week. Exclusion: (CHMB44Y), CHMB44H, CHMB51Y, CHMB44Y, CHMB42H, CHMB47Y, CHMB54H. Prerequisite: CHMA10H or CHMA01Y.

CHMB42H3 Organic Chemistry II
Spectroscopy of organic compounds. Aromatic substitution, Chemistry of Carboxyl compounds. An introduction to the chemistry of biologically important compounds, including terpenes, carbohydrates, amino acids, and nucleic acids. This course includes a four hour laboratory every other week. Exclusion: (CHMB44Y), CHMB51Y, (CHMB44Y), CHMB47Y, (CHMB44Y), CHMB49H. Prerequisite: CHMB41H.

CHMB55H3 Environmental Chemistry
An investigation of aspects of chemical substances and processes as they occur in the environment, including both naturally occurring and synthetic chemicals. This course will include an introduction to atmospheric chemistry, aquatic chemistry, some agricultural and industrial chemistry, and chemical analysis of contaminants and pollutants. Exclusion: CHMB10H. Prerequisite: CHMA10H & CHMA11H.

CHMC11H3 Principles of Analytical Instrumentation
An introduction to the workings of modern analytical instrumentation. Principles of measurement; detection of photons, electrons and ions; instrument and experiment design; amplification methods; noise reduction techniques and signal-to-noise optimization. Emission and absorption spectroscopy, electrochemical methods and separation techniques will be covered. Exclusion: (CHMB31Y). Prerequisite: CHMB11H. Recommended: CHMB24H & CHMB21H.

CHMC16H3 Analytical Instrumentation
A laboratory course to complement CHMC11H Principles of Analytical Instrumentation. This course provides a practical introduction and experience in the use of modern analytical instrumentation with a focus on the sampling, sample preparation (extraction, clean-up, concentration, derivatization), instrumental trace analysis and data interpretation of various pharmaceutical, biological and environmental samples. This course includes a four hour laboratory every week. Exclusion: (CHMB41Y). Prerequisite: CHMB11H.

CHMC26H3 Intermediate Physical Chemistry
Basic statistical mechanics and applications to thermo-chemistry and kinetics; intermolecular interactions; concepts in reaction dynamics. Prerequisites: CHMB22H, CHMB21H, & MATB41H. Prerequisite: CHMB41H.

CHMC29H3 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. Prerequisites: CHMB21H & CHMB21H & MATB41H.

CHMC31Y3 Intermediate Inorganic Chemistry
A more detailed discussion (than in CHMB31Y) of the structure, bonding, spectroscopy, and reactivity of main group, transition metal and organo-metallic compounds. Special topics may include inorganic solids and materials, biologically and environmentally important inorganic compounds, and catalysis. The laboratory will introduce a variety of synthetic techniques, with characterization of products by both classical and instrumental methods. This laboratory is six hours in duration and occurs every week. Prerequisite: CHMB31H. Strongly recommended preparation: CHMB11H, CHMB26H, CHMB21H, CHMB41H & CHMB42H.

CHMC43H3 Organic Reaction Mechanisms
Theory and mechanisms of organic reactions; principles of structure, introduction to stereochemistry, spectroscopy and polymers. Theories of bonding. The laboratory experiments are designed to complement the topics covered in lectures. Offered in alternate years with CHMB43H. This course includes a three hour laboratory every week. Exclusion: CHMB42H. Prerequisites: CHMB41H & CHMB42H.

CHMC42H3 Organic Synthesis
Principles of synthesis organic and functional group transformations; computed stereo-chemistry, spectroscopy and structure elucidation. Offered in alternate years in rotation with CHMC41H. This course includes a three hour laboratory every week. Exclusion: CHMB41H. Prerequisite: CHMB41H & CHMB42H.

CHMC47H3 Bio-Organic Chemistry
The chemistry of heterocycles, nucleic acids, terpenes, steroids and other natural products; amino acids, proteins and carbohydrates; introduction to enzyme structure and catalysis. Exclusion: CHMB47Y. Prerequisites: CHMB41H & CHMB42H.

CHMC29H3 Topics in Physical Chemistry
Advanced topics in physical chemistry will be offered at a research level. The exact topic will be announced in the Winter Session 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 ten 2-C Level Chemistry courses, and who are pursuing one of the Chemistry Programs.

CHMB50H3 Topics in Environmental Chemistry
Advanced topics in environmental chemistry will be covered at a modern research level. The exact topic will be announced in the Winter Session prior to the course's being offered. Prerequisite: Permission of the instructor. Normally recommended for individuals who have completed fifteen full credit equivalents including at least ten 2-C Level Chemistry courses, and who are pursuing one of the Chemistry Programs.

CHMB57H3 Topics in Biological Chemistry
Advanced topics in biological chemistry will be covered at a modern research level. The exact topic will be announced in the Winter Session prior to the course's being offered. Prerequisite: Permission of the instructor. Normally recommended for individuals who have completed fifteen full credit equivalents including at least ten 2-C Level Chemistry courses, and who are pursuing one of the Chemistry Programs.
The name of the proposed supervisor, with his/her signature indicating approval
A brief description of the planned research
A list of relevant courses already passed and to be taken during the current session.
Generally, only students who have completed 15 credits in total including at least 1.0 PCE of C-level CHM courses containing a lab component (i.e. CHCM61H, CHCM31H, CHCM41H/CHCM42H, BOYC23H) will be accepted into the course. Research supervisors should normally be members of the CSM group at UTSC. Potential supervisors outside these groups must identify a co-supervisor who is a member of the CSM 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.

Note for students planning to register in CHMD39Y or CHMD39H:
Students should apply to the Program Supervisor of Studies by June 20th to be admitted into the course. The Program Supervisor of Studies (or designate) is the only one permitted to give "permission of instructor" Application will consist of:

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):
   - ANTH60H Introduction to Anthropology: Becoming Human
   - ANTH02H Introduction to Anthropology: Culture, Society and Language
   - HILTA01H Plagues and Peoples
   - [POLA53H Critical Issues of Canadian Democracy or POLI50H] Canada's Political Institutions
   - Any other A-level course in Political Science

2. Sociology I
   - S0CA03H Introduction to Sociology I
   - S0CA02H Introduction to Sociology II
   - GRG802H The Geography of Global Processes
   - GGRA03H Cities and Environments
   - [ECMA06H Introduction to Microeconomics or ECMA04H Introduction to Microeconomics: A Mathematical Approach or ECMA05H Introduction to Macroeconomics or ECMA056H Introduction to Macroeconomics: A Mathematical Approach]

3. Fundamentals of City Studies (at least 2 full credits from among the following):
   - ANTH560H Health and the Urban Environment
   - [EESA05H Environmental Hazards or EESA06H] Introduction to Planet Earth
   - GGRB00H Urban Geography
   - GGRB06H Planning in Canada
   - GGRB01H Real Estate and the City
   - GGRB13H Social Geography
   - GGRB28H Geographies of Disease
   - GGRG27H Location and Spatial Development
   - SOC844H Urban Sociology: Macros-Analysis
   - SOC845H Urban Sociology: Micro-Analysis
   - WSTI83H Women: Issues of Violence and Safety

4. Methods (at least 1 full credit from among the following):
   - SOCB841H Qualitative Methods in Social Research
   - SOCB844H Quantitative Methods in Social Research
   - SOC8306H Social Statistics

5. STAB231H Statistics I
   - [GRGA20H GIS and Empirical Reasoning or EESA04H] GIS for the Beginning Student

6. EESCI03H Geographic Information Systems and Remote Sensing

7. Applications (at least 1.5 full credits from among the following):
   - ANTC390H Foundation and Theoretical Issues in Anthropological Demography
   - ANTC40H Methods and Analysis in Anthropological Demography
   - EESC21H Urban Environmental Problems of the Greater Toronto Area
   - ENGD991H Studies in the Victorian Period
MAJOR (CO-OPERATIVE) PROGRAM IN CITY STUDIES

Supervisor of Studies: L. Chan Email: chan@utsc.utoronto.ca
Advisor: L. Chan Email: chan@utsc.utoronto.ca
Co-op Contact: R. Loudon Email: rcl@utsc.utoronto.ca

Graduates will receive an Honours B.A. degree where 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.

CLASSICAL STUDIES

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.

CITD01H3 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.

Prerequisite: 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. (Cananda), Professor Emeritus
J.R. McDonald, B.A. (Alberta) Ph.D. (N. Carolina), Associate Professor
Discipline Representative: J.R. McDonald (416-287-7158)

Classical Studies introduces the student to the Greek and Roman World, its literature, history, religion and government. Graeco-Roman civilization was the forerunner 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 are alive in English translation, and the computer-based Perseus project in UTSC Library presents sophisticated multi-media opportunities for exploring the ancient Greek and Roman world.

MINOR PROGRAM IN CLASSICAL STUDIES

Supervisor of Studies: J.R. McDonald (416-287-7158) Email: tmdonald@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. CLA002H Classical Mythology I: Myths of the Gods
2. CLA003H Classical Mythology II: Myths of the Heroes
3. CLA005H The Mediterranean World I: Greece
4. CLA006H The Mediterranean World II: Rome
3. Two half credits (one full credit equivalent) from:
   CLAB104H Greek & Latin for Scientists
   CLAB200H The Classical World in Film
   CLAB207H Army and Empire in the Roman World
   VPH341H The Human Figure in Greek Art (8th-4th Centuries B.C.)
   VPH352H Ancient Art and Architecture (ca. 900 B.C. to 390 A.D.)

4. CLAC01H Selected Topics in Classical Literature
   and
   One of:
   CLAC02H Selected Topics in Classical Civilization
   CLAC227H Classics and the Computer
   CLAC411H Slavery in the Roman Economy
   VPH448H Topics in Art of the Ancient World

CLAC201H Classical Mythology I: 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: (CLAAC50Y), CLA204H, CLAB05Y

CLAC303H 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 Greek-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, revenge and honor.
Exclusion: (CLAAC50Y), CLAB04H, CLAB05Y

Recommended preparation: CLA003H

CLAC203H The Mediterranean World I: Greece
A survey of the history of the near east and Greece in the classical period (600-200 B.C.). Emphasis on the Mediterranean region in relation to Africa, the Middle East and Europe, in its distinctive environment and the natural processes which shaped the societies which flourished there.
Exclusion: (CLA005Y), CLA210H

CLAB203H The Mediterranean World II: Rome
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: (CLA209Y), CLA251H
Recommended preparation: CLAB06H

CLAC203H Greek and Latin for Scientists
The role of classical Greeks 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: CLAB01H, (CLA211H)

CLAB203H 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 filmakers, their use of spectacular 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: CLAC03H
Recommended preparation: (CLA002Y) or CLA002H or CLA003H

CLAC203H 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 as 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.
Prerequisite: (CLA002Y) or (CLA026H or CLA001H) or (CLA003Y) or CLAB04H or [HSA01H & HSA01H] or (HSA01Y)

CLAC204H 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: CLA300H, (CLA305Y)
Prerequisite: One full credit in Classics or in English or another literature

CLAC205H Selected Topics in Classical Civilization
A detailed study of a theme in Classical Civilization.
Topics will vary from session to session and may be drawn from such areas as the archaeological history of the Roman world, Greek and Roman religion, ancient education or Roman law.
Prerequisite: One full credit in Classics or History

CLAC302H Classics and the Computer
An independent research project using the resources of the computer and the internet.
Under the supervision of a member of faculty, the student will create a web page or "virtual" pathway on a topic to be selected in consultation with the supervisor.
Prerequisite: 2 full credits in Classics & permission of the instructor

CLAC411H Slavery in the Roman Economy
The essential features of Roman economic organization (agriculture, manufacturing and trade) and the role of slavery within that economy.
The role of slavery at Rome, the role of slaves in agriculture and pasteurism, literary images of slavery, slave revolts and resistance, the "accommodation" of Roman society to slavery.
Prerequisite: (CLA005Y) or CLAB03H or [HSA01H & HSA01H] or (HSA01Y)

Cognitive Science
(B.Sc.)

Faculty List
A. Kudla, A.R., M.A., Ph.D. (UCLA), Professor Emeritus
M.C. Smith, B.A. (Toronto), Ph.D. (MIT), Professor Emeritus
K.I. Hirnack, B.A. (CUNY), M.A., Ph.D. (Chicago), Professor
G. Hirst, B.A., B.Sc., M.Sc., (Cambridge), Ph.D. (Brom, Professor
J.M. Kennedy, B.Sc., M.Sc. (Belfast), Ph.D. (Cornell), Professor
M.A. Schmickler, B.A. (SUNY-Binghamton), Ph.D. (Cornell), Professor
W.E. Senger, M.A. (Alberta), Ph.D. (Toronto), Professor
S. Scully, B.A. (Toronto), Ph.D. (Pittsburgh), Associate Professor
R. Smyth, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor
G.S. Creu, B.A., M.A., Ph.D. (Western), Assistant Professor

Supervisor of Studies: W.E. Senger, (Room HH/322, 416-287-7151)
Email: senger@unte.university.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 in 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 brains? The Cognitive Science Programs (Major and Program) 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
LINA001H, LINA003L, PHLA110H, PHLA111L, PSY401H and PSY402H recommended in first year if intending to pursue a Specialist or Major Program in Cognitive Science.

SPECIALIST PROGRAM IN COGNITIVE SCIENCE
Supervisor of Students: W. E. Seager, (Room 1W322, 416-287-7151)
Email: seager@sssc.utoronto.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:
LINA011H General Linguistics I
LINA012H General Linguistics II
PHLA110H Introduction to Philosophy: Reason and Truth
PHLA111H Introduction to Philosophy: Value and Society
PSY401H Introductory Psychology: Part I
PSY402H Introductory Psychology: Part II
LINA001H Practical Language Analysis: Phonology
LINA003L Practical Language Analysis: Syntax
PHLB150H Belief, Knowledge and Truth
PHLB101H Foundations of Cognitive Science
PSYB071H Data Analysis in Psychology
PSYB150H Perception and Cognition
PSYB151H Memory and Cognition
LINA004H Practical Language Analytic Morphology
PHLB111H Theories of Mind
PSYC541H Cognition and Representation
PLIC356H Psycholinguistics
[CSCA081H Introduction to Computer Programming or CSCA481H] Introduction to Computer Science

Note: (1) Students with no familiarity with the use of computers would be advised to take CSCA081H in their first year, followed by CSCA081H in the following year. Students having familiarity with computers, but no computer programming skills, may wish to take CSCA081H in the first or second year. Only students with computer programming experience should attempt CSCA481H without first taking CSCA081H. 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:
PSYB20H Introduction to Developmental Psychology
PSYB30H Human Brain and Behaviour
PSYC00H Advanced Data Analysis in Psychology
PSYC201H Developmental Psychology Laboratory
PSYC60H Music Cognition
PSYC301H Cognitive Psychology Laboratory
PSYC301H History of Psychology
PSYD401H Current Topics in Memory and Cognition
PSYD51H Current Topics in Perception
PSYD54H The Scientific Study of Conscious and Unconscious Influences
PSYD601H Seminar in Computational Cognitive Neuroscience
NRBO001H Neuroscience I: Cell Anatomy and Physiology
NRBO511H Neuroscience II: Learning and Motivation
NRBO641H Neuroscience III: Sensory and Motor Systems
NRBO644H Synaptic Organizations of the Brain
COGCI81H Supervised Study in Cognitive Science

2. Linguistics
One half credit chosen from the following:
LINA001H Phonetics: The Study of Speech Sounds
LINA171H Structure of English
LICA121H Semantics: The Study of Meaning
PLIB251H Second Language Learning
PLIC345H Developmental Psycholinguistics
PLID411H Acquisition of the Mammal Lexicon
PLID511H Disorders of Speech and Language
COGCI81H Supervised Study in Cognitive Science

3. Philosophy and Theoretical Psychology
One half credit chosen from the following:
PHLB101H Symbolic Logic I
PHLB102H Philosophy of Science
PHLB103H Philosophy of Language
PSYC201H Theoretical Psychology
PSYD251H Fundamental Issues in Cognitive Science

4. Cognate Courses
One full-credit equivalent chosen from the following:
MATATA3H Linear Algebra I
[MATA353H Calculus I (OQC)]
[MATA355H Calculus II for Biological Sciences or MATATA3H Calculus II for Physical Sciences or MATATA7H Calculus II for Mathematical Sciences or MATB41H Linear Algebra II or MAT091H Introduction to Mathematical Logic or CSIC071H Software Design or CSIC381H Introduction to the Theory of Computation or CSIC385H Discrete Mathematics for Computer Science or CSIC381H Computer Organization or CSIC701H Fundamental Data Structures and Techniques or One half course in Anthropology at the B-level or higher.

Note: It is expected that most students will take MATA301H (MATA311H) and MATA351H to fulfill their cognate course requirements.
Computer Science

Faculty List
W. H. Enright, B.Sc., U.B.C., M.Sc., Ph.D., (Toronto), Professor
D. J. Fleet, B.Sc. (Queen's), M.Sc., Ph.D., (Toronto), Professor
V. Hadzhipanayiotou, B.Sc., Ph.D. (Harvard), Professor
G. Firth, B.A., B.Sc. (Monash), M.Sc., (A.N.U., U.B.C.) Ph.D. (Brown), Professor
M. Molloy, Ph.D. (Carnegie Mellon), Professor
N. Koudas, B.Sc. (Patras), M.Sc. (Maryland), Ph.D. (Toronto), Assistant Professor
N. Cheng, B.Sc., Senior Lecturer
R. Pancer, B.Sc., M.Sc., (Toronto), Senior Lecturer
A. Rossiter, B.Sc. (N.C.S.U.), M.Sc., Ph.D. (Toronto), Senior Lecturer
A. Bretscher, B.Sc., M.Sc., (Queen's), Ph.D. (Toronto), Lecturer
C. Jansen, B.Sc., M.Sc., (Toronto), Lecturer
M. Szamosi, B.A., (Brandeis), M.A., (Harvard), Lecturer
Associate Chair—M. Molloy (416-287-7255)

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 language's text. One of the fundamental concepts in computer science is the algorithm—a set 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 CSCB75H, are limited enrolment with preference being given to students admitted to and enrolled in CSC program. If, towards the end of the registration period, spaces become available in CSC courses, registration may be opened up and some non-program students may be admitted on a first-come first-served basis. The following rules will apply:

• 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 CSCB75H
• 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 1st year GPA and their marks in Computer Science and Mathematics courses. The minimum GPA to guarantee acceptance is calculated annually. It is 2.00 for this year and for this year it will not be greater than 2.60.
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 2.60 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. 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.)
One of:
- ANTA01H Introduction to Anthropology: Becoming Human
- ANTA02H Introduction to Anthropology: Society, Culture and Language
- GLAA02H Classical Mythology I: Myths of the Gods
- ENGA10H Introduction to Literary Study: 1890 to World War II
- ENGA11H Introduction to Literary Study: 1945 to Today

ENGB09H Canadian Literary Traditions
ENGB07H Nation in Canadian Writing
ENGB05H Collisions of Culture and the Emergence of a Liberal Nation
ENGB09H American Literature from the Civil War to the Present
ENGB11H Contemporary Literature from the Caribbean
ENGB19H Contemporary Literature from South Asia
ENGB55H Women and Literature: Forgiving a Tradition
ENGB51H Gender and Genre
GGR401H The Geography of Global Processes
GGR403H Cities and Environments
GGRB55H Urban Geography
GGRB69H Planning in Canada
HSAA09 The Twentieth Century World I
HLT41H Plagues and Pooples
LGG41H Introduction to Canadian Culture and Society: A Course for Non-Native Speakers of English
LGG41H Introduction to Academic Writing Process: A Course for Non-Native Speakers of English
LGG49H Linguistic Concepts for Effective Writing
LING41H General Linguistics I
PHLA41H Reason and Truth
PHLA41I Introduction to Ethics
WSTA41H Introduction to Women's Studies

A-level courses
CSCA01H Introduction to Computer Programming
CSCA41H Introduction to Computer Science
CSCA55H Mathematical Expression and Reasoning for Computer Science
MATA23H Linear Algebra I
MATA30H Calculus I
MATA31H Calculus II for Mathematical Sciences

B-level courses
CSCB01H Software Design
CSCB01H Software Tools and Systems Programming
CSCB33H Introduction to the Theory of Computation
CSCB55H Computer Organization
CSCB60H Design and Analysis of Data Structures
MATB24H Linear Algebra II
MATB41H Techniques of the Calculus of Several Variables I
MATB42H Techniques of the Calculus of Several Variables II
STAT32H Introduction to Probability Theory

C-level courses
CSCC31H Principles of Programming Languages
CSCC43H Introduction to Databases
CSCC50H Numerical Algebra and Optimization
CSCC51H Numerical Approximation, Integration and Ordinary Differential Equations
CSCC63H Computability and Computational Complexity
CSCC69H Operating Systems
CSCC73H Algorithm Design and Analysis

D-level courses
CSCD03H Social Impact of Information Technology
Elective courses, all levels
Two of (additional courses related to the practice of computing):
CSCC46H1 Programming on the Web
CSCC48H1 Analysis and Design of Information Systems
CSCC58H1 Microprocessor Systems
CSCD00H1 Software Engineering
CSCD18H1 Computer Graphics
CSCD18H1 Database System Technology
CSCD38H1 Computer Networks
CSC321H Introduction to Neural Networks and Machine Learning
CSC377H Microprocessor Software
CSC384H Introduction to Artificial Intelligence
CSC420H1 Human-Computer Interaction
CSC454H1 The Business of Software
CSC469H1 Operating Systems Design and Implementation
CSC480H1 Computational Linguistics
CSC488H1 Compilers and Interpreters
Two of (additional fundamental Mathematics courses):
MAT240H1 Introduction to Analysis
MAT244H1 Ordinary Differential Equations
MAT257H1 Groups and Symmetry
MAT275H1 Fields and Groups
MAT275H1 Introduction to Number Theory
MAT347H1 Complex Variables
MAT355H1 Chaos, Fractals and Dynamics
One of (additional courses related to the theory of computing):
MAT136H1 Linear Programming and Optimization
MAT266H1 Introduction to Mathematical Logic
MAT286H1 Coding Theory and Cryptography
MAT321H1 Graph Theory and Algorithms for Its Applications
MAT348H1 Introduction to Combinatorics
CSCA86H1 Computability and Logic
CSCB46H1 Computational Methods for Partial Differential Equations
CSCB48H1 Formal Languages and Automata
CSCB56H1 High-Performance Scientific Computing
CSCC46H1 Formal Methods in Software Design

2. Information Systems Stream
Supervisor of Studies: R. Pancer (416-287-7679) Email: panzer@rms.utoronto.ca
Note: Due to enrolment 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.

A-level courses
CSCA48H1 Introduction to Computer Programming
CSCA48H1 Introduction to Computer Science
CSCA58H1 Mathematical Expressions and Reasoning for Computer Science

B-level courses
CSCB07H1 Software Design
CSCB09H1 Software Tools and Systems Programming
CSCB33H1 Introduction to the Theory of Computation
CSCB38H1 Computer Organization
CSCB38H1 Design and Analysis of Data Structures
MATB4H1 Linear Algebra II
MATB4H1 Techniques of the Calculus of Several Variables I
MATB4H1 Techniques of the Calculus of Several Variables II
STAB22H1 Introduction to Probability Theory
MGTB23H1 Managing People in Organizations
MGTB29H1 Managing Groups in Organizations

C-level courses
CSCC24H1 Principles of Programming Languages
CSCC40H1 Analysis and Design of Information Systems
CSCC43H1 Introduction to Databases
CSCC63H1 Computability and Computational Complexity
CSCC69H1 Operating Systems
CSCC72H1 Algorithm Design and Analysis

D-level courses
CSCD00H1 Social Impact of Information Technology
CSCD00H1 Software Engineering
CSCD00H1 Database System Technology

Elective courses, all levels
One of (additional courses in scientific computing):
CSCC46H1 Numerical Methods
CSCC58H1 Numerical Algebra and Optimization
Two of (additional courses related to the practice of computing):
CSCC09H1 Programming on the Web
CSCC35H1 Microprocessor Systems
CSCD18H1 Computer Graphics
CSCD38H1 Computer Networks
CSC321H Introduction to Neural Networks and Machine Learning
CSC377H Microprocessor Software
CSC384H Introduction to Artificial Intelligence
CSC465H1 Formal Methods in Software Design
CSC469H1 Operating Systems Design and Implementation
CSC485H1 Computational Linguistics
CSC488H1 Compilers and Interpreters
One of (additional courses related to business and computing):
MATB61H1 Linear Programming and Optimization
MATC38H1 Introduction to Mathematical Finance
MATC34H1 Analysis for Decision-Making
CSCA45H1 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
- CSCA40H1 Introduction to Computer Programming
- CSCA4H1 Introduction to Computer Science
- CSCA46H3 Introduction to Computing 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
- CSCB16H1 Introduction to the Theory of Computation
- CSCB56H1 Computer Organization
- CSCB63H1 Design and Analysis of Data Structures
- MATH24H1 Linear Algebra II
- MATH34H1 Techniques of the Calculus of Several Variables I
- MATH34H2 Techniques of the Calculus of Several Variables II
- STAB32H1 Introduction to Probability Theory

### C-level courses
- CSCC50H1 Numerical Analysis and Optimization
- CSCC52H1 Combinatorics and Computational Complexity
- CSCC73H1 Algorithm Design and Analysis

### D-level courses
- CSCD03H1 Social Impact of Information Technology
- CSCD08H1 Software Engineering

### Elective courses, all levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>One of (additional courses in scientific computing):</td>
<td></td>
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<tr>
<td>CSCC50H1 Numerical Methods</td>
<td></td>
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<tr>
<td>CSCC51H1 Numerical Algorithms and Optimization</td>
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<tr>
<td>Four of (additional courses in the practice of computing):</td>
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<tr>
<td>CSCC16H1 Programming on the Web</td>
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</tbody>
</table>

## 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
- CSCA40H1 Introduction to Computer Programming
- CSCA46H3 Introduction to Computing Science
- CSCA46H3 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
- CSCB16H1 Introduction to the Theory of Computation
- CSCB56H1 Computer Organization
- CSCB63H1 Design and Analysis of Data Structures
- MATH24H1 Linear Algebra II
- MATH34H1 Techniques of the Calculus of Several Variables I
- MATH34H2 Techniques of the Calculus of Several Variables II
- MATH44H1 Introduction to Analysis
- MATH44H1 Ordinary Differential Equations
- STAB32H1 Introduction to Probability Theory

### C-level courses
- CSCC50H1 Numerical Analysis and Optimization
- CSCC52H1 Combinatorics and Computational Complexity
- CSCC73H1 Algorithm Design and Analysis
- MATC01H1 Groups and Symmetry
- MATC04H1 Complex Variables

### Elective courses, all levels

One of (additional courses in computing systems):
- CSCC50H1 Numerical Analysis and Optimization
- CSCC52H1 Combinatorics and Computational Complexity
- CSCC73H1 Algorithm Design and Analysis
- MATC01H1 Groups and Symmetry
- MATC04H1 Complex Variables

Four of (mathematics courses with applications in theory of computing):
- MATC02H1 Fields and Groups
- MATC09H1 Introduction to Mathematical Logic
- MATC15H1 Introduction to Number Theory
- MATC16H1 Coding Theory and Cryptography
- MATC12H1 Graph Theory and Algorithms for its Applications
- MATC44H1 Introduction to Combinatorics

Three of (additional courses in analysis — numerical, real and complex):
- CSCC15H1 Numerical Approximation, Integration and Ordinary Differential Equations
- MATC35H1 Chaos, Fractals and Dynamics
- MATC37H1 Introduction to Real Analysis
- MATC46H1 Differential Equations II
- MATC50H1 Complex Analysis II

One of (courses in the relationship of science and society):
- PSCD02H1 Current Questions in Mathematics and Science
- CSCD03H1 Social Impact of Information Technology
A-level courses
CSCA40H1 Introduction to Computer Programming
CSCA44H1 Introduction to Computer Science
CSCA65H1 Mathematical Expression and Reasoning for Computer Science
MAT2A0H Linear Algebra I
MAT2A0H Calculus I
MAT2A1H Calculus II for Mathematical Sciences
PHYA10H1 Introduction to Physics I
PHYA11H1 Introduction to Physics II

B-level courses
CSCB00H1 Software Design
CSCB09H1 Software Tools and Systems Programming
CSCB58H1 Introduction to the Theory of Computation
CSCB58H1 Computer Organization
CSCB63H1 Design and Analysis of Data Structures
MATH2A4H Linear Algebra II
MATH2B4H Techniques of the Calculus of Several Variables I
MATH2B4H Techniques of the Calculus of Several Variables II
MATH2B4H Ordinary Differential Equations
STAT252H Introduction to Probability Theory
PHYB20H1 Vibrations and Waves
PHYB21H1 Electricity and Magnetism
PHYB10H1 Intermediate Physics Laboratory I
PHYB20H4 Introduction to Quantum Physics
PHIL2001 Philosophy of Science
[PHYB11H1 Intermediate Physics Laboratory I or
PSCB01H1 The Instrumentation of Science]

C-level courses
CSCC59H1 Numerical Algebra and Optimization
CSCC51H4 Numerical Approximation, Integration and Ordinary Differential Equations
CSCC63H1 Computability and Computational Complexity
CSCC73H1 Algorithm Design and Analysis
CSCC89H1 Microprocessor Systems

Elective courses, all levels
One of (additional courses in computer systems):
CSCC24H1 Principles of Programming Languages
CSCC43H1 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):
PSCD302H Current Questions in Mathematics and Science
CSCD301H Social Impact of Information Technology
SPECIALIST (CO-OPERATIVE) PROGRAM IN COMPUTER SCIENCE

Supervisor of Studies: R. Pancer (416-287-7679) Email: pancer@utsc.utoronto.ca
Co-op Contact: R. Louden (416-287-7254) Email: askcoop@utsc.utoronto.ca

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

Program 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 Am & 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 (CO-OPERATIVE) PROGRAM IN COMPUTER SCIENCE

Supervisor of Studies: R. Pancer (416-287-7679) Email: pancer@utsc.utoronto.ca
Co-op Contact: R. Louden (416-287-7254) Email: askcoop@utsc.utoronto.ca

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

MAJOR PROGRAM IN COMPUTER SCIENCE

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

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

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:
- ANTA41H, ANTA42H
- CMA202H, ENG311H, ENG312H, ENG387H

A-level courses:
- CSAC18H Introduction to Computer Programming
- CSAC24H Introduction to Computer Science
- CSAC640H Mathematical Expression and Reasoning for Computer Science
- MAT22H Linear Algebra I
- MAT30H Calculus I
- MAT37H Calculus II for Mathematical Sciences

B-level courses:
- CSBC07H Software Design
- CSBC08H Introduction to the Theory of Computation
- CSBC08H Computer Organization
- CSBC31H Design and Analysis of Data Structures
- MATB24H Linear Algebra II
- STA37H Introduction to Probability Theory

Elective courses, all levels:
One of (additional courses in the practice of computing):
- CSCE299H Programming on the Web
- CSCE244H Principles of Programming Languages
- CSCE408H Analysis and Design of Information Systems
- CSCE418H Introduction to Databases
- CSCE699H Operating Systems
- CSCE538H Microprocessor Systems
- CSCE418H Computer Graphics
- CSCE440H The Business of Software

One of (additional courses in scientific computing):
- CSCE448H Numerical Methods
- CSCE503H Numerical Algebra and Optimization
- One of (additional courses in the theory of computing):
- CSCE638H Computational and Computational Complexity
- CSCE538H Algorithm Design and Analysis
- CSCE448H Formal Languages and Automata
- CSCE463H Formal Methods in Software Design

One of (additional courses in mathematics):
- MATB41H Techniques of the Calculus of Several Variables I
- MATB010H Linear Programming and Optimization
- MATC099H Introduction to Mathematical Logic
- MATC329H Graph Theory and Algorithms for its Applications
- MATC101H Coding Theory and Cryptography
- MATC448H Introduction to Combinatorics

SPECIALIST PROGRAM IN MANAGEMENT AND INFORMATION TECHNOLOGY (See the Management section of this Calendar.)
CSC234H3 The Why 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: CSC148H. This course may not be taken after or concurrently with any other CSC course.

CSCA94H3 Introduction to Computer Programming

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. This course may not be taken after or concurrently with CSCA94H3, but may be taken after CSCA92H3.

CSCA93H3 Introduction to Computer Science

Prerequisite: CSCA85H or (CSCA90H3) plus two CSC mathematics courses or [Grade 12 Geometry and Discrete Mathematics & one other Grade 12 mathematics course]
Note: This course assumes programming experience in an object-oriented language such as C++ or Java, as provided by

CSC385H3 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. Exclusions: CSC393H3, CSC260H3, CSC240H3
Prerequisite: [CSCA48H or CSCA58H3] or [CSCA58H1] plus [COPA 2.5 or enrolment in a CSC subject POS]

CSC384H5 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: CSC259H3
Prerequisite: [CSCA48H or CSCA58H3] or [CSCA48H1] & [COPA 2.5 or enrolment in a CSC subject POS]

CSC383H5 Design and Analysis of Data Structures

Prerequisite: [CSCB70H or CSCB50H] & [COPA 2.5 or enrolment in a CSC subject POS]

CSC290H3 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: CSC290H1
Prerequisite: [CSCB70H or CSCB50H] & [COPA 2.5 or enrolment in a CSC subject POS]

CSC393H3 Programming on the Web

Prerequisite: CSC390H3 & (CSCB31H3 or CSCB29H1) & [COPA 3.0 or enrolment in a CSC subject POS]

CSC249H3 Principles of Programming Languages

Major topics in the development of modern programming languages. Syntax specification, type systems, type inference, exception handling, information hiding, structural recursion, non-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, CLP or Corel). Exclusion: CSC247H3
Prerequisite: [CSCB70H or CSCB50H] & [CSCB50H3 or CSCB38H1] & [COPA 3.0 or enrolment in a CSC subject POS]

CSC363H3 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: CSC350H3, CSC351H, CSC356H, CSC358H, CSC359H, CSC355H
Prerequisite: [PSYC57H3 or (CSCA57H3) or CSCB70H1 or [MAT257Y] or [MAT237Y] or [COPA 3.0 or enrolment in a CSC subject POS]

CSC349H3 Analysis and Design of Information Systems

Theory, tools and techniques of information systems analysis and design. Topics include: theory of systems and organizations, structured analysis and design, user interface design. Exclusion: CSC341H3
Prerequisite: [CSCB36H3 or CSCB37H3] & [COPA 3.0 or enrolment in a CSC subject POS]
CSCE443H Introduction to Databases
Prerequisite: CSCE263H or (CSCE278H) & (CPSC 3.0 or enrollment in a CS subject POS)

CSCE508H Numerical Algebra and Optimization
Prerequisite: [PCSC267H or (CPSC257H) or CPSC307H or (CSCE378H)] & (MATH120H & MATH121H) & (CPSC 3.0 or enrollment in a CS subject POS)

CSCE511H Numerical Approximation, Integration and Ordinary Differential Equations
Prerequisite: CSCE268H & (CPSC 3.0 or enrollment in a CS subject POS)

CSCE633H Computability and Computational Complexity
Prerequisite: [CSCE363H or (CSCE283H)] [CPSC 3.0 or enrollment in a CS subject POS]

CSCE693H 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, deadlock. Additional topics include memory management, file systems, process scheduling, threads, and protection. Exclusion: CSCE564H, CSCE663H
Prerequisite: [CSCE307H or (CPSC257H)] & CSCE691H & CSCE698H & (CPSC 3.0 or enrollment in a CS subject POS)

CSCE721H Algorithm Design and Analysis
Prerequisite: [CSCE363H or (CSCE278H)] & (CPSC 3.0 or enrollment in a CS subject POS)

CSCE891H Microprocessor Systems
A study of hardware and software aspects of microcomputers and microprocessors. This course will examine instruction sets, addressing modes, memory devices, bus structures, input/output and interrupt mechanisms. Assembly language and high-level language programming. System and applications software. Laboratory experiments will provide hands-on experience. Limited enrolment: 100
Exclusion: ECSE358H
Prerequisite: CSCE859H & (CPSC 3.0 or enrollment in a CS subject POS)

CSCE934H System and Network Management
Prerequisite: [CSCE434H or (CSCE344H) & CSCE694H] & (CSCE378H or CSCE464H) & (CPSC 3.0 or enrollment in a CS subject POS)

CSCE935H Computer Networks
Computer communication networks principles and practice. The OSI protocol-layer model; Internet applications 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. Principles in the context of the working-code model implemented in the Internet. Exclusion: CSCE358H
Prerequisite: [CSCE363H or (CSCE364H) or (CSCE378H)] & (CPSC252H & (MATH121H) & (CPSC 3.0 or enrollment in a CS subject POS)

CSCE940H 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 UTSI 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: CSCE444H
Prerequisite: [Three C-level computer science half-courses] & (permission of the Supervisor of Studies) & (CPSC 3.0 or enrollment in a CS subject POS)

Enrollment procedures: Project supervisor's note of agreement must be presented to the Supervisor of Studies, who must issue permission for registration.
Diaspora and Transnational Studies

Faculty List

M. Lambert, B.A. (McGill), M.A., Ph.D. (Michigan), F.R.S.C., Professor
M.B. Goldblatt, M.A., (Victoria), Ph.D. (Toronto), Associate Professor
N. ten Hompel, M.A., Ph.D. (Toronto), Associate Professor
E.A. Hamet, M.B., Ph.D. (London, U.K.), Assistant Professor
K. MacDonald, B.A., M.A., Ph.D. (Waterloo), Assistant Professor

Supervisor of Studies: K. MacDonald (416-287-7294) Email: kmacd@unc.taronto.ca

Where is home? Need it be in one place? Is it always attached to territory? Diaspora and transnational studies examine 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 movements. 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 DIAPO RSA AND TRANSNATIONAL STUDIES

Program Requirements

Students must complete 7.0 full credits (FCEs) as follows:

1. DTS800H Introduction to Diaspora and Transnational Studies I

2. 5.0 FCEs from Group A and Group B courses (below) with at least 2.0 FCEs each from group.

3. Two 3-hour capstone seminars (1.0 FCE). (These courses are under development. Their specific course codes and titles will be announced as soon as they are available.)

4. At least one other course must be at the C-level or above.

Group A [Humanities] courses

ENGB17H Contemporary Literature from the Caribbean
ENGC13H Ethnic Traditions in American Literature
ENGC70H The Immigrant Experience to 1980
ENGC71H The Immigrant Experience in Literature since 1980
ENGD7TH Between Traditions and Freedoms: Writing by Canadians of Asian Descent
FREB26H The Francophone World
FREB35H Francophone Literature
FREB37H Cinema of the Francophone World

Diaspora and Transnational Studies

FREC47H Special Topics in Linguistics: Pidgin and Creole Languages
HISC14H Edible History: History of Global Foodways
HISC34H People in Motion: Immigrants and Migrants in U.S. History
HISC45H Immigrants and Race Relations in Canadian History
HISD31H Thinking of Diversity: Perspectives on American Pluralisms
HISD35H The Politics of American Immigration, 1865 present
VPA40H Dialogues in the Diaspora
VPHB50H Africa through the Photographic Lens
VPHC52H Issues in Contemporary Global Arts
VPMB99H Popular Music in a Cross-Cultural Context

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

Group B (Social Sciences) courses

ANTB60H The Chinese Diaspora
ANTC34H The Anthropology of Transnationalism
GERC70H Spaces of Multi-Racials: Critical Mixed Race Theory
GGERC45H Local Geographies of Globalization
POLA41H Leaving Home: Politics and Emigration
SOGC25H Comparative Ethnic and Race Relations
SOGC54H Globalization: Causes, Consequences and Critique

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

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

Arts & Science Courses

Anthropology
ANTH14Y Anthropology of the Metropolis: Global Cities
ANTH40H Orientalism: Western Views of the Other
ANTH44H Society in Transition

English
ENGL25Y Twentieth-Century North American Literature
ENGL277Y Introduction to African Canadian Literature
ENGL279Y Chinese North American Literature in English

Fine Arts
FAST40M Fine Arts 40M

Geography
GGRA35H Canada in a Global Context
GGRA36H Critical Geographies: An Introduction to Radical Ideas on Space, Society and Culture
GGRA45H Space, Power, Geography: Understanding Spatiality

German
GERA38H Soviet and Jewish: Jewish Culture in the Soviet Union
GERA36H German 36H Introduction to the Study of Yiddish Cinema
History
HIS206H Medieval History of the Jewish People
HIS208Y Modern History of the Jewish People
HIS209Y Caribbean History and Culture
HIS296Y Black Freedom
HIS303Y The Mediterranean, 600s-700s: Crusade,Colonialism, Diaspora
HIS305H Popular Culture and Politics in the Modern Caribbean
HIS320Y Chinese Migration
HIS325H Women and Gender in Modern Jewish History
HIS356H Zionism and Israel
HIS359H Regional Politics and Radical Movements in the 20th Century Caribbean
HIS360H African-Canadian History, 1664-Present
HIS366Y Black Canadian Women’s History
HIS370H The Black Experience in the United States Since the Civil War
HIS374H South Asian Migration and Settlement
HIS417H Globalization, Science, and Technology
HIS466Y Gender and Slavery in the Atlantic World
HIS468Y Black Slavery in Latin America
HIS478H Voices From Black America
HIS480H Modernity and its Others: History and Postcolonial Critique
HIS487H Travelers and Scholars East/West
HIS498X 3rd year course on the Irish Diaspora

Janis College
INE127X Race and Representation

Italian Studies
ITA233Y Ethnicity and Mainstream Italian Canadian Culture
ITA333H Italian Canadian Literature I: Life in a New World
ITA493H Italian Canadian Literature II: Identity and Voice

Near and Middle Eastern Civilizations
NMC274H The Steppe Frontier in Islamic History (formerly NMC274Y)
NMC357Y Mann Media and the Middle East
NMC370Y Ancient Israel
NMC475H Orientalism and Occidentalism

New College - African Studies
NEW159Y Introduction to African Studies
NEW269Y Black Freedom

New College - Caribbean Studies
NEW223Y Caribbean Literature and Society
NEW224Y Caribbean Thought I
NEW324Y Caribbean Thought II
NEW325H Caribbean Women Thinkers
NEW326Y Indenture, Survival, Change

New College - Equity Studies
NEW343H The Romani Diaspora in Canada

Political Science
POL349Y Globalization and Urban Politics
POL358Y Post-Colonial Questions: Politics, Knowledge, Power
POL403H Colonialism/Post-Colonialism: The Colonial State and its Forms of Power

Religion
BLG341H Dreaming of Zion: Exile and Return in Jewish Thought
Depending on the topic, the following course may also count:
BLG430H Advanced Topics in Judaism

St. Michael’s College
SMC413H The Irish in Canada
SMC414H 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
SOC218Y Asian Communities in Canada
SOC314Y The Jewish Community in Europe and North America
SOC344Y Contemporary International Migration
SOC383H The Sociology of Women and International Migration

Spanish and Portuguese
SPA480H Theories of Culture in Latin America
SPA490H Contemporary Caribbean Literatures and Identities

Victoria College
VAC359Y Creative Writing: A Multicultural Approach

Women’s and Gender Studies
WGS168H Gender and Cultural Difference: Transnational Perspectives
WGS169Y Studies in Post-Colonialism
WGS469H Gender and the Sacred: African Cosmologies in the Wake of the Middle Passage

UTM Courses

Anthropology
ANT161H African Cultures

English
ENG272H Literature and Exile

French
FRE209Y Aspects of Francophone Cultures
FRE390H Women of the Francophone World
FRE395H Films of the Francophone World

History
HIS260H Diasporic Canada
HIS366H Diasporic Histories & Cultures

Political Science
POL362H Colonialism/Post Colonialism: Decolonizing Political Science
POL363H The Colonial State and its Forms of Power
Economics for Management Studies
(B.B.A./B.A.)

Faculty List
D. flytt, B.A., M.A., Ph.D. (toronto), professor
M. krawinsky, S.B. (MIT), M. phil., Ph.D. (Yale), professor
M. campobello, B.sc., M.A., Ph.D. (toronto), associate professor
W. hejazi, B.A. (western ontario), M.A., Ph.D. (toronto), associate professor
T. c. parker, B.A. (Manitoba), M.A. (Toronto), Ph.d. (Yale), associate professor
G. frazier, B.Math (Waterloo), B.Ed. (Western), M.A. (toronto), M.phil., Ph.D. (Yale), assistant professor
H. krahn, B.A. (Queen’s), M.A., Ph.D. (princeton), assistant professor
H. Tian, B.sc. (Xinjiang), M.Sc., Ph.D. (McGill), assistant professor
G. Cleveland, B.A. (Dalhousie), M.A., Ph.D. (Toronto), senior lecturer
L. 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. Sullivan, B.sc., M.A., M.B.A. (Toronto), Ph.d. (McMaster), lecturer

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

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. DTSS01H Introduction to Diaspora and Transnational Studies
   DTSS02H Introduction to Diaspora and Transnational Studies
   2. 3.0 FCEs from Group A and Group B courses (see the Major Program above) with at least 1.0 FCE from each group.
   3. At least 1.0 FCE must be at the C-level or above.

DTSS01H Introduction to Diaspora and Transnational Studies
An interdisciplinary introduction to the study of diaspora, with particular attention to questions of history, globalization, cultural production, and the creative imagination. Material will be drawn from Toronto as well as from diasporic communities in other times and places. Exclusion: DTSS02H

DTSS02H Introduction to Diaspora and Transnational Studies
A continuation of DTSS01H. An interdisciplinary introduction to the study of diaspora, with particular attention to questions of history, globalization, cultural production, and the creative imagination. Material will be drawn from Toronto as well as from diasporic communities in other times and places. Exclusion: DTSS01H

Prerequisite: DTSS01H

Drama
See the Visual and Performing Arts section of this Calendar.
4. Major in Economics for Management Studies - program of six FCEs of Economics for Management Studies, one half FCE in Mathematics and one in Humanities. This program is used to satisfy the requirements of the B.A. degree. Described in detail below.

5. Minor in Economics for Management Studies - program of four FCEs of Economics for Management Studies, used to satisfy the B.A. degree. 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 FCEs 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 term.

8. Specialist (Co-operative) or Major in International Development Studies or Major (Co-operative/Double Major) in Health Studies within which students may choose to include a significant component from Economics for Management Studies. Described in detail elsewhere in this Calendar.

Admission to Programs in Economics for Management Studies and in Management

1. All students, both those who have been directly admitted into the Department from high school (and who are guaranteed admission into programs in the Department) and those admitted into pre-program (therefore not guaranteed admission into programs in the Department) must formally apply to specific programs after four 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 FCEs or less when they seek admission to programs in the Department of Management. Note that enrollment in ECOMB02H, ECOMB06H, EMB1B1H, EMB1B2H, EMB1C02H, EMB1C06H, EMB1C11H, EMB1C12H, EMB1C13H, EMB1C14H, EMB1C50H and two additional FCEs in Economics for Management Studies including at least one at the C-level.

2. CSCA01H and MAT127H.


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

Students should be aware that the mathematics requirement implies that Grade 12 or OAC Calculus is a prerequisite for entry to this Program. Further, students who are considering graduate work in Economics should be aware that they should accumulate considerably more mathematics than the minimum required; they should consult the Supervisor of Studies in Economics for details.

Work Terms

This program requires three work terms, the first one of which may be combined with course work. While some students will work at regular co-op placements arranged through the B.B.A. co-op office, a select group of students in this program may obtain placements working with faculty in the Department of Management during the 2nd year of courses. There will be two further work terms, outside the University, on a full-time basis. These will normally be scheduled during the summer. These will generally be placements with professional economists working for financial institutions, government organizations, or elsewhere. Students must maintain a 2.5 GPA in order to go out on these work terms. Students must complete the Introduction to Management Co-op Tutorial before undertaking a work term.

Recommended Schedule of Courses

Students in, or intending to enter, the Specialist Co-op Program are advised to take the following courses in their first calendar year:

- First Year: ECOMA94H, ECOMA95H, MGTA05H, MGTA08H, MGTA10H, MGTA09H, MGTA23H, CSCA02H.
- First Summer: ECOMB02H, ECOMB06H, [ECMB11H & ECMB12H or ECMC99Y].

SPECIALIST (CO-OPERATIVE) PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (B.B.A.)

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

The Specialist Co-operative program in Economics for Management Studies (B.B.A.) is a work-study program which combines academic studies in economics and management with work experience in public and private enterprises. This degree is designed to allow students to learn practical skills of data analysis and to combine them with the interpretive skills given by knowledge of economic theory. For information on admission, fees, work placements, and standing in the Program, please see the Co-operative Programs section of this Calendar, and the admission discussion below.

Program Requirements

The Specialist Co-operative Program in Economics for Management Studies requires the completion of the following minimum requirements as part of a twenty-credit degree (B.B.A.), i.e.,

1. 8.5 FCEs (full credit equivalents) in Economics for Management Studies, including
   - ECOMA94H, ECOMA95H, ECOMB02H, ECOMB04H, ECOMB13H & ECOMB15H or ECOMB99Y,
   - ECOMB02H, ECOMC06H, ECOMC11H, ECOMC12H, ECOMC13H, ECOMC14H, ECOMC50H
   - and two additional FCEs in Economics for Management Studies including at least one at the C-level.

2. CSCA01H and MAT127H.


4. At least 1.0 FCEs from courses within the Department of Humanities.
Economics for Management Studies

SPECIALIST PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (B.B.A.)
Supervisor of Studies: J. Parkinson. E-mail: economics-supervisor-studies@utsc.utoronto.ca

This program will provide a specialization for those wishing a substantial component of Economics at a management degree (B.B.A.) and/or seeking to prepare themselves for studies at the Masters' level.

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 on their performance in ECMA04H, ECMAM08H, and MATA27H (or equivalents).

Program Requirements
1. 8.5 full-credit equivalents in Economics for Management Studies including: ECMAM04H, ECMAM08H, ECOMB21H, ECOMD01H, [ECMB111H & ECMB212H] or [ECMB282H, ECOMC21H, ECOMC212H, ECOMC233H, ECOMC141H, ECOMD301H and two additional FCEs in Economics for Management Studies including at least one at the C-level.]

2. CSCA20H and MATA27H

3. MGTAM04H, MGTAM04H, MGTB201H, MGTB203H, MGTB204H, MGTB205H, MGTB206H, MGTB207H, MGTB208H, MGTB209H, MGTB210H, and 1.5 FCE from the strategic management options as described in the B.B.A. Program in the Management section of this Calendar.

4. At least 1.0 FCE from courses within the Department of Humanities
Students should be aware that the mathematics requirement implies that Grade 12 or OAC Calculus is a prerequisite for entry to this Program. Further, students who are considering graduate work in Economics should be aware that they should accumulate considerably more mathematics than the minimum required; they should consult the Supervisor of Studies in Economics for details.

SPECIALIST PROGRAM IN POLITICAL SCIENCE AND ECONOMICS FOR MANAGEMENT STUDIES (B.A.)
Supervisor of Studies: 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 1 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 FCEs in disciplines other than Political Science & Economics for Management Studies.

Required Courses in Economics for Management Studies
Six FCEs, made up of the following: [ECMA04H & ECMAM08H] or [ECMA01H & ECMA05H]
ECMB101H or ECOMD21H
ECMB204H or ECMC301H
ECMB205H or ECMC302H
ECMB359H or ECMC303H or ECMC304H or ECMC305H
ECMB376H or ECMC363H
Two more FCEs in ECM, including at least one at the C-level.

Program Requirements
Six full-credit equivalents in Economics for Management Studies, including the following: [POLB300H & POLB310H] and
[POLB302H & POLB312H]

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


Note: The six full-credit equivalents in Political Science must include at least one full credit at the C- or D-level and no more than one full credit at the A-level.

MAJOR PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (B.A.)
Supervisor of Studies: J. Parkinson. E-mail: economics-supervisor-studies@utsc.utoronto.ca

This Program is designed to give a coordinated exposure to the subject matter of Economics for Management Studies to students pursuing the three-year degree or to those pursuing the four-year degree with more than a single area of concentration.

Program Admission
Note: Registration in this Program is limited.

Students must have completed a minimum of four credits to be considered for this program. Students with 4-6 course credits will be considered on the basis of cumulative GPA including ECMAM04H, ECMAM08H & MATA27H. Students with 7-10 course credits will be considered on the basis of cumulative GPA including ECMAM04H, ECMAM08H & MATA27H and one of ECMB212H and ECMB041H. Students should be aware that the MAT requirement implies that Grade 12 or OAC Calculus is a requirement for entry into this program.

Program Requirements
The Program consists of six full-credit equivalents in Economics for Management Studies, one half-credit equivalent in Mathematics, and one full-credit equivalent in Humanities. The Economics courses must include: ECMAM04H & ECMAM08H or [ECMA01H & ECMA05H]
ECMB101H or ECOMD21H
ECMB204H or ECMC301H
ECMB359H or ECMC303H or ECMC304H or ECMC305H
ECMB376H or ECMC363H
ECMAC11H
and 1.5 FCEs chosen from the courses in Economics for Management Studies including at least one at the C-level. Students must also complete MATA27H (or equivalent) and one FCE in Humanities.

Students who take ECMAM04H and ECMAM08H and then decide to apply for this program will be permitted to substitute [ECMA01H & ECMAM08H] for [ECMA04H & ECMAM08H]. However, these students will be required to complete MATA27H before registering for ECMB212H and ECMB041H.

MINOR PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (B.A.)
Supervisor of Studies: J. Parkinson. E-mail: economics-supervisor-studies@utsc.utoronto.ca

This program is designed to give exposure to the subject matter in some areas of Economics to students. These students will have to combine this minor with other minors or majors in order to graduate. Students need not have completed Grade 12 or OAC Calculus in order to enter this program.
Program Admission
Note: Registration in this program is not limited and does not require training in calculus. Students will note that some of the B and C level courses in Economics for Management Studies do require calculus. Therefore, students signed up for the Minor Program must choose their courses carefully, ensuring that they have the necessary prerequisites.

Program Requirements
The program consists of four FCEs in Economics for Management Studies as follows:

- **ECM2011H** & **ECA205H**
- **ECBM201H**
- **ECEM205H**

Two more FCEs in Economics for Management Studies, including at least one at the C-level. Students are warned that they are not guaranteed admission to B-level and C-level courses. Thus some courses may be unavailable, or available only during the summer session.

**ECMA091H3 Introduction to Microeconomics**
Economic theory of the firm and the consumer. Although calculus is not used in this course, algebra and graphs are used extensively to illuminate economic analysis. Exclusions: **ECON201Y**, **ECON204Y**, **ECMA046H**, **ECMA208H**, **ECO100Y**

**ECMA094H3 Introduction to Microeconomics: A Mathematical Approach**
Study of the determinants of output, employment, prices, interest rates and exchange rates. Calculus, algebra and graphs are used extensively. The course is oriented towards students interested in the Specialist Program in Management, the Specialist Program in Economics for Management Studies, and the Major Program in Economics for Management Studies. Exclusions: **ECMA011H**, **ECMA202Y**, **ECMA208Y**, **ECMA509Y**, **ECO100Y** Prerequisite: Grade 12 or GAC Calculus Corequisite: **MATA27H** must be completed before students will be admitted to courses requiring this course as a prerequisite.

**ECMB202H3 Price Theory: A Mathematical Approach**
Intermediate level development of the principles of microeconomic theory. The course will cover the same topics as **ECMB101H**, 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. Exclusions: **ECMB202H**, **ECO202Y**, **ECO206Y** Prerequisite: **ECMA204H & ECMA206H** or **ECMA307Y** or **ECMA401H & ECMA408H** or **ECMA503Y**

**ECMB203H3 Macroeconomics: A Mathematical Approach**
Intermediate level development of the principles of macroeconomic theory. The course will cover the same topics as **ECMB105H**, 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. Exclusions: **ECMB205H**, **ECO202Y**, **ECO206Y**, **ECO309Y** Prerequisite: **ECMA204H & ECMA206H** or **ECMA402Y** or **ECMA502Y** or **ECMA503Y** and **MATA27H** may be admitted with the permission of the Supervisor of Studies.

**ECMB204H3 Macroeconomics and Policy: A Mathematical Approach**
Intermediate level development of the principles of macroeconomic theory. The course will cover the same topics as **ECMB105H**, 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. Exclusions: **ECMB205H**, **ECO202Y**, **ECO206Y**, **ECO309Y** Prerequisite: **ECMA204H & ECMA206H** or **ECMA402Y** or **ECMA502Y** or **ECMA503Y** and **MATA27H** may be admitted with the permission of the Supervisor of Studies.

**ECMB205H3 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. Exclusions: **ECMB201H**, **ECMB202H**, **ANTC335H**, **ECO202Y**, **ECO227Y**, **PSYB07H**, **SOCI200H**, **STAT222H**, **STAT32H**, **STAT474H**, **STAT522H**, **STAT579H**, **STAC679H** Prerequisite: **ECMA301H & ECMA601H** or **ECMA502Y** and **MATA27H** may be admitted with the permission of the Supervisor of Studies.

**ECMB206H3 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. Exclusions: **ECMB200Y**, **ANTC335H**, **ECO202Y**, **ECO227Y**, **PSYB07H**, **SOCI200H**, **STAT222H**, **STAT32H**, **STAT474H**, **STAT522H**, **STAT579H** Prerequisite: **ECMA301H & ECMA601H** or **ECMA502Y** and **MATA27H** may be admitted with the permission of the Supervisor of Studies.

**ECMB207H3 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. Exclusions: **ECMB200Y**, **ANTC335H**, **ECO202Y**, **ECO227Y**, **PSYB07H**, **SOCI200H**, **STAT222H**, **STAT32H**, **STAT474H**, **STAT522H**, **STAT579H** Prerequisite: **ECMB211H** or **STAT474H** or **STAT522H & STAT579H**, **MATA27H**
ECMC535H1 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
Prerequisite: [ECAA06H1 & ECMC06H1] or [ECMA05Y1] or [ECMA05H1] or [ECMA05Y5]

ECMC369H3 Economic Aspects of Public Policy
Cost-Benefit Analysis (CBA) is a key policy-evaluation tool developed by economists to assess government policy alternatives and provide advice to governments. In this course, we learn the key assumptions behind and techniques used by CBA and how to apply these methods in practice.
Limited enrolment: 60
Prerequisite: [ECMA06H1 & ECMC06H1] or [ECMA05Y1] or [ECMA05H1] or [ECMA05Y5]
Corequisite: ECMB01H1 or ECMB02H1

ECMC568H3 Comparative Economic Systems
A research-oriented course focused on the application of general systems theory to comparative analyses of alternative economic systems: capitalist, socialist and others. Half of the course will focus on general theoretical systems models, the other half will empirically study Russia, China and other systems.
Prerequisite: [ECMA46H1 & ECMC06H1] or [ECMA05Y1] or [ECMA05H1] or [ECMA05Y5]
Corequisite: ECMB01H1 or ECMB02H1

ECMC029H3 Topics in Price Theory
Continuing development of the principles of microeconomics theory. This course will build on the theory developed in ECMC028H3. Topics will be chosen from a list which includes: monopoly, price discrimination, product differentiation, oligopoly, game theory, general equilibrium analysis, externalities and public goods. Enrollment is limited to students registered in programs requiring this course.
Limited enrolment: 80 per section
Exclusion: ECO206Y, ECO207Y
Prerequisite: ECMB02H1 & MATA27H

ECMC060H3 Topics in Macroeconomic Theory
Continuing development of the principles of macroeconomic theory. The course will build on the theory developed in ECMC068H. Topics will be chosen from a list including consumption theory, investment, exchange rates, rational expectations, inflation, neo-Keynesian economics, monetary and fiscal policy. Enrollment is limited to students registered in programs requiring this course.
Limited enrolment: 80 per section
Exclusion: ECO202Y, ECO208Y, ECO209Y
Prerequisite: ECMB06H1 & MATA27H

ECMC101H3 Introduction to Regression Analysis
This course will develop the knowledge and skills necessary to obtain and analyze economic data, providing an introduction to the use and interpretation of regression analysis. Students will learn how to estimate regressions, undertake hypothesis tests, and critically assess statistical results. Students will be required to write a major analytical report. Enrollment is limited to students registered in programs requiring this course.
Limited enrolment: 60
Exclusions: ECMC113H1, ECMC111H may not be taken after or concurrently with STA240H1 or ECO217Y.
Prerequisite: [ECMB11H1 & ECMC12H1] or ECO219Y

ECMC129H3 Theory and Practice of Regression Analysis
This is an advanced course building on ECMC11H. Students will master regression theory, hypothesis and diagnostic tests, and assessment of econometric results. Treatment of special statistical problems will be discussed. Intensive computer-based assignments will provide experience in estimating and interpreting regressions, preparing students for ECMC50H1. Enrollment is limited to students registered in programs requiring this course.
Limited enrolment: 30
Exclusion: ECO217Y
Prerequisite: ECMB11H, ECMC12H, ECMC11H, ECMB02H1 & ECMC06H7

ECMC131H3 Advanced Microeconomic Theory
An upper level extension of the ideas studied in ECMC02H. The course offers a more sophisticated treatment of such topics as equilibrium, welfare economics, risk and uncertainty, strategic and repeated interactions, agency problems, and screening and signaling problems. Enrollment is limited to students registered in programs requiring this course.
Exclusion: ECO206H1
Prerequisite: [ECMB09Y1 or ECMC12H1] & ECMC02H1

ECMC141H3 Advanced Macroeconomic Theory
This course will review recent developments in macroeconomics, including new classical and new Keynesian theories of inflation, unemployment and business cycles. Enrollment is limited to students registered in programs requiring this course.
Exclusion: ECO217Y
Prerequisite: [ECMB09Y1 or ECMC12H1] & ECMC06H8

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 face 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
Prerequisite: ECMB01H1 or ECMB02H1

ECMC227H3 Classics in the History of Economic Thought
A study of the literature of economics, both past and current. Students will read economists important in the development of current economic thought, including Smith, Marx, and Keynes, and will also read the ideas of some important current economic thinkers. Emphasis is on primary sources rather than secondary commentaries.
Limited enrolment: 60 per section
Prerequisite: ECMB01H1 or ECMB02H1 & ECMB05H1 or ECMB06H1

ECMC311H3 Economics of the Public Sector: Taxation
A course concerned with the revenue side of government finance. In particular, the course deals with existing tax structures, in Canada and elsewhere, and with criteria for tax design.
Limited enrolment: 60
Exclusion: ECO339Y
Prerequisite: ECMB01H1 or ECMB02H1

ECMC323H3 Economics of the Public Sector: Expenditures
A study of resource allocation in relation to the public sector, with emphasis on decision criteria for public expenditures. The distinction between public and private goods is central to the course.
Limited enrolment: 60
Exclusion: ECO339Y
Prerequisite: ECMB01H1 or ECMB02H1

ECMC341H3 Economics of Health Care
A study of the economic principles underlying health care and health insurance. This course is a survey of some of the major topics in health economics. Some of the topics that will be covered will include the economic determinants of health, the market for medical care, the market for health insurance, and health and safety regulation.
Limited enrolment: 60
Exclusion: ECO359Y
Prerequisite: ECMB02H1 & MATA27H
ECM249H3 The Economics of the Internet and E-Commerce
The internet is rapidly 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: 60
Prerequisite: EConB201H or EConB202H

ECM254H3 Money and Banking
There will be a focus on basic economic theory underlying financial intermediation and its importance to growth in the overall economy. The interaction between domestic and global financial markets, the private sector, the government will be considered.
Limited enrolment: 60 per section
Prerequisite: EConB205H or EConB206H

ECM249H3 Financial Economics
This course introduces students to the theoretical underpinnings of financial economics. Topics covered include: inter-temporal 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: ECon310Y
Prerequisite: EConB101H or EConB102H

ECM251H3 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: ECon203Y, ECon339Y
Prerequisite: EConB202H

ECM252H3 Labour Economics II
A continuation of ECM251H. Topics covered will include: union wage structure; sex 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: ECon239Y, ECon339Y
Prerequisite: ECM251H & [EConB201H or EConB202H]

ECM254H3 Economics of the Family
This course studies the economic aspects of how families make decisions: about employment, child care, having children. In particular, we study how women's decisions are affected by children and the need to care for them. We study how public policies affect the decisions of family members, and discuss how family policy can be improved.
Limited enrolment: 60
Exclusion: EConB202H

ECM249H3 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: ECon239Y
Prerequisite: EConB205H or EConB206H

ECM252H3 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: ECon239Y
Prerequisite: EConB201H or EConB202H

ECM250H3 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
Prerequisite: ECM249H

ECM269H3 Economic Development
An introduction to the processes of growth and development in less developed countries and regions. Topics include economic growth, income distribution and inequality, poverty, health, education, population growth, rural and urban issues, and risk in a low-income environment.
Limited enrolment: 60
Exclusion: ECon324Y
Prerequisite: EConB101H or EConB102H

ECM278H3 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: ECon324Y
Prerequisite: EConB101H or EConB102H

ECM250H3 Topics in 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: ECon239Y
Prerequisite: EConB101H or EConB201H or EConB202H or EConB205H or EConB206H
ECMD110H1S Supervised Reading
These courses will normally be made available only to upper-level students whose interests are not covered by other courses and whose performance in Economics courses has been well above average. Not all faculty will be available for these courses in any single session.

Students must obtain consent from the Supervisor of Studies, supervising instructor and the Department of Management before registering for this course.

ECMD505H1S Workshop in Economic Research
This course introduces to students the techniques used by economists to define research problems and to do research. Students will choose a research problem and a faculty member with whom to work, write papers on their topic and present their ongoing work to the class.

English

(B.A.)

Faculty List
W.J. Howard, M.A., S.T.B. (Toronto), Ph.D. (Leeds), Professor Emeritus
R.M. Brown, M.A., Ph.D. (Binghamton), Professor
M.C. Cuddy-Keane, M.A., Ph.D. (Toronto), Professor
D. Bennett, M.A. (Connecticut), Associate Professor
M.B. Goldman, M.A. (Victoria), Ph.D. (Toronto), Associate Professor
S. Lamb, M.A., Ph.D. (Toronto), Associate Professor
G. Leonard, M.A., Ph.D. (Florida), Associate Professor
J.G. Parrott, M.A., Ph.D. (Birmingham), Associate Professor
N. ten Krueze, M.A., Ph.D. (Toronto), Associate Professor
C. Bolus-Rocher, M.A., Ph.D. (Edina), Assistant Professor
N. Dolan, M.A., Ph.D. (Harvard), Assistant Professor
A. DeRose, Ph.D. (Harvard), Assistant Professor
A. Murray, M.A., Ph.D. (Cornell), Assistant Professor
S.D. King, M.A. (Western), Ph.D. (Western), Lecturer

Discipline Representative: S. Lamb (416-287-7144)
Supervisor of Studies: Russell Brown (416-287-7166), Email: rbrown@chas.utoronto.ca

The discipline of English involves not only the study of the great works of literature but also training in responding to the complex modes of interpretation and communication that are invaluable in our increasingly media-saturated world. At UTSC, the curriculum offers courses in the English-language literatures of Britain, Canada, America, and other areas of the world. All courses place emphasis on close responsive reading, critical thinking, and clarity of expression.

A-level courses introduce students to the study of English at the university level. ENGA101 and ENGA111 are designed both for students wanting an introductory course in the Specialist, Major, or Minor Program in English and for students having a general interest in literature or the twentieth century.

ENG803H1, ENG804H, and ENG805H1 are required for all English Programs. B-level courses have no prerequisites and are available both to beginning and to more advanced students.

C-level courses, as their prerequisites indicate, are designed to build upon previous work and presuppose some background in critical skills and some familiarity with the subject matter.

D-level courses provide opportunities for more sophisticated study and require some independent work on the part of the student. These courses are generally restricted in enrolment 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.utsc.utoronto.ca/~rthurn/Eng/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: rbrown@chas.utoronto.ca

Program Requirements
10.5 credits in English are required. They should be selected as follows:

1. ENGR80H1 Critical Thinking About Narrative
2. ENGR84H Critical Thinking About Poetry
3. ENGR85H Critical Writing About Literature
4. 2.5 credits from courses whose content is pre-1900
5. 0.5 credits in Canadian literature
6. 6.0 additional credits in English

Among the 10.5 credits required for the Specialist, at least 3 full credits must be at the C-level and 1 full credit at the D-level

Note: Students may count no more than one of the following courses towards the Specialist requirements:
ENG853H1 Children's Literature
ENG858H1 Detective Fiction
ENG841H1 Science Fiction

Students may count no more than one full credit of advanced creative writing (ENG86Y, ENG867H1, ENG868H1) and no more than one full credit of D-level independent study (ENG89Y1, ENG98W1, ENG99R1) towards an English program.

The following courses do not count towards any English programs: ENG190H1, ENG185Y1.

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

Program Requirements
7.5 credits in English are required. They should be selected as follows:

1. ENGR80H1 Critical Thinking About Narrative
2. ENGR84H Critical Thinking About Poetry
3. ENGR85H Critical Writing About Literature
4. 2.0 credits from courses whose content is pre-1900
5. 4.0 additional credits in English.

Among the 7.5 credits required for the Major as outlined above, at least two full credits must be at the C- or D-level.
ENGBS3H4 Canadian Literary Traditions
An examination of large issues and themes that have shaped Canadian literature. Focusing on the development and emergence of a Canadian literary tradition, this course examines the problems of writing in a New World nation, the emergence and definition of an indigenous tradition, and the challenges such a tradition faces. Exclusion: (ENGBO7Y), ENG252Y

ENGBH1H Nation in Canadian Writing
An examination of the formation of identity, of a sense of belonging, and of the problems of nationhood in Canadian writing. Exclusion: (ENGBO7Y), ENG252Y

ENGBH95H 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 conquest and captivity narratives, theological tracts, sermons, and diaries, as well as classic novels and poems - in relation to the multiple revolutions of the period. Pre-1940 course: Exclusion: ENG(B7Y), ENG250Y, ENG355Y

ENGBH2H American Literature from the Civil War to the Present
An introductory survey of major novels, short fiction, poetry, and drama. An introductory survey of major novels, short fiction, poetry, and drama from The Adventures of Huckleberry Finn to Miss Jane Pittman. With an emphasis on themes of immigration and the westward expansion. Pre-1940 course: Exclusion: ENG(B7Y), ENG355Y

ENGB1H3 Introduction to Shakespeare
An introduction to Shakespeare's comedies and tragedies. An introduction to the Elizabethan playwrights and their plays. Pre-1940 course: Exclusion: ENG(B7Y), ENG220Y

ENGB1H3 The Beginnings of Modern Drama
A reading of plays from 1879 to the 1920s and after. Taking Ibsen's A Doll's House as the starting point, the course looks at drama by Pinero, Shaw, Wilde, and other authors - such as David Belasco, Stanley Houghton, John Galsworthy, Eugene O'Neill and Terence Rattigan. Exclusion: ENG111Y, ENG335Y

ENGB12H3 Life Writing
Life-writing, whether formal biography, crude memoir, postmodernist fiction, or published personal journal, is popular with writers and readers alike. This course introduces students to life-writing as a literary genre and explores major issues such as life-writing and fiction, life-writing and history, the contract between writer and reader, and gender and life-writing. Exclusion: ENG111Y, ENG335Y

ENGB13H3 Drama after 1960
An examination of drama in English since 1960. Authors studied will include playwrights such as Harold Pinter, Brian Friel, Caryl Churchill, August Wilson, Timberlake Wertenbaker, Tomon Highway, Athol Fugard, David Flanders, Sam Shepard, Bela Hunyecz, and others. Exclusion: ENG111Y, ENG335H

ENGB17H3 Contemporary Literature from the Caribbean
A study of literature in English 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: ENG255Y, ENG231Y, NUS223Y

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: ENG255Y
ENG243H1 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 English brochure for details.)
Exclusion: ENGB60Y1, ENGB69Y

ENG82H3 Creative Writing: Scripts and Drama
This course provides an introduction to scriptwriting through intensive workshop sessions. Admission by portfolio. (Consult the English brochure for details.)
Limited enrolment: 25

ENG54H3 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, translation, and transformation.
Exclusion: ENGB54Y1

ENG87H3 Introduction to Cinema
An introduction to the critical study of cinema, including films from a broad range of genres, countries, and eras, as well as readings representing the major critical approaches to cinema that have developed over the past century.
Exclusion: ENGB87Y

ENG57H3 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.
Exclusion: ENGB76H3

ENG58H3 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: ENGB338H
ENGC131H Ethnic Traditions in American Literature
A survey of the literature of Native Peoples, Africans, Irish, Jews, Italians, Latinos, and East Asians in the U.S., focusing on one or two groups each term. We will focus on how writers of each group register the affective costs of the transition from "old-world" cultural practice to "new-world" individualism.
Limited enrolment: 50
Prerequisite: [ENG100H3 & ENG104H1] or one of ENG205H3 or ENG211H1 or (ENG250H3) or (ENG290H3).

ENGC140H3 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 movements; the concepts and difficulties of periodization; the political, social, and cultural implications of literary canonization; and the history of English as a discipline.
Limited enrolment: 50
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG323H3) or (ENG327H3) or (ENG331H3) or (ENG332H3).

ENGC150H3 Concepts in Literary Criticism
A study of selected topics in literary criticism. Limited enrolment: 50
Exclusion: ENG257H3
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG323H3) or (ENG327H3) or (ENG331H3) or (ENG332H3).

ENGC290H3 Victorian Poetry and Prose, 1830-1900
Poetry and non-fiction prose of the Victorian period. An examination of authors such as Tennyson, the Brownings, the Rossettis, Maugham, Carlyle, Mill, Roskams, Arnold, Moore, Faiz, and Wilde and of a culture in transition: the Condition of England, the Woman Question, liberty and equality, imperialism and nationalism; theology and science; aristocracy and decadence.
Pre-1900 course
Limited enrolment: 50
Exclusion: (ENG227H3)
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG290H3) or (ENG291H1)

ENGC291H The Victorian Novel to 1860
A study of major works of Victorian fiction, 1830-1860. This course focuses on the development of the realist 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: (ENG300Y) (ENG329H3)
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG290H3) or (ENG291H1) or (ENG292H1)

ENGC292H3 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: (ENG227H3), (ENG324Y)
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG290H3) or (ENG291H1) or (ENG292H1) or (ENG293H1)

ENGC293H Drama: Tragedy
An exploration of major dramatic tragedies in the classic 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: (ENG121Y)
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG290H3) or (ENG291H1) or (ENG292H1) or (ENG293H1) or (ENG294H1) or (ENG295H1) or (ENG296H1) or (ENG297H1) or (ENG298H1) or (ENG299H1)

ENGC294H3 Topics in Medieval Literature
A study of selected medieval texts by one or more authors.
Pre-1900 course
Limited enrolment: 50
Exclusion: (ENG334H3)
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG290H3) or (ENG291H1) or (ENG292H1) or (ENG293H1) or (ENG294H1) or (ENG295H1) or (ENG296H1) or (ENG297H1) or (ENG298H1) or (ENG299H1)

ENGC295H3 The Golden Age: Elizabethan Literature
Prose, poetry and drama from the Age of Queen Elizabeth. Texts include Marlowe's Dr. Faustus; Sidney's Defence of Poesy; Spenser's The Faerie Queene (Book II and MaudhildeCanus); Shakespeare's Love's Labour's Lost and The Merchant of Venice; and Lyly's Galatea, plus selections from such authors as Ascham, Greene, Hooker, Wotton, Surrey, and Drayton.
Pre-1900 course
Limited enrolment: 50
Exclusion: (ENG323Y), (ENG324Y)
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG290H3) or (ENG291H1) or (ENG292H1) or (ENG293H1) or (ENG294H1) or (ENG295H1) or (ENG296H1) or (ENG297H1) or (ENG298H1) or (ENG299H1)

ENGC296H3 Literature of Decadence and Dissent, 1600-1660
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, Massinger and Ford. Texts include selections from Bacon's Essays and Novum Organum; Browne's Religio Medici; Andrews's Sermons; poetry of Herbert, Vaughan, Quarles and Marvell.
Pre-1900 course
Limited enrolment: 50
Exclusion: (ENG323Y), (ENG325Y)
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG290H3) or (ENG291H1) or (ENG292H1) or (ENG293H1) or (ENG294H1) or (ENG295H1) or (ENG296H1) or (ENG297H1) or (ENG298H1) or (ENG299H1)

ENGC297H3 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, Jonson's brilliant comedies, Swift his bitter satires, and Pope his technically balanced but often viscerally biased poetry.
Pre-1900 course
Limited enrolment: 50
Exclusion: (ENG306Y), (ENG307Y)
Prerequisite: ENG300H3 & ENG304H1 & (one of ENG305H3 or ENG311H1) or (ENG290H3) or (ENG291H1) or (ENG292H1) or (ENG293H1) or (ENG294H1) or (ENG295H1) or (ENG296H1) or (ENG297H1) or (ENG298H1) or (ENG299H1)
ENGC37H3 Literature and Culture
1750-1830
An exploration of literature and literary culture during the end of the eighteenth and beginning of the nineteenth centuries. We will trace the development of a consciously national culture, and birth of the concepts of high, middle, and low cultures. Authors may include Johnson, Boswell, Burney, Sheridan, Smollett, Blake, and Wordsworth.
Pre-1900 course
Limited enrolment: 50
Exclusion: ENGC36Y
Prerequisite: ENG30H3 & ENG38H4 & [one of ENG30H3 or ENG38H4] or (ENG30H3)

ENGB38H3 Novel Genres: Fiction, Journalism, News, and Autobiography
1640-1775
An examination of generic experimentation that began during the English Civil Wars and led to the novel. We will address such authors as Aphra Behn and Daniel Defoe, alongside news, ballads, and scandal sheets; and look at the book trade, censorship, and the growth of the popular press.
Pre-1900 course
Limited enrolment: 50
Exclusion: ENGC38Y
Prerequisite: ENGB30H3 & ENGB48H4 & [one of ENGB30H3 or ENGB48H4] or (ENG30H3)

ENGB39H3 The Early Novel in Context, 1740-1830
A contextual study of the first few fictions that contemporaries recognized as being the novel. We will examine the novel in the context of its readers, of its audience, of its production. We will trace the development of the genre in the eighteenth century, and look at how the novel evolved into the novel we know today.
Pre-1900 course
Limited enrolment: 50
Exclusion: ENGB38Y, ENGB32Y
Prerequisite: ENGB30H3 & ENGB48H4 & [one of ENGB30H3 or ENGB48H4] or (ENG30H3)

ENGC42H3 Romanticism
A study of the Romantic movement in European literature. 1790-1850. This course investigates the cultural and historical origins of the Romantic Movement, its complex definitions and varieties of expression, and the responses it provoked in the wider culture. Examination of representative authors such as Goethe, Rousseau, Wordsworth, Wordsworth, Coleridge, Blake, P. B. Shelley, Keats, Byron, and M. Shelley will be combined with study of the philosophical and historical backgrounds of Romanticism.
Pre-1900 course
Limited enrolment: 50
Exclusion: (ENG42Y, ENGC40Y
Prerequisite: ENGB30H3 & ENGB48H4 & [one of ENGB30H3 or ENGB48H4] or (ENG30H3)

ENGC43H3 Modern Poetry
A study of poetry written roughly between the World Wars. Poets from several nations may be considered. Topics to be treated include Modernist difficulty, formal experimentation, and the politics of verse. Literary traditions from which Modernist poets drew will be discussed, as will the influence of Modernism on post-modern writing.
Limited enrolment: 50
Prerequisite: ENGB30H3 & ENGB48H4 & [one of ENGB30H3 or ENGB48H4] or (ENG30H3)

ENGC44H3 The American Renaissance
Study of the works of the remarkable literary figures in the U.S. preceding the publication of Emerson’s “Nature” in 1836 and the outbreak of the Civil War in 1860. Authors to be considered include Emerson, Thoreau, Whitman, Melville, Hawthorne, Dickinson, Stowe, Douglass, and Lincoln.
Pre-1900 course
Limited enrolment: 50
Exclusion: ENGC43Y
Prerequisite: ENGB30H3 & ENGB48H4 & [one of ENGB30H3 or ENGB48H4] or (ENG30H3)

ENGC50H3 Studies in Contemporary American Fiction
Developments in American fiction from the end of the 1950s to the present. A study of fiction from the period that produced James Baldwin, Saul Bellow, Philip Roth, John Updike, Norman Mailer, Am. Beauty, Raymond Carver, Don DeLillo, Toni Morrison, Maxine Hong Kingston, and Leslie Marmon Silko. The course may be organized around themes or movements.
Limited enrolment: 50
Exclusion: ENGB41H
Prerequisite: [ENG30H3 or ENGB40H4 & one of ENGB50H3 or (ENG38H4)] or (ENG30H3)

ENGC55H3 Literature and Media: The Spoken Word and the Visual Page
The ways media shape literature. Literary works have existed in oral forms (from early episodes to popular oral poetry and literature written for radio) shaped by incipient techniques and limitations, as well as in the visual medium of print on the page and of images integrated into the text (medieval manuscript, Blake, graphic novels).
Limited enrolment: 50
Exclusion: ENGC43Y
Prerequisite: ENGB41H & ENGB40H4 & [one of ENGB50H3 or (ENG38H4)] or (ENG30H3)

ENGC51H3 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 literature through works such as Sir Gawain and the Green Knight, Book III of The Faerie Queene, and Henry V.
Limited enrolment: 50
Exclusion: ENGC42Y
Prerequisite: ENGB41H & ENGB40H4 & [one of ENGB50H3 or (ENG38H4)] or (ENG30H3)

ENGC51H3 Mythic Backgrounds to Literature: The Gods and Humanity
An analysis of the relationship between myth and literature. Drawing on early texts by S. Sophocles, Hesiod, Ovid, and others, the course examines the myths of gods and their relationships with human beings as used by writers such as Yeats, Auden, and Bryant and in the theories of Freud, Jung, Fraser, and Frye.
Limited enrolment: 50
Exclusion: ENGC42Y
Prerequisite: [ENG30H3 or ENG30H4 & one of ENGB40H3 or (ENG38H4)] or (ENG30H3)

ENGC55H3 Studies in Travel Literature
before 1830
An examination of the genre of travel literature before 1830. Focus may change yearly and will include travel literature by women or other marginalized groups such as servants and slaves, exploration literature, literature of imperial or colonial travel, travel literature houses, pilgrimage; fictional travel.
Pre-1900 course
Limited enrolment: 50
Prerequisite: ENGB30H3 & ENGB40H4 & [one of ENGB30H3 or (ENG38H4)] or (ENG30H3)
ENGG6703 Independent Studies: Creative Writing
An opportunity for students who have excelled in introductory creative writing to pursue independent study. Note: Students may count no more than 1 FCE of independent study in creative writing towards an English program.
Exclusion: ENG391Y
Prerequisite: [ENG606H or ENG616H or ENG626H] and permission of the instructor.

ENGG6704 Independent Studies: Creative Writing
An opportunity for students who have excelled in introductory creative writing to pursue independent study. Note: Students may count no more than 1 FCE of independent study in creative writing towards an English program.
Exclusion: ENG391Y
Prerequisite: ENG626H, ENG631H or ENG626H

ENGG6705 Independent Studies: Creative Writing
An opportunity for students who have excelled in introductory creative writing to pursue independent study. Note: Students may count no more than 1 FCE of independent study in creative writing towards an English program.
Exclusion: ENG391Y
Prerequisite: ENG626H, ENG631H or ENG626H

ENGG6803 Gothic Literature
A study of the Gothic tradition in literature since 1760. "Gothic" is a dark style in the arts, a language of terror, recognizable by allusions to ruined castles, graveyards, sublime landscapes, religious superstition, and plots involving imprisonment and torture. nightmarish of the unconscious mind, and monstrous deformities of the human body.
Limited enrolment: 50
Prerequisite: ENG603H & ENG604H & [one of ENG605H or ENG610H] or [ENG602Y]

ENGC703Y The Immigrant Experience to 1980
An examination of twentieth-century literature, especially fiction, written out of the experience of people who leave one society to come to another already made by others. We will compare the literatures of several ethnic communities in at least three nations, the United States, Britain, and Canada.
Limited enrolment: 50
Exclusion: ENGC71Y
Prerequisite: ENGB30H & ENGB40H & [one of ENG605H or (ENG610H) or (ENG621H)]

ENGC713H The Immigrant Experience in Literature since 1980
A continuation of ENGC704H, focusing on texts written since 1980.
Limited enrolment: 50
Exclusion: ENGC71Y
Prerequisite: ENGB30H & ENGB40H & [one of ENG605H or (ENG610H) or (ENG621H)]

ENGC729H 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 reality, and to audience, as well as the issues of creating art in a world of suffering and de-colonizing the narrative of history.
Limited enrolment: 50
Exclusion: ENGC233Y, (ENG614H)
Prerequisite: ENGB30H & ENGB40H & [one of ENG605H or (ENG610H) or (ENG621H)]

ENGC731H Comedy, Satire, and Humour, 1660-1820
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 no man's land between pain and horror and pleasure and delight.
Pre-1900 course
Limited enrolment: 50
Prerequisite: ENGB30H & ENGB40H & [one of ENG605H or (ENG610H) or (ENG621H)]

ENGC7803 The Body in Modernity: Theories and Representations
An interdisciplinary course about the body in art, film, photography, narrative and popular culture.
How bodies are written or visualized as "feminine" or "masculine," as heroic, as representing normality or perversion, beauty or monstrosity, legitimacy or illegitimacy, nature or culture. Same as VPHC471H.
Limited enrolment: 45
Exclusion: VPHC471H
Corequisite: Two full credits from (ENGB101H, (ENG622I), ENG631H, ENGB40H, ENG651H, (ENG621Y), (ENG602Y), (VPHA401H), (VPAA405H), VPA405H, VPAA405H, VPAA510H, VPAA511H, WSTA401H, WSTA401Y), or permission of the instructors

ENGC777H The Body in Contemporary Culture: Theories and Representations
A course focusing on the experience of the body in the public spaces of the modern city and in cyberspace. Of special interest will be the viewpoints of artists, writers, and filmmakers who explore how the "other" is constructed in terms of class, culture, and ethnicity.
Same as VPHC481H.
Exclusion: VPHC481H
Corequisite: Two full credits from (ENGB101H, (ENG622I), ENG631H, ENGB40H, ENG651H, (ENG621Y), (ENG602Y), (VPHA401H), (VPAA405H), VPA405H, VPAA405H, VPAA510H, VPAA511H, WSTA411H, WSTA411Y), or permission of the instructors.

ENGC808H Dysplean Visions in Fiction and Film
Negative utopias and post-apocalyptic worlds. The course will draw from novels such as 1984, Brave New World, Clockwork Orange, and Oryx and Crake, and films such as Matrix, Mad Max, Brazil, or The Matrix. Why do we find stories about the world gone wrong so compelling?
Limited enrolment: 50
Prerequisite: ENGB30H & (ENG604H & [one of ENG605H or (ENG610H) or (ENG621H)])

ENGC808H 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: [ENGB30H & ENG640H & [one of ENG605H or (ENG610H)] or (ENG621H)]

ENGC813H 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 how the "centre" constructed the "margin".
Limited enrolment: 50
Prerequisite: [ENGB30H & ENG640H & [one of ENG605H or (ENG610H)] or (ENG621H)]

ENGC820H Cinema Studies: Themes and Theories
A variable theme course that will feature different theoretical approaches to Cinema: feminist, Marxist, psychoanalytic, postcolonial, and semiotic. Thematic clusters include: "Madness in Cinema," and "Films on Films."
Limited enrolment: 50
Prerequisite: ENGB30H & ENG640H & [one of ENG605H or (ENG610H)] or (ENG621H)

ENGC839H 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 Hurracana Ford's spilling on "savage" visuals in the Temple of Doom, the construct of the "white" explorer or soldier has depended on a counter-image: the exotic, inestimable, recherché, unpredicatable native or "other."
Limited enrolment: 50
Prerequisite: ENGB30H & ENG640H & [one of ENG605H or (ENG610H) or (ENG621H)]
ENGD03H3 Studies in Medieval Literature
Topics in the literature and culture of the medieval period. Topics vary from year to year and might include a study of one or more authors.
Pre-1990 course
Limited enrolment: 22
Prerequisite: 2 C-level courses in English.

ENGD48H3 Confessional Poetry
The emergence of the confessional voice in American and British poetry. Authors emphasized will be Edward Said, Adrienne Rich, and Allen Ginsberg.
Pre-1990 course
Limited enrolment: 22
Prerequisite: 2 C-level courses in English.

ENGD64H3 T.S. Eliot
The poems, plays, and essays of T.S. Eliot, one of the founders of literary modernism.
Pre-1990 course
Limited enrolment: 22
Prerequisite: 2 C-level courses in English.

ENGD51H3 Alice Munro
A study of the short fiction of Alice Munro.
Pre-1990 course
Limited enrolment: 22
Prerequisite: 2 C-level courses in English.

ENGD52H3 Power and Perception: Imperialism, Colonialism, and Identity in Twentieth-Century Fiction
An exploration of multicultural 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.

ENGD05H3 Emerson and the Emersonian Tradition in American Poetry
A reading of the "central" tradition of American poetry as originating in the writings of Ralph Waldo Emerson. Major poems by Whitman, Emily Dickinson, Robert Frost, Wallace Stevens, A.R. Ammons, and John Ashbery will be read in relation to Emerson's distinctive formulation of transcendental currents of Romanticism.
Pre-1990 course
Limited enrolment: 22
Prerequisite: ENGBC4H3 & ENGBO9H3 or ENGBO9H3 & 2 C-level courses in English.

ENGD04H3 The Problem of a Liberal Culture: Emerson and Nineteenth-Century Cultural Prophecy
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, Rankin, and Nietzsche in efforts to construct a post-Enlightenment, post-revolutionary, trans-Atlantic substitute for the fin-de-siècle aesthetic culture of the ancien régime.
Pre-1990 course
Limited enrolment: 22
Prerequisite: ENGUC1H2 or 2 C-level courses in English.

ENGD01H3 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: ENGUC1H2 or 2 C-level courses in English.

ENGD02H3 Power and Perception: Imperialism, Colonialism, and Identity in Twentieth-Century Fiction
An exploration of multicultural 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.
ENG925H3 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

ENG926H3 Popular American Lyric
A study of two centuries' worth of the favourite poems and songs of the American people, from the Frickey Poets to Rap music. Among the authors to be studied may be Bryant, Longfellow, Whittier, Holmes, Frost, T.S. Eliot, Fitzgerald, Billie Holiday, Frank Sinatra, Irving Berlin, Cole Porter, Bing Crosby, Bob Dylan, and twenty years of Rap. Limited enrolment: 22
Prerequisite: 3 C-level courses in English

ENG927H3 Satire
An investigation of the literatures and theories of the unlaible, the reformist, the iconoclast, and the provocative. Satire can be conservative or subversive, corrective or satirical. This course will address a range of satire and its theories. Writers may range from Juvenal, Horace, Lucian, Erasmus, Doree, James, Rochester, Dryden, Swift, Pope, Gay, Haywood, and Behn to Pynchon, Nabokov and Aynard. Pre-1900 course
Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG928H3 Travel and Travellers in Literature
A study of fictional, semi-fictional, and non-fictional accounts of travel. Reading works by such writers as Horner, Lucian, Margery Kempe, Sir John Mandeville, Raleigh, Nash, Lady Montagu, Swift, and John Bartram, we will study travel accounts ranging through the forest transportation of slaves, pilgrimage, exploration, and tourism. Pre-1900 course
Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG929H3 The Open Road in North American Narrative
An investigation of the myth of the open road in the North American imagination. From Huckleberry Finn to recent novels, non-fiction accounts, and films, stories about travelling the open road have helped to organize the larger American narrative. Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG930H3 Women and Canadian Writing
A study of the remarkable contribution of women writers to the development of Canadian writing. Drawing from a variety of authors and genres (including novels, essays, poems, autobiographies, biographies, plays, and travel writing), this course will look at topics in women and Canadian literature in the context of theoretical questions about women's writing. Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG931H3 Myth and Canadian Fiction
An examination of Canadian writing in the context provided by myth. The course will examine the significance of myths studied in ENG928 for work by such Canadian writers as MacLennan, Winton, Laurence, Ondaatje, Bignorth, and King. Limited enrolment: 22
Exclusion: ENG626Y (ENG625H)
Prerequisite: 2 C-level courses in English

ENG932H3 Canadian Writing for the New Century
An analysis of features of Canadian writing at the end of the twentieth and the beginning of the twenty-first century. This course will consider such topics as changing themes and sensibilities, canonical challenges, and millennial and apocalyptic themes associated with the end of the twentieth century. Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG933H3 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

ENG934H3 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

ENG935H3 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

ENG936H3 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 Tommys and Browsing. Pre-1900 course
Limited enrolment: 22
Exclusion: ENG443Y
Prerequisite: 2 C-level courses in English

ENG937H3 Avant-Garde Cinema
An exploration of Avant-Garde cinema from the earliest experiments of German Expressionism and Surrealism to our own time. The emphasis will be on cinema as an art form aware of its own uniqueness, and determined to discover new ways to exploit the full potential of the "cinematic". Limited enrolment: 22
Prerequisite: 2 C-level courses in English

ENG938H3 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 defined by interactivity and still retain coherence and consistency. Limited enrolment: 22
Prerequisite: 2 C-level courses in English
Environmental Science

ENG987H

ENG989H3 Independent Studies in Literature
An opportunity for students to pursue one-term projects of independent literary study under the supervision of a member of the English faculty. Students should discuss their interests in this opportunity with appropriate faculty and the Discipline Representative or Supervisor of Studies in advance of the proposed course. These courses are only open to students with strong records who are completing the last 3 courses of their degree and who have completed 2 FCEs in C-Level English. This course is contingent upon acceptance by a faculty supervisor and approval of the English group. Depending on subject area, this course can be counted towards the pre-1900 requirement. Note: Students may count no more than 1 FCE of ENG979H, ENG989Y, and ENG999Y towards an English program.

Exclusion: ENG499Y

Prerequisite: 2 C-level courses in English

Environmental Science
(B.Sc.)

Faculty List
J.A. Westgate, B.Sc. (Reading), Ph.D. (Alberta), Professor Emeritus
N. Eyres, B.Sc. (Leicester), M.Sc. (Memorial University NL, D.Ed. (East Anglia), D.Sc. (Leicester), P.Geo., Professor
B. Greenwood, B.Sc., B.Sc. (Briso), Ph.D. (Hons. Cana, Uppsala), Professor
K.W.F. Howard, BSc (Essex), MSc, PhD (Birmingham), PGCE, CEng/FIBG, FHG, Professor
D.D. Williams, B.Sc. (University College, North Wales), Dip. Ed. (Liverpool), M.Sc., Ph.D. (Waterloo), D.Sc. (Wales), Professor
R.R. Falthorne, B.S., M.Sc., B.Sc. (Carlin), Associate Professor
W.A. Gough, B.Sc. (Waterloo), M.Sc. (Toronto), Ph.D. (McGill), Associate Professor
A.D. Price, B.S., M.S., Ph.D. (McGill), Associate Professor
F. Wania, B.A. (Barehead), B.A., M.Sc. (Toronto), Associate Professor
A. More, M.Sc. (Florida State), Ph.D. (London), P. Geo., Adjunct Associate Professor
G.B. Abodoulian, BSc & MSc (Agricultural Univ of Athens, Greece), PhD (Univ of the Aegean, Greece), Assistant Professor
A. Simpson, B.Sc., Ph.D. (Birmingham), Assistant Professor
M.J. Simpson, B.Sc., Ph.D. (Alberta), Assistant Professor
M. Wells, B.Sc., Ph.D. (Australian National), Assistant Professor
R.E. Garber, 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.

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, ecology, geography, mathematics, physics, and geology.

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 U of T. 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 Biology, Environmental Chemistry, Environmental Geoscience and Environmental Physics and 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
Superintendent of Studies: A.G. Price (416-287-7327) Email: price@envi.utoronto.ca
Advisor: R.D. Williams (416-287-7423)

Program Requirements
Total requirements: 14.5 FCE

First Year:
EEAAH1H Introduction to Environmental Science
EEAAH6H Introduction to Planet Earth
BGAH11H Introduction Biology: Part I
BGAH22H Introduction Biology: Part II
CHMAH1H Introduction Chemistry I: Structure and Bonding
CHMAH1H Introduction Chemistry II: Reactions and Mechanisms
MATASH1 Calculus I
MATASH5H Calculus II for Biological Sciences
MATASH6H Calculus II for Physical Sciences
MATASH7H Calculus II for Mathematical Sciences
PHYAH1H Introduction to Classical Physics

Second Year:
BOBYH6H Ecology
BOBYH8H Evolutionary Biology
BOBYH2H Geology and Evolutionary Biology Laboratory
EEBSH1H Earth History
EEBSH6H Feeding Humans - The Cost to the Planet
STARH3 Statistics
PSIBH3H Introduction to Scientific Computing
SCSAH6H Introduction to Computer Programming

and
1.0 FCE from the following:
- EESB01H Principles of Plant Ecology
- EESB04H Principles of Hydrology
- EESB05H Principles of Soil Science
- CHMB13H Environmental Chemistry

Third Year:
- EESC02H Geographical Information Systems and Remote Sensing
- EESC04H Biodiversity and Biogeography
- EESC32H Research Seminar in Environmental Science
- EESC35H Microbial Biogeography
- BGVC51H Advanced Population Ecology
- BGVC61H Advanced Community Ecology
- BGVC63H Conservation Biology
- and
- 0.5 FCE from the following:
  - BGVC57H Evolutionary and Applied Biology of Insects
  - BGVC65H Environmental Toxicology

Fourth Year:
- EESC33H Environmental Impact Assessment and Auditing
- 0.5 FCE from the following:
  - EESD06H Climate Change Impact Assessment
  - EESD15H Clearing up the Mess: Remediation of Terrestrial and Aquatic Environments
  - EESD12H Contaminant Fate in Terrestrial Environments
- and
- 0.5 FCE from the following:
  - BGVC52H Ecology Field Course
  - BGVC53H Marine Biology
  - BGVC57I Lake-University Advanced Field Ecology
  - BGVD01H River Ecology

Strongly recommended:
- BGVD01Y Supervised Study in Environmental Biology
- EESD10Y 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. Donohue (416-287-7213)

Program Requirements
Total requirements: 15.0 FCE

First Year:
- EESA01H Introduction to Environmental Science
- EESA06H Introduction to Planet Earth
- BGVA01H Introductory Biology: Part I
- BGVA02H Introductory Biology: Part II
- CHMA10H Introductory Chemistry I: Structure and Bonding
- CHMA11H Introductory Chemistry II: Reactions and Mechanisms
- MATA30H Calculus I
- MATA55H Calculus II for Biological Sciences
  or MATA36H Calculus II for Physical Sciences
  or MATH37H Calculus II for Mathematical Sciences
- PHYA10H Introduction to Classical Physics

Second Year:
- BGYS00H Ecology
- CHMB20H Chemical Thermodynamics and Elementary Kinetics
- CHMB21H Chemical Structure and Spectroscopy
- CHMB41H Organic Chemistry I
- CHMB42H Organic Chemistry II
- CHMB55H Environmental Chemistry
- STA322H Statistics I

Total: 1.0 FCE from the following:
- EESB03H Principles of Climatology
- EESB04H Principles of Hydrology
- EESB05H Principles of Soil Science
- EESB15H Earth History

Third Year:
- EESC03H Geographical Information Systems and Remote Sensing
- EESC07H Groundwater
- EESC13H Environmental Impact Assessment and Auditing
- EESC14H Research Seminar in Environmental Science
- CHMB16H Techniques in Analytical Chemistry
- CHMB17H Introduction to Inorganic Chemistry
- PSCB70H Introduction to Scientific Computing

Fourth Year:
- EESD02H Contaminant Hydrogeology
- EESD15H Clearing up the Mess: Remediation of Terrestrial and Aquatic Environments
- EESD12H Contaminant Fate in Terrestrial Environments
- CHMC11H Principles of Analytical Instrumentation
- 0.5 FCE from the following:
  - CHMC21H Topics in Biophysical Chemistry
  - CHMC31Y Intermediate Inorganic Chemistry
  - CHMC41H Intermediate Organic Chemistry
  - CHMC47H Bio-Orgnic Chemistry

SPECIALIST PROGRAM IN ENVIRONMENTAL GEOSCIENCE

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

Program Requirements
Total requirements: 15.0 FCE

First Year:
- EESA06H Introduction to Environmental Science
- EESA06H Introduction to Planet Earth
- BGVA01H Introductory Biology: Part I
- BGVA02H Introductory Biology: Part II
- CHMA10H Introductory Chemistry I: Structure and Bonding
- CHMA11H Introductory Chemistry II: Reactions and Mechanisms
- MATA30H Calculus I
- MATA35H 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:
BGB530H Ecology
CUMB55H Environmental Chemistry
EESB20H Principles of Geomorphology
EESB30H Principles of Climatology
EESR01H Principles of Hydrology
EESR05H Principles of Soil Science
EESB15H Earth History
PSCB17H Introduction to Scientific Computing
STAR22H Statistics I

Third Year:
EESC30H Geographic Information Systems and Remote Sensing
EESC30H Biodiversity and Biogeography
EESC20H Groundwater
EESC23H Environmental Impact Assessment and Auditing
EESC15H Research Seminar in Environmental Science
EESC31H Principles of Glacial Sedimentology and Stratigraphy
EESC23H Mineralogy and Petrology
and
0.5 FCEs from the following:
EESC30H The Great Lakes: A Lacustrine System
EESC19H Marine Systems

Fourth Year:
1.0 FCE from the following:
EESC31H Urban Environmental Problems of the Greater Toronto Area
EESD32H Contaminant Hydrogeology
EESD36H Climate Change Impact Assessment
EESD30H Research Project in Environmental Science
EESD30Y Research Project in Environmental Science
EESD31H Process Hydrology
EESD15H Cleaning up our Mess: Remediation of Terrestrial and Aquatic Environments
EESD32H Contaminant Fate in Terrestrial Environments
and
1.0 FCE from any other EES courses
Strongly recommended: EESC16H, EESD07H or BGYC53H

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

Program Requirements
Total Requirements: 15.0 FCE

First Year:
PHYA100H Introduction to Classical Physics
PHYA221H Introduction to Modern Physics
MATA33H Calculus I
MATA36H Calculus II for Physical Sciences
CHMA101H Structure and Bonding
CHMA111H 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
CUMB55H Environmental Chemistry
EESB20H Principles of Geomorphology
EESB30H Principles of Climatology
EESB40H Principles of Hydrology
EESB05H Principles of Soil Science
PSCB27H Introduction to Scientific Computing

Third Year:
PHYB10H Intermediate Physics Laboratory I
PHYB11H Intermediate Physics Laboratory II
STAR22H Statistics
EESB15H Earth History
EESC30H Remote Sensing and Geographical Information Systems
EESC31H Principles of Glacial Sedimentology and Stratigraphy
EESC15H Research Seminar in Environmental Science
EESC20H Groundwater
EESC31H The Great Lakes
or
EESC19H Marine Systems

Fourth Year:
EESC31H Environmental Impact Assessment and Auditing
PSCD10H The Physical Sciences in Contemporary Society
1.0 FCE from:
EESC31H Urban Environmental Problems of the Greater Toronto Area
EESD32H Contaminant Hydrogeology
EESD36H Climate Change Impact Assessment
EESD30H Research Project in Environmental Science
EESD30Y Research Project in Environmental Science
EESD31H Process Hydrology
EESD32H Contaminant Fate in Terrestrial Environments

MAJOR PROGRAM IN ENVIRONMENTAL SCIENCE
Supervisor of Studies: A.D. Price (416-287-7327) Email: price@utsc.utoronto.ca

The Major Program is designed to provide an excellent background in the basic principles of Environmental Science and its application to current environmental issues. It is intended for students with an interest in environmental issues but who do not wish to specialize in the field. It is appropriate for students pursuing a three-year degree or those pursuing a four-year degree with more than one area of specialization (e.g., Biology, Chemistry, Physics, International Development Studies, Society and Environment). The program is offered in three streams: General Environmental Science, Environmental Biology and Water Science.

Program Requirements
General Environmental Science Stream
Advisor: A.G. Price (416-287-7327)
Total requirements: 7.0 FCE

First Year:
EESA01H Introduction to Environmental Science
EESA06H Introduction to Plant Earth
BGYA10H Introductory Biology: Part I
BGYA11H Introductory Biology: Part II
Second Year:
EE8060H Principles of Geomorphology
EE8060H Principles of Climatology
EE8060H Principles of Hydrology
EE8060H Principles of Soil Science
EE8151H Earth History
or
STA223H Statistics
or
CSCA00H Introduction to Computer Programming
or
PSCB95H Introduction to Scientific Computing

Third Year:
BGYB505H Ecology
EE8005H Geographic Information Systems and Remote Sensing
EE8105H Environmental Impact Assessment and Auditing
EE8111H Principles of Glacial Sedimentology and Stratigraphy

Environmental Biology Stream
Advisor: D.D. Williams (416-287-7423)
Total Requirements: 7.0 FCE

First Year:
EE8A01H Introduction to Environmental Science
EE8A02H Introduction to Planet Earth
BGYA01H Introductory Biology: Part I
BGYA02H Introductory Biology: Part II

Second Year:
BGYB501H Ecology
BGYC501H Evolutionary Biology
BGYC502H Ecology and Evolutionary Biology Lab
EE8B01H Principles of Climatology
EE8B04H Principles of Hydrology
EE8B05H Principles of Soil Science

Third Year:
EE8C04H Biodiversity and Biogeography
STA223H Statistics
1.0 FCE from the following:
BGYC507H Evolutionary and Applied Biology of Insects
BGYC508H Conservation Biology
BGYC505H Environmental Toxicology
CHMB553H Environmental Chemistry
EE8B16H Feeding Humans - The Cost to the Planet
EE8C301H Microbial Biogeochemistry

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

First Year:
EE8A01H Introduction to Environmental Science
EE8A06H Introduction to Planet Earth
BGYA01H Introductory Biology: Part I
BGYA02H Introductory Biology: Part II
EE8A07H Water

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Second Year:
EE8B02H Principles of Geomorphology
EE8B03H Principles of Climatology
EE8B04H Principles of Hydrology
BGYB505H Ecology

Third Year:
EE8C03H Geographic Information Systems and Remote Sensing
EE8C07H Groundwater
EE8C11H Environmental Impact Assessment and Auditing
[EE8C18H The Great Lakes: A Lacustrine System]
or
EE8C19H Marine Systems
EE8C31H Principles of Glacial Sedimentology and Stratigraphy

1.0 FCE from the following:
BGYC501H Marine Biology
BGYC505H Environmental Toxicology
BGYD501H River Ecology
CLAB001H The Mediterranean World I: Greece
CLAB004H The Mediterranean World II: Rome
EE8D02H Contaminant Hydrogeology
EE8D11H Process Hydrogeology

MINOR PROGRAM IN ENVIRONMENTAL SCIENCE
Supervisor of Studies/Advisor: A.G. Price (416-287-7327) Email: price@stc.sherc.utoronto.ca

The Minor Program is designed to provide insights into the basic principles of Environmental Science and its application to current environmental issues. It is intended for students with an interest in environmental issues but who do not have the necessary background for specialization in the field. It is appropriate for students pursuing a three year degree in science or those pursuing a four year degree in the social sciences or in management and economics.

Program Requirements
Total requirements: 4.0 FCE

First Year:
EE8A01H Introduction to Environmental Science
EE8A06H Introduction to Planet Earth

Second Year:
Any 1.5 FCE from the following:
EE8B02H Principles of Geomorphology
EE8B03H Principles of Climatology
EE8B04H Principles of Hydrology
EE8B05H Principles of Soil Science
EE8B15H Earth History

Third Year:
1.5 FCE of any other EES courses of which 1.0 FCE must be at the C- or D-level.

SPECIALIST (JOINT) PROGRAM IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY
(See the Environmental Science and Technology section of this Calendar)

SPECIALIST PROGRAM IN NATURAL SCIENCES
(See the Physical Sciences Scarborough section of this Calendar)
EESAA0H3 Water

This course consists of a survey of the planet’s water resources and the major issues facing the use of water. Topics include: Earth, the watery planet; water, the last great resource; Canada’s waters; Ontario’s waters; water and man; water contamination; and producing our waters. Case studies such as the Walkerton tragedy will be studied. No prior knowledge of environmental science is required.

EESB02H3 Principles of Geomorphology

The physical and chemical processes responsible for the development of rock units at the surface of the earth and the mechanics of entrainment, transport and deposition of mass by rivers, wind, glaciers, water waves, gravitational stresses, etc., which control the evolution of surface morphology. Field excursions and laboratory exercises will allow students to apply theory to natural systems and to understand the dynamics of one man-modified geomorphic system. Prerequisite: EESA06H1

EESB03H3 Principles of Climatology

This is an overview of the physical and dynamic nature of meteorology, climatology and related aspects of oceanography. Major topics include: atmospheric composition, nature of atmospheric radiation, atmospheric moisture and cloud development, atmospheric motion including air masses, front formation and upper air circulation, weather forecasting, ocean circulation, climate classification, climate change theory and global warming. Exclusion: GGR30H3, GGR31H1
Prerequisite: EESA06H1 or EESA09H1

EESB04H3 Principles of Hydrology

The water and energy balances; fluxes through natural systems. Process at the drainage basin scale: precipitation, evaporation, atmospheric transport and streamflow generation. The measurement of water fluxes, forecasting of rainfall and streamflow events. Human activity and change in hydrologic processes. Exclusion: GGR20H1
Prerequisite: EESA01H1 or EESA06H1 or any B-level EES course.

EES005H3 Principles of Soil Science

A study of the processes of pedogenesis and the development of diverse soil profiles, their field relationships and their response to changing environmental conditions. An examination of the fundamental soil properties of importance in soil management. An introduction to the techniques of soil examination in the field, soil analysis in the laboratory and the basic principles of soil classification. Prerequisite: EESA01H1 or EESA06H1

EESB15H3 Earth History

Planet Earth is at least 4.5 billion years old and a geological record exists for at least the last 3,900 million years in the form of igneous, metamorphic and sedimentary rocks. The changing dynamics of convection deep within the Earth’s mantle and associated super-continent assembly and break-up along with meteorite impacts, are now recognized as the major controls on development of the planet’s atmosphere, oceans, biology, climate and geochemical cycles. This course reviews this long history and the methods and techniques used by geologists to identify ancient environments. Prerequisite: EESA01H1 & EESA06H1 or permission of the instructor.

EESB16H3 Feeding Humans - The Cost to the Planet

Examines the origins and systems of production of the major plants and animals on which we depend for food. Interactions between those species and systems and the local ecology will be examined, looking at issues of over harvesting, genetic erosion, soil erosion, pesticide use, and impacts of genetically modified strains. Prerequisite: BGY101H & BGY202H.

EESC02H3 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; geographic and coordinate systems; remotely sensed image manipulation and analysis; map production. Prerequisite: EESA06H1 & 1.5 FCE’s in B- or C-level EES courses. Recommended: A prior introductory GIS course and some experience with the use of computers (Windows or Unix-based).
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EESC4043H Biodiversity and Biogeography
Theoretical and practical aspect of the evolution of organismal diversity. The course will comprise a functional perspective; examination of species distribution and the ecological impact of climate change and human activities. Emphasis will be placed on the highly diverse invertebrate animals. Topics include biomes, dispersal, adaptation, speciation, extinction, and the influence of climate history and human activities. Prerequisite: EGYB58H1 or (BGBY90Y) or permission of the instructor.

EESC4073H Groundwater
Groundwater represents the world’s largest and most important fresh water resource. This course in hydrogeology introduces the principles of groundwater flow and recharge 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 groundwater exploration and assessment; examples of the approach are given for aquifers under environmental stress in southern Ontario, the US and Africa. Prerequisite: EESA40H1 & 1 FCE in 4th-year EES courses.

EESC4133H 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. 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-study exercises. Exclusion: GGR391H Prerequisite: 2.5 FCEs of EES courses or permission of the instructor.

EESC1513 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. A research proposal and a research seminar will be produced. The course is also designed to ensure interaction between students from disparate streams of environmental science through participation in joint seminars with faculty and with environmental practitioners from the community at large. Prerequisite: Permission of co-ordinator.

EESC164H Field Camp I
Many environmental problems can only be assessed by collecting ecological 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 Costa Rica in May 2006. Prerequisite: EESB151H and permission of the instructors.

EESC1893H The Great Lakes: A Lacsistene System
North America is endowed with eight of the twelve largest freshwater lakes in the world. The hydrodynamics and hydrology 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, Langmuir circulation, salinity, waves and water levels. Morphological forms and morphodynamical behaviour as a result of sediment transport processes are examined particularly with respect to coastal processes. Prerequisite: EESE120H Recommended Course: EESB303H

EESC1913H 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. Prerequisite: EESB301H Recommended Course: EESB201H

EESC2143H Urban Environmental Problems of the Greater Toronto Area
Urban areas such as the GTA are the focus of many acute environmental problems such as the disposal of solid and liquid wastes, and the contamination of soil, air and water by industrial activity. Specific cases of such problems drawn from the GTA will be reviewed, with reference to field investigations, environmental audits, due diligence and liability, and remedial solutions. Students will carry out their own field investigations and will report on specific issues, paying particular regard to government legislation and guidelines issued by regulatory agencies. This course is essential to students in the Environmental Science Program, but is also directly relevant to business and management students. Prerequisite: 10 FCEs in an EES Program, or permission of the Instructor.

EESC2483H Advanced Readings in Environmental Science
An advanced supervised readings course that can be taken in any semester. 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.

EESC3203H Microbial Biogeochemistry
This course examines the diversity of microorganisms, their adaptations to special habitats, and their role in the ecosystem and geological cycling. Other topics include microbially mediated, physiological diversity, species interactions and some of the particular methods of detection and enumeration. Exclusion: (BIOCY55H) Prerequisite: (CHMA151H or CHMA131H) and (BGBY90Y) or (CHMA593Y)

EESC3121H 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 fossils landscape inherited from the last Laurentide Ice Sheet that disappeared over 15,000 years ago; much of southern Ontario is buried by glacial sediments and the Great Lakes are the direct result of glaciation. This course will cover 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 Great Lakes region. Prerequisite: EES402H

EESC3223H Mineralogy and Petrology
This course provides an overview of common mineral and rock types and the methods for describing and identifying them. The fundamentals of crystal structure will be reviewed and used as a basis for mineralogical classification. Simple microscopic techniques for mineral identification and the mineralogy and origin of the more common sedimentary, igneous and metamorphic rock types are presented. This course is necessary for those students who wish to seek professional registration as a Professional Geoscientist in Ontario. Limited enrolment: 20 Exclusion: GLG200H, ERS201H, ERS202H Prerequisite: EES403H & EES406H
standing may be eligible for summer financial support from research projects. Permission of the co-ordinator must be obtained. Exclusion: GLG470Y, GLG471H
Prerequisite: EESC15H

EESC15H Process Hydrology
Prerequisite: EESC104H

EESC15H3 Closing 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: BGYA01H & BGYA02H & EESC461H & EESC483H & CHIMB55H

EESC320H3 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: CHIMB55H & EESC805H

Environmental Science and Technology

Faculty List
A.G. Price, B.Sc. (Wales), M.Sc., Ph.D. (McGill), Associate Professor

SPECIALIST (JOINT) PROGRAM IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY
Supervisor of Students: A.G. Price (416-287-7327). Email: price@env.mcmaster.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 Technologist Diploma from Centennial College.

Program Admission
Students should request the program through ROSI. Enrolment is limited. Students may apply to the program after completing 4.0 FCEs (full credit equivalents), including 1.0 FCEs in Environmental Science, and 0.5 FCE in each of Chemistry, Biology, Mathematics and Physics

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

1. Introductory (3.5 FCE):
   a) EESC401H Introduction to Environmental Science and EESC461H Introduction to Planet Earth
   b) CHIMA101 Structure and Bonding and CHIMA11H Reactions and Mechanisms
   c) BGYA401H Introductory Biology: Part I and BGYA402H Introductory Biology: Part II
   d) STAB22H Statistics or PSICB57H Introduction to Scientific Computing

2. Fundamentals and Principles (3.5 FCE):
   a) BGYA401H Introduction to Classical Physics and MATA36H Calculus II
   b) CHIMB355H Principles of Cenmentation and MATA36H Calculus II for Physical Sciences
   c) 1.5 FCE of the following: EESC402H Principles of Geomorphology, EESC403H Principles of Climatology, EESC404H Principles of Hydrology, EESC405H Principles of Soil Science, EESC41H Earth History
   d) EESC41H Earth History EESC41H Earth History - The Cost to the Planet

3. Applied and Technical (9.5 FCE):
   (These courses are taught at the Centennial HSP Science and Technology Centre.)
   a) STER21H Organic Chemistry and Applications
   b) STER97H Analytical Chemistry and Applications
   c) IMCB91H Microbiology Basics
STE3404H Applied Environmental Microbiology
STE3318H Applied Analytical Instrumentation
b) STE3421H Water Quality Control*
STE3438H Engineering Equipment and Processes*
STE3681H Applied Hydrology and Spirits Management
STE3519H Hazardous Wastes and Modern Industrial Processes
c) STE3441H Environmental Legislation and Regulations*

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

4. Advanced (3.3 FCEs):

a) EESC303H Geographic Information Systems and Remote Sensing
EESC304H Biodiversity and Biogeography
EESC307H Groundwater
EESC118H The Great Lakes: A Lacustrine System
EESC302H Contaminant Hydrogeology
EESC311H Process Hydrology
EESC105H Cleaning up our mess: Remediation of Terrestrial and Aquatic Systems

French Environmental Science and Technology
Exclusion: CHMC161H
Note: CHMC161H may not be taken after CHMC164H. CHMC164H may not be taken after CHMC161H.
Prerequisite: CHMA111H & CHMB116H

STE3412H Applied Hydrology and Spirits Management

The movement of water to its natural state; techniques to measure and control the flow of surface and subsurface water. Current techniques to prevent contamination of subsurface water and surface water by chemical spills. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology.

Exclusion: EESC3103

Prequisite: EESC304H & STE424H

STE3143H Hazardous Wastes and Modern Industrial Processes

Each student will be assigned research on a different pollutant, which might be one of the following: heavy metal ions in water, mercury, aromatic solvents, polymeric resins, PCBs, halogenated solvents, organic acids, Pesticides. Limited to students enrolled in the Joint Specialist program in Environmental Science and Technology.

Prequisite: CHMA111H & CHMB121H

IMCB104H Microbiology Basics

(See the Industrial Microbiology section of this Calendar for a full description.)

French See the Languages and Linguistics section of this Calendar.
Geography

[B.A.]

Faculty List
J.R. Minar, B.A. (Queen's), M.A. (Peru), M.Sc., Ph.D. (Toronto), Professor
E. C. Bell, B.A., M. Phil. (London), Ph.D. (Toronto), Professor
M. F. Banerjee, B.A., Ph.D. (Shieldsfield), Associate Professor
M.W. Hunter, B.A. (Queen's), M.D.S. (Natal), Ph.D. (Berkeley), Assistant Professor
K. MacDonald, B.A., M.A. (Waterloo), Assistant Professor
M. Mahon, B.A. (Dalhousie), Ph.D. (London), Assistant Professor
T.A. I. Dewar, B.A. Hons (Oxon), M.A. (McMaster), M.A. (Oxon), Senior Lecturer

Discipline Representative/Supervisor of Studies: M. Banerje (416-287-7313)
Email: banerje@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 in which location, landscape, and spatial context shapes (or 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)
   GGR400H1 The Geography of Global Processes
   GGR401H1 Cities and Environments

2. Theory and concepts in Human Geography (at least 2 FCE from among the following)
   GGR300H1 Urban Geography
   GGR304H1 Planning in Canada
   GGR310H1 Real Estate and the City
   GGR311H1 Social Geography
   GGR215H1 Environmental Conservation and Sustainable Development
   GGR216H1 Geographies of Disease

3. Methods (1.0 FCE)
   GGR305H1 GIS and Empirical Reasoning
   ANT315H1 Quantitative Methods in Anthropology
   ECM309H1 Quantitative Methods in Economics
   ECM315H1 Quantitative Methods in Economics I
   GGR270H1 Introductory Analytical Methods
   GGR271H1 Social Research Methods
   PSYB307H Data Analysis in Psychology
   SOC306H1 Social Statistics
   STA221H1 Statistics 1

4. Applications (at least 2 FCE from among the following)
   GGR301H1 Supervised Readings in Human Geography
   GGR302H1 Population Geography
   GGR404H1 Urban Residential Geography
   GGR413H1 Urban Political Geography
   GGR414H1 Urban Transportation Policy Analysis
   GGR419H1 Spaces of Multiracial Critical Mixed Race Theory
   GGR420H1 Issues in Rural Development
   GGR427H1 Location and Spatial Development
   GGR429H1 Agriculture, Environment, and Development
   GGR331H1 Greater Toronto Area
   GGR418H1 Current Topics in Human Geography
   GGR451H1 Local Geographies of Globalization
   GGR464H1 Tourism, Environment and Development
   GGR307H1 Countries of Conservation
   GGR409H1 Feminist Geographies
   GGR410H1 Health and Sexuality

5. Core courses (1.0 FCE)
   GGR471H1 Introduction to Research in Human Geography

MINOR PROGRAM IN HUMAN GEOGRAPHY

Program Requirements
The requirements for this Program are four full-credit equivalents in Geography which must include one full-credit equivalent at the C-level or D-level.

MAJOR PROGRAM IN PHYSICAL AND HUMAN GEOGRAPHY

This is an interdisciplinary program leading to a B.A. degree in which students combine courses in human geography (GGR prefix) with courses in physical geography (GEO prefix). Students who combine the Major Program in Physical and Human Geography with another Major Program in Science (e.g. Environmental Science) are eligible for the Early Teacher Project.

Program Admission
EES courses require a background in physical sciences and mathematics. It is recommended that first year students take EES201H, EES202H and GGRA02H and at least one FCE from among [BGY401H & BGY402H], [CHMA10H & CHMA11H], [PHYA10H, [MAT105H & MAT101H] or [MAT135H & A36H1/A37H1].

Program Requirements
The Major Program in Physical and Human Geography requires the completion of a total of 8 full credit equivalents of which 4 FCE are to be EES courses, and 4 FCE are to be GEO courses. Among these 8 FCE, the student must include:

1. EES201H, EES202H, GGRA02H and GGRA03H
2. At least 1.5 FCE from among EEB202H, ESS200H, EES201H, EES209H, and ESS215H
3. At least 1.5 FCE from among GGR200H, GGR201H, GGR210H, GGR212H, GGR214H and GCRC27H1
4. At least 1.0 FCE at the C- or D-level from among GEO courses
5. At least 1.0 FCE at the C- or D-level from among GGR courses
6. At least one additional 0.5 FCE with a GEO prefix.
7. At least one additional 0.5 FCE with an EES prefix.
GGRB201H3 Geographies of Disease
Examines the geographical distribution of disease and the spatial processes in which diseases are embedded. Themes include spatial theories of health and disease and uneven development and health. Special attention will be given to the geographical dimension of the HIV pandemic.
Prerequisite: One of GGRA02H1, GGRA03H1 or HLT A01H1.
GGRB202H3 Population Geography
An examination of the geographical dimension to human population through the social dynamics of fertility, mortality and migration. This is not a quantitative course; emphasis will be given to qualitative methods. Themes include disease epidemics, international migration, reproductive technologies, and changing family structure.
Exclusion: GGRS20H1. Prerequisite: HLT A01H1 & [GGRA13H1 or HLT B01H1].
GGRB301H3 Urban Residential Geography
Household Production; household governance and contracting; household economic behaviour; housing demand, life course and housing careers; housing policy and markets; dwelling maintenance and neighbourhood; social mix and segregation.
Exclusion: GGRS37H1. Prerequisite: University-level half-credit in data analysis and one of ECM B01H1, ECM B02H1, GGRB03H1, GGRB06H1, GGRB07H1, GGRS37H1.
GGRC213H3 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 city.
Exclusion: GGRS39H1.
Prerequisite: GGRB05H1 & GGRB06H1.
GGRC180H3 Urban Transportation Policy Analysis
Demand forecasting; methodology of policy analysis; impacts on land values, urban form and commuting; congestion; transit and other transportation; and deregulation; environmental impacts and safety.
Exclusion: GGRS24H1. Prerequisite: University-level half-credit in data analysis and one of ECMB01H1, ECMB02H1, GGRB05H1, GGRB06H1, GGRB07H1, GGRS27H1.
GGRB183H3 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 underlying 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.
Limited enrolment: 15. Prerequisite: ANT B16H1 or GGRB12H1 or IDS B01H1 or SOC A01H1 or WSTA 01H1 or permission of instructor.
GGRB203H2 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: [TDSB09H1]. Prerequisite: GGRB131H & GGRB201H or [TDBSH1 & IDS B02H1].
GGRB273H Location and Spatial Development
Location of a firm; market formation and areas; agricultural location; urban spatial equilibrium; trade and spatial equilibrium; locational competition, equilibrium for an industry; trade and location.
Exclusion: GGRS72H1, GGRS720Y. Prerequisite: ECMB01H1 or ECMB02H1.
GGRC29H3 Agriculture, Environment and Development
Changing social, economic and environmental relations of agriculture in the late twentieth century. Includes: 
- expansion of global agrarianism, 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.
Pre-requisite: One of ANTC65H, ANTC64H, IDS80H1H, IDS80H2H, GGRD20H.

GGRC33H3 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.
Pre-requisite: GGRG30H1, GGRB50H5 & GGRD40H1.

GGRC41H3 Current Topics in Human Geography
Examination and discussion of current trends and issues in human geography, with particular emphasis on recent developments in concepts and methods. Specific content will vary from year to year. Seminar format with active student participation.
Limited enrolment: 30
Pre-requisites: [GGRB41H1 & GGRB40H1] or [GGRB40H1 & SOSE41H1] & one 3-scale full-credit in Human Geography.

GGRC49H3 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 globalization differently based on their unique circumstances of life and how they respond to the challenges and opportunities of a globalized world.
Limited enrolment: 20
Exclusion: GGRG41H1
Pre-requisites: GGRB50H1 or GGRB20H1 or ANTH168H1 or (ANTH168Y or IDS80H1H or permission of instructor).

GGRD48H3 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.
Pre-requisites: GGRB30H1 or ANTB01H1 & [IDS80H1H & IDS80B2H] or GGRD20H.

GGRC47H3 Introduction to Research in Human Geography
A seminar course that helps participants to understand the research process in human geography including developing a research question, situating the question in the literature, undertaking ethical review, exploring possible approaches to investigation, and suggesting likely outcomes for analysis. Participants will study the research of key authors in the field and develop their own research proposal for possible use in GGRD40H1 (for which this course serves as preparation).
Limited enrolment: 40
Exclusion: GGRG41H1
Pre-requisite: Open only to students in the Major Program in Human Geography who have already completed program requirements in (1) Introduction, (2) Theory and Concepts, (3) Methods.

GGRD10H3 Human Geography Case Study
A seminar on geographic research methods and their application to a selected research project. Students pursue their own original research project developed previously in GGRG47H, working under the supervision of an individual faculty member. All students present their research papers at an academic geography conference at the end of the session.
Pre-requisite: GGRG47H & open only to students in the Major Program in Human Geography who have already completed 15 FCEs and program requirements in (1) Introduction, (2) Theory and concepts, and (3) Methods.

GGRD58H3 Countryside Conservation
Problems and policies of countryside with special focus on the Greater Toronto area. Topics include social valuation of countryside, impacts of urban sprawl, land use and environmental change, urban contamination, farmland and green space protection, rural heritage conservation. Field research projects and workshops.
Limited enrolment: 25
Exclusion: [GGRG30H1] & [GGRG31H1] & [GGRG32H1 & GGRG41H3] & [GRRG32H1 or GGRG31H1 or [HELC40H1 & GGRG41H3].

Health Studies
(B.A./B.Sc.)
Faculty List
F. D. Burton, B. Sc., M.A., (N.Y.U.), Ph.D. (CUNY), Professor Emeritus
J. Bedd, B. A. (McGill), M. A. (Carleton), Professor
J. R. Miss, B. A. (Queen’s), M. A. (Per.), M. Sc., Ph.D. (Toronto), Professor
J. E. Brin, B. A. (Harvard), M. A. (University of Canterbury), Sc.D. (John Hopkins), Associate Professor
M. W. Hunter, B. A. (Syracuse), M. D. (Natal), Ph.D. (Berkeley), Assistant Professor
Superintendent of Studies: T.B.A.
Health is an extremely important area of study, both from the perspective of science and social and behavioural 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 behaviour 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-OPTERATIVE) PROGRAM IN HEALTH STUDIES
Superintendent of Studies: L. Chan. Email: chatr@utoronto.ca
Adviser: TBA
Co-op Contact: TBA E-mail: asokocep@utoronto.ca

Program Admission
This is a limited enrolment program, which must be completed in conjunction with another major as part of a 4-year degree. For information on admissions, fees, work terms, and standing in the program, please see the Co-operative Programs section of this Calendar.
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 4 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, HLTA01H, 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 HLTD01H, 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 3 FCEs from Section II, and 3 5 FCEs from Section III. No more than 4 FCEs can be counted from any single discipline for this program. Students should check carefully the prerequisites required for particular B- and C-level courses: note that ECMB301H, ECMB311H, SOCB401H, SOCB411H, and SOCB604H are limited enrolment courses, with first preference in these courses going to students enrolled in limited enrolment programs in ECM and SOC respectively.

Section I: Methodology
Students must choose one of the five groups of courses below:

- [ANTA401H & ANTA402H & ANTC351H] & ANTC60H or
- [BIOA301H & BIO302H & BIOB101H & BIOB111H] or
- [ECMA401H & ECMA402H & ECMB311H] or
- [PSY301H & PSY302H & PSYB101H & PSYB107H] or
- [SOC301H & SOCA401H & SOCB401H & SOCB411H & SOCB604H]

Note: STAR22H may be taken in place of ANTC351H, ECMB311H, PSYB107H & SOCB604H.

Section II: Core Courses
1.5 FCEs as follows:

- HLTA00H Plagues and Peoples
- IDS304H International Health Policy
- POLC251H The Politics of Canadian Health Policy

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:

- ANTH14H Biological Anthropology: Beginnings
- ANTH15H Contemporary Human Evolution and Variation
- ANTH191H Varieties of Social Life
- ANTH30H Culture, Politics and Globalization
- ANTH31H Health and the Urban Environment
- ANTH51H Medical Anthropology: Illness and Healing in Cultural Perspective
- ANTH52H Medical Anthropology: Biological and Demographic Perspectives
- ANTH53H The Anthropology of Food: Human Needs
- ANTH54H The Anthropology of Food: Consuming Passions
- ANTH61H The Body in Culture and Society
- ANTH62H Ethnobiomedicine
- BIOG31H Microbiology I: The Bacterial Cell
- BIOG32H Microbiology II: Perspectives on the Microbiology World
- BIOG25H Vertebrate Histology: Cells and Tissues
- BIOG26H Vertebrate Histology: Organs

The requirements for a B.Sc. Major are that at least five FCEs carry science credit. These include HLTA001H, HLTA002H, 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 as follows:

Section I

- HLTA001H Plagues and Peoples
- IDS304H International Health Policy
- POLC251H The Politics of Canadian Health Policy

Section II

2.5 full credits chosen from HLTA and/or from the following list (which must include at least 0.5 credit at the C- or D-level):

- ANTH14H Biological Anthropology: Beginnings
- ANTH15H Contemporary Human Evolution and Variation
- ANTH191H Varieties of Social Life
- ANTH20H Culture, Politics and Globalization
- ANTH301H Medical Anthropology: Illness and Healing in Cultural Perspective
- ANTH52H Medical Anthropology: Biological and Demographic Perspectives
- ANTH53H The Anthropology of Food: Human Needs
- ANTH54H The Anthropology of Food: Consuming Passions
- ANTH61H The Body in Culture and Society
- ANTH62H Ethnobiomedicine
- BIOG501H Foundations of Epidemiology
- EESA101H Human Health and the Environment
- HLTA001H Health, Aging and the Life Cycle
- HLTA002H Issues in Child Health and Development
- HLTA01H Directed Research on Health Services and Institutions
- HLTA02H Women and Health: Past and Present
- HLTA07H Directed Readings in Health Studies
- HLTA08H Health Research Seminar
- HLTD01H Directed Readings in Health Studies

The requirements for a B.Sc. Minor are that at least five FCEs carry science credit. These include HLTA001H, HLTA002H, 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.

MAJOR JOINT & JOINT CO-OBSERVATIONAL HEALTH INFORMATICS
The Major Program in Health Informatics has been withdrawn.
HLTA01H1 Plagues and Peoples

Considers the origins, antiquity and impact of plagues on human societies. The course will embrace cultural, evolutionary, epidemiological and ecological themes. Consideration will be given to historical, contemporary and newly-emerging infectious epidemics, with a view to understanding why "plagues" emerge and how their occurrence is intimately linked to human behaviour.

HLTB01H3 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: HLTA01H1 or [ANTAO1H & ANTA2O1H] or [BOYAO1H & BOYAO2H] or [PSYA01H & PSYA02H]

HLTB02H3 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: HLTA01H1 or [ANTAO1H & ANTA2O1H] or [BOYAO1H & BOYAO2H] or [PSYA01H & PSYA02H]

HLC09H3 Directed Research on Health Services and Institutions

Provides students with the opportunity to analyze work of health institutions. Students taking this course will arrange, in consultation with the instructor, to work (usually as a volunteer) in a health institution. They will write a major research paper related to some aspect of their experience. They will build on material learned in IDS804H1 and complement work in POLC53H1. Students must obtain consent from the Supervisor of Studies and supervising instructor before registering for this course.
Prerequisite: HLTA01H1 & IDS804H1 & permission of the instructor. POLC53H1 is recommended.

HLTC02H1 Women and Health: Past and Present

This course uses historical, anthropological, philosophical approaches to further understand the relationships between women, health and society. Women's interactions with the health sector will be examined. Particular attention will be devoted to the social and gender construction of disease and the politics of women's health.
Prerequisite: ANTAS0H1 or IDS804H1 or B-level course on women's studies/gender

HLD01H3 Directed Readings in Health Studies

For upper level students whose interests are not covered in one of the other courses normally offered. Courses will normally only be available to students in their final year of study. Students must obtain consent from the Supervisor of Studies and supervising instructor before registering for this course.
Prerequisite: HLTA01H1 & IDS804H1 & POLC53H1 & permission of the instructor

HLTD02H3 Health Research Seminar

Provides senior students with the opportunity to apply methodological skills to a health research problem. Students will give presentations of their research proposals, and there may be a guest seminar on health research projects.
Prerequisite: Students must have completed 6 PCE 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

History (B.A.)

Faculty List
J.S. Moir, M.A., Ph.D. (Toronto), D.D. (Presbyterian College, Montreal), Professor Emeritus
E.W. Dowler, A.M. (Harvard), Ph.D. (London School of Economics), Professor
M. Ekins, B.A. (Toronto), B.Phil. (Oxon), Professor Emeritus
M. Gervers, A.B. (Princeton), M.A. (Notre Dame), Ph.D. (Toronto), Professor
E.B. Robertson, M.A. (McGill), Ph.D. (Toronto), Professor
F. Iacovetta, M.A., Ph.D. (York, Canada), Associate Professor
S.J. Rockel, M.A., Ph.D. (Toronto), Associate Professor
D.E. Bender, M.A., Ph.D. (New York), Assistant Professor
E. Rezvani, M.A., Ph.D. (Toronto), Assistant Professor
R.A. Kamal, M.A., Ph.D. (Pennsylvania), Assistant Professor
J. Schendel, M.A. (Ohio State), Ph.D. (Heidelberg), Assistant Professor

Discipline Representative: S. Rockel (416-287-7145) Email: rockel@utsc.utoronto.ca

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 endeavor. History courses, therefore, can play a part in a number of interdisciplinary programs and can serve as an adjunct to courses in political philosophy, literature, economics, sociology, and anthropology. History can also be usefully combined with language study.

The History curriculum combines a variety of approaches and teaching in order to satisfy a number of purposes. HISA01H1 and HISA02H1 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 (HISH01H1-91) 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. These courses are 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.utsc.utoronto.ca/~hands/History/studyguide/index.html

Note: Students are advised to consult the prerequisites for C-level and D-level courses when planning their individual Programs.

Nota: 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

Supervisor of Studies: F. Iacovetta (416-287-7152) Email: iacovetta@utsc.utoronto.ca

Program Requirements

1. Number of Credits
   Students must complete at least ten full credits in History. Three ten must include HISA01H1, HISA02H1, HISH010H 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 Credits
   Of the ten credits, at least two full credits must deal with the period prior to 1815.
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3. Areas of Study
Students must include:
At least one full credit in Canadian History, and
At least one half credit from each of three 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
Supervisor of Studies: F. Iacovetta (416-287-7152) Email: iacovetta@usc.ucscronto.ca

Program Requirements
1. Number of Credits
Students must complete seven full credits in History. These seven must include HIS301H, HIS302H and three upper-level full credits (C-/D-level courses at UTSC or 300/400-level courses at the St. George Campus or at UTSC).

2. Pre-1815 Credits
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 half credit from each of three 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
Supervisor of Studies: F. Iacovetta (416-287-7152) Email: iacovetta@usc.ucronto.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.

HIS1A0H1 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 commonality of human experience in the twentieth century. Major themes include imperialism, war, revolution, totalitarian ideologies, social, economic, and cultural change, nationalism.
Exclusion: HIS1A0Y
Prerequisite: HIS1A0H

HIS1B0H1 History and Evidence
An examination of the nature and uses of evidence in historical and related studies. Histories use a wide variety of sources as evidence for meaningful statements about the past. This course explores what it means by history and how historians evaluate sources and test their reliability as historical evidence.

HIS2B0H1 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.

HIS2B2H1 Victorian Britain
An introduction to Victorian Britain offering a broad survey of economic, social, and political trends. Central themes include the industrial revolution and worker movements, popular protest and state responses, women and family, social welfare, Irish nationalism, and the urban poor.
European Area
Exclusion: HIS3B0Y, HIS339H
Prerequisite: HIS349H

HIS2B2H1 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: HIS3B0Y, HIS339H
Prerequisite: HIS349H

HIS2B3H4 American History to the Civil War
A survey of American history from contact between Indians and Europeans up through the Civil War. Topics include the emergence of colonial societies, the rise and destruction of racial slavery, revolution and republic-making, economic and social change in the new nation; western conquest; and the republic's collapse into civil war.
Exclusion: HIS2B1Y, HIS271Y

HIS3B1H4 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: HIS3B0Y, HIS271Y
Prerequisite: HIS349H

HIS4B0H4 Canadian History to 1865
The history of Canada from the first European contacts to the late 19th century. Topics include the earliest European contacts, New France, the British Conquest, immigration and settlement, Confederation, the constitution, and the early development of Canada as a transcontinental country.
Canadian Area
Exclusion: HIS3B0Y, HIS326Y, HIS327Y

HIS4B1H4 Canadian History since 1865
Topics include cultural conflict, the optimum 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: HIS3B0Y, HIS326Y, HIS327Y
Prerequisite: None, but HIS348H highly recommended.

HIS5B0H4 Modern Southeast Asia I: 1785-1900
An introduction to the political, socioeconomic, and cultural history of Southeast Asia under the last indigenous dynasties and during the period of colonial conquest. Topics will include processes of indigenous state formation, the emergence of colonial regimes, and the creation of export-oriented economies.
Exclusion: HIS544H
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<th>Course Code</th>
<th>Credits</th>
<th>Prerequisites</th>
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<td>HSB856H3 Modern Southeast Asia II: 1900-Present</td>
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<td>(HSB529H4, HSB533H4)</td>
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<td>HSB858H3 Europe in the Early Middle Ages (305-1053)</td>
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<td>HSB859H3 Europe in the High and Late Middle Ages (1052-1492)</td>
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<td>(HSB600H4, HSB622H4)</td>
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<td>HSB860H3 Early Modern Europe: 1450-1600</td>
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<tr>
<td>HSB861H3 Early Modern Europe II: 1600-1800</td>
<td>HSB861H3</td>
<td>3</td>
<td>(HSB600H4, HSB622H4)</td>
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<td>HSC144H3 Edible History: History of Global Foodways</td>
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**HSB856H3**

- **Modern Southeast Asia II: 1900-Present**
- **Course Code:** HSB856H3
- **Credits:** 3
- **Prerequisites:** HSB529H4, HSB533H4
- **Exclusions:** (HSB331H4)

**HSB858H3**

- **Europe in the Early Middle Ages (305-1053)**
- **Course Code:** HSB858H3
- **Credits:** 3
- **Prerequisites:** HSB600H4, HSB622H4
- **Exclusions:** HSB600H4

**HSB859H3**

- **Europe in the High and Late Middle Ages (1052-1492)**
- **Course Code:** HSB859H3
- **Credits:** 3
- **Prerequisites:** HSB600H4, HSB622H4
- **Exclusions:** HSB600H4

**HSB860H3**

- **Early Modern Europe: 1450-1600**
- **Course Code:** HSB860H3
- **Credits:** 3
- **Prerequisites:** HSB600H4, HSB622H4
- **Exclusions:** HSB600H4

**HSB861H3**

- **Early Modern Europe II: 1600-1800**
- **Course Code:** HSB861H3
- **Credits:** 3
- **Prerequisites:** HSB600H4, HSB622H4
- **Exclusions:** HSB600H4

**HSC144H3**

- **Edible History: History of Global Foodways**
- **Course Code:** HSC144H3
- **Credits:** 3
- **Prerequisites:** HSB600H4, HSB622H4
- **Exclusions:** HSB600H4
HISC323H The Emergence of Modern America, 1877-1932
Overview of the political and social developments that produced the modern United States in the half-century after 1877. Topics include urbanization, immigration, industrialization, the rise of big business and of mass culture, imperialism, the evolution of the American colour line, and how Americans used politics to grapple with these changes.
American Area
Limited enrollment: 40
Exclusion: HIS321H
Prerequisite: HIS321H

HISC332H Modern American Political Culture
This course examines the relationship between culture and politics in modern American history. It considers culture as a means through which Americans express political desires. Politics, similarly, can be understood as a forum for cultural expression. Topics include imperialism, immigration and migration, the Cold War, and the "culture wars".
American Area
Limited enrollment: 40
Prerequisite: [HIS309H & HIS311H] or permission of instructor.

HISC361H Peoples in Motion: Immigrants and Migrants in U.S. History
Overview of the waves of immigration and internal migration that have shaped America from the colonial period to the present. Topics include colonization and westward migration, immigrants in the industrial and contemporary era, nativism, xenophobia, and ethnic and religious pluralism.

HISC494H Atlantic Canada to 1815
An intensive study of the region: the First Nations, the Acadians, the coming of British settlers, the development of each of the colonies. Pre-1815 course.
Canadian Area
Exclusion: [HISC467Y, HIS468H]
Prerequisite: [HISC309Y or [HIS301H & HISC311H]

HISC494H Atlantic Canada since 1815
An intensive study of the region: Confederation and the Maritime Provinces after Confederation; Newfoundland from earliest European contact to its entry into Confederation.
Canadian Area
Exclusion: [HISC366Y, HIS468H]
Prerequisite: [HISC309Y or HIS308H & HISC311H & HISC411H]

HISC446H Quebec Since 1759
An introduction to the history of Quebec since 1759. Themes include the establishment of the French language and culture, the impact of the two world wars, and the Quiet Revolution.
Canadian Area
Exclusion: [HISC309Y, HIS311H]
Prerequisite: [HISC309H & HIS311H] or HIS309Y

HISC454H Immigration and Race Relations in Canadian History
This course examines aspects of the history of immigrants and race relations in Canada, particularly for the period 1840s-1960s. It covers various immigrant and racialized groups and explores how race, gender, and ethnicity shaped experiences and social relations.
Canadian Area
Prerequisite: Any four FCEs
HISC7843 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: HIS325H, HIS325Y
Prerequisite: HIS800Y or HIS8072H or any 2.5 FCE in HIS

HISC7943 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 breakdown to the breakup of the USSR.
European Area
Exclusion: HIS351H, HIS351Y
Prerequisite: HIS800Y or HIS8072H or any 2.5 FCE in HIS

HISC8548 Early Modern France, 1500-1715
This course examines themes in Early Modern French history (ca. 1500-1715). Specific topics include the demographic change, the role played by social classes, popular culture and popular revolt, the wanton and the family, the development of French absolutism, military change, the Wars of Religion, witchcraft, and the possibilities for Protestant-Catholic coexistence.
Pre-1815 course
European Area
Limited enrolment: 40
Prerequisite: Any four FCEs

HISC9043 Modern Germany I: The Nineteenth Century
German history from the end of the Holy Roman Empire to the outbreak of the First World War. The rise of Prussia, the impact of political and industrial revolution, the unification of modern Germany, the imperial age, science, technology, art and music are among the themes pursued.
European Area
Exclusion: HIS317H, HIS317Y, HIS330H
Prerequisite: HIS800H or HIS809Y

HISC9143 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: HIS317H, HIS317Y
Prerequisite: HIS809H or HIS809Y

HISD01H3 Independent Studies: Senior Research Project
This option is available in rare and exceptional circumstances to students who have demonstrated a high level of academic maturity and competence. Qualified students will have the opportunity to investigate an historical field which is of common interest to both student and supervisor.
History Faculty
Exclusion: HIS497Y, HIS498H, HIS499H, HIS499Y
Prerequisite: At least 15 FCEs and completion of the requirements for the Major Program in History; written permission must be obtained from the instructor in the previous session.

HISD03H3 Thinking of Diversity: Perspectives on American Pluralism
A seminar exploring the evolution of American thinking about diversity - ethnic, religious, and racial - from the colonial era defenses of religious toleration to today's multiculturalism. Participants will consider pluralism in relation to competing ideologies, such as nativism, and compare American pluralisms to formulations arrived at elsewhere, including Canada.
American Area
Limited enrolment: 15
Prerequisite: HIS830H1 or HIS831H or permission of instructor

HISD04H3 Topics in American Social and Cultural History
This fourth-year seminar is funded by the Canada Research Chair in Urban History and is taught by an advanced graduate student in American history. The course, with topics varying from year to year will focus on major themes in American social and cultural history, such as, women's history, labour history, and the history of slavery and emancipation.
American Area
Limited enrolment: 15
Prerequisite: HIS830H1 or HIS831H

HISD05H3 The Politics of American Immigration, 1885-1950
A seminar that puts major contemporary U.S. debates over immigration in historical context, tracing the roots of such longstanding controversies as those over immigration restriction, naturalization and citizenship, immigrant political activity, bilingual education and "English only" movements, and assimilation and multiculturalism. Extensive reading and student presentations are required.
American Area
Limited enrolment: 15
Prerequisite: HIS831H

HISD3613 From New Deal to New Right: American Politics since 1933
The most striking developments in U.S. politics in the last half-century has been the rebirth and rise to dominance of conservatism. This seminar examines the roots of today's conservative ascendency, tracing the rise and fall of New Deal liberalism and the subsequent rise of the New Right.
American Area
Limited enrolment: 15
Prerequisite: HIS831H

HISD380H3 Topics in American Urban History: New York City
An examination of the rise of American cities and the problems associated with urban life through the lens of the nation's largest and most diverse city, from its founding to the present day. Topics will include: Native Americans, colonial trade, industrialization, social and political movements, urban policy, suburbanization, and immigration.
American Area
Limited enrolment: 15
Prerequisite: HIS830H1 or HIS831H or permission of instructor

HISD463H3 Selected Topics in Canadian Women's History
Weekly discussions of assigned readings.
The course covers a broad chronological sweep but also highlights certain themes, including race and gender relations, working women and family economics, sexuality, and women and the courts. We will also explore topics in gender history, including masculinity studies and gay history.
Canadian Area
Limited enrolment: 15
Prerequisite: HIS809Y or any credit in Canadian History

HISD473H3 Cold War Canada in Comparative Contexts
A seminar on Cold War Canada that focuses on the early post-war era and examines Canadian events, developments, experience within a comparative North American context. Weekly readings are organized around a particular theme or themes, including the national insecurity state, reds, spies, and civil liberties, suburbs, and sexuality.
Canadian Area
Limited enrolment: 15
Prerequisite: HIS809Y or HIS814H and at least one other B- or C-level credit in History
HIDS505H 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 frontier, the mineral revolution and the South African War. Extensive reading and student presentations are required.
African, Asian and Latin American Area
Limited enrolment: 15
Exclusion: (HIDS91Y) or (HIS205W) or any two Modern History credits

HIDS593H 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: (HIDS91Y) or (HIS205W) or any two Modern History credits

HIDS200H 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 migrations, commercialization, religious change, colonial conquest, rationalism, economic development and conflict, will be investigated. Student presentations are required.
African, Asian and Latin American area.
Limited enrolment: 15
Exclusion: (HIDS91Y) or (HIDS91W) or (HIS205W) or any two Modern History credits.

HIDS543H State Formation in Pre-Colonial Southeast Asia, c. 1750-1870
The seminar will examine the structural changes in Southeast Asian politics during the last century, before high imperialism. 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 imperialist 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.

HIDS539H The Crusades: I
Modern interpretations of the Crusades will be investigated in the broad context of Western expansion into the Middle East (1099-1249), 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
Prerequisite: (HIS300W) or ([HIS60H & HIS60H] or [HIS60H & HIS60W] or [HIS60W & HIS60W])

HIDS549H 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
Prerequisite: (HIS300W) or ([HIS60H & HIS60H] or [HIS60W & HIS60W])

HIDS593H France and New France, 1500-1763
This seminar involves an in-depth study of the history of New France within the framework of the transplation of a European society abroad. Under this comparative France/New France rubric, specific topics will include French-American relations, government institutions, Jesuit missionary efforts, social structures, as well as gender and family issues.
Pre-1815 course
European Area
Limited enrolment: 15
Prerequisite: One C-level credit in European History.

CLAB593H The Mediterranean World I: Greece
CLAB595H The Mediterranean World II: Rome
CLAB597H Army and Empire in the Roman World
CLAC4101H Slavery in the Roman Economy
These courses may be used to fulfill History Program requirements. (See the Classical 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., (Western), 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.uts.utoronto.ca/200/ahunds/Humanities/studyguide/index.htm

CO-OPERATIVE PROGRAM IN HUMANITIES

Supervisor of Studies:
Until June 20, 2006: L. Carney (416-287-7117), Email: carney@uts.utoronto.ca
From July 1, 2006: TDA

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 (28-credit) B.A. degree plus two work terms. For information on fees, work terms, and studying in the program, please see the Co-operative Programs section of this Calendar.
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. (1.5 full credit equivalents)
   1.5 FCE in English, including:
   either
   - ENG303H1 Critical Thinking About Narrative
   or
   - ENG304H1 Critical Thinking About Poetry
   or
   - ENG305H1 Critical Writing about Literature
   or
   - LGA178H1 Current Approaches to the Academic Writing Process I: A Course for Non-Native Speakers of English
   or
   - LGA198H1 Writing Practice: A Course for Non-Native Speakers of English
   and
   - PHIL353H1 The Art of Thinking

2. (1.0 full credit equivalents)
   HIS360H1 History and Evidence

3. (0.5 full credit equivalents)
   VPAAB06H1 Visual and Performing Arts in the Digital Age
   or
   CSMC03H1 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
Psychologicals

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 descriptions 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 selection.

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 2.0 full credit equivalents from among the Co-op core courses and at least 4.5 full credit equivalents towards the requirement of the Specialist Program or the Humanities Major Program(s) in which they are enrolled. Students are encouraged to include Requirement 3 (VPAAB06H1 or CSMC03H1) among the core courses completed before the first work term. 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 towards 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. HUMB30H1 Religious Traditions of the West
2. HUMB20H1 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:
   - ANTB50H1 Conceptualizing Religion
   - ANTB54H1 Peoples of the Middle East
   - ANT353H1 Ritual and Religious Action
   - ANT355H1 Muslim Societies
   - CLA303H1 Classical Mythology I: Myths of the Gods
   - CLA304H1 Classical Mythology II: Myths of the Heroes
   - ENGB42H1 The Bible and Literature I
   - ENGB41H1 The Bible and Literature II
   - HIS64H1 The Crusades: I
   - HIS64H1 The Crusades: II
   - HUMC10H1 The Five Books of Moses
   - HUMC11H1 Religion and Language
   - HUMC20H1 Religious Pluralism
   - HUMC40H1 The Gospels
   - HUMC16H1 Hindu Epic
   - HUMC17H1 The Qur'an
   - HUMC43H1 Selected Topics in Western Religions
   - HUMC44H1 Selected Topics in Eastern Religions
   - PHIL40H1 Introduction to Chinese Philosophy
   - PHIL42H1 Introduction to Buddhist Philosophy
   - PHIL46H1 The Names of Buddhist Ethics
   - PHIL42H2 Confucianism
SOC212H Sociology of Religion
(VPHB55H) Religion and the Arts I
(VPHB60H) Religion and the Arts II
VPHB64H Representing Religions: The Rise of States, World Religions, and Patrons
VPHB67H Buddhist Arts and Cultures
VPHC39H Religion in the Arts: Hinduism and Buddhist
VPHC36H Religion in the Arts: Judeo-Christian Traditions
VPHC50H Topics in Buddhist Art
VPHC59H Scholars and Aristocracy in Buddhist Art: The Lirnirat and the Glineri
VPHM37H Music in Religion and Ritual

HUMB039H Religious Traditions of the West
An introductory study of Judaism, Christianity, and Islam.
Prerequisite: HUMB031H & HUMB04H

HUMB04H Religious Traditions of the East
An introductory study of the religious traditions of India, China and Japan.
Prerequisite: HUMB04H

HUMC10H 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: HUMB03H

HUMC111H 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 language, the translation of scripture into vernacular languages, and the use of scripture in popular literature.
Prerequisite: HUMB031H & HUMB04H

HUMC122H Religious Pluralism
This course will examine the phenomenon of religious pluralism in the modern world, with an emphasis on how the interaction of national, cultural, ethnic, social and religious heritages and ideologies play out in everyday life.
Prerequisite: HUMB031H & HUMB04H

HUMC141H 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: RELG241Y
Prerequisite: HUMB03H

HUMC161H Hindu Epic
An exploration of portions of the Ramayana, the Mahabharata, the Bhagavad Gita, and related texts, in order to develop an understanding of this segment of the Hindu textual tradition. The history, content, and contemporary religious significance of these texts will be examined.
Prerequisite: HUMB04H or RELG101Y

HUMC171H The Qur'an
An exploration of the origin, context, interpretation, and significance of the Qur'an, with a particular emphasis on its relationship to the scriptural tradition of the Abrahamic faiths. No knowledge of Arabic is required.
Exclusion: RELG211L, NMCC21H
Prerequisite: HUMB03H or RELG101Y

HUMC32H Selected Topics in Western Religion
Intensive study of selected topics in Western religions that will vary with each offering of the course.
Prerequisite: HUMB03H

HUMC44H3 Selected Topics in Eastern Religions
Intensive study of selected topics in Eastern religions that will vary with each offering of the course.
Prerequisite: HUMB04H

HUMD91H
HUMD92H
HUMD93H 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 approach.
Prerequisite: These B-level full-credit equivalents in the Department of Humanities.

Industrial Microbiology

SPECIALIST [Joint] Program in Industrial Microbiology
Supervisor: R. Fulgher (416-287-7221) Email: fulgher@uottawa.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 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 enrollment. For application procedures, see the Joint Programs with Centennial College section of this Calendar.

Program Requirements
The program requires the completion of 15.5 full credit equivalents (FCEs) as follows. Please note that 25 FCEs are required to complete the Honours degree.
Courses with the designators 1MC and STE are taught at Centennial's campus.

1. 3.5 FCE:
BGI101H Introductory Biology: Part I
BGI102H Introductory Biology: Part II
CHMA1H Introductory Chemistry I: Structure and Bonding
CHMA11H Introductory Chemistry II: Reactions and Mechanisms
[MCAT3H Calculus I (grade 12)]
[or] [MCAT31H Calculus I (OAC)]
[MCAT35H Calculus II for Biological Sciences]
[or] [MCAT36H Calculus II for Physical Sciences]
[STA122H Statistics]
[or] [PSCB57H] Introduction to Scientific Computing

2. 2.5 FCE:
BYYB108H Cell Biology
BYYB11H Aspects of Cellular and Genetic Processes
CHMB41H Organic Chemistry I
CHMB42H Organic Chemistry II

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 'F' and 'Y' courses and by 1 December for 'S' courses. If the proposal is approved, two faculty members from relevant disciplines will supervise and evaluate the work.

Prerequisite: These B-level full-credit equivalents in the Department of Humanities.
3. 3.0 FCE:
IMCB01H Microbiology Basics
IMCB02H Microbial Techniques
IMCB03H Lab Instrumentation
IMCB04H Food Microbiology
IMCB05H Microbiology Project

STEM07H 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:
BGY8360H Mammalian Physiology I
BGY8361H Plant Physiology
BGY8559H Ecology
BGYC15H Genetics
EESB16H Feeding Humans - the Cost to the Planet

6. 2.0 FCE:
IMCC03H Advanced Microbiology Project
IMCC04H Microbial Genetics
IMCC05H Biochemistry and Applications II
IMCC06H Environmental Microbiology

7. 2.0 FCE from the following list:
ANTH548 Health and the Urban Environment
BGYC37H Advanced Plant Physiology
BOYC65H Environmental Toxicology
BGYD20H Supervised Study in Biology
BGYD21H Molecular Biology Laboratory: Hosts, Vectors and Cloning
BGYD37H Biology of Plant Stress
EESC301 Microbial Biogeochemistry

EESC51H Cleaning up our Mose: Remediation of Terrestrial and Aquatic Environments

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

IMCB09H 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, MBY37H, MGY37H
Prerequisite: [BGYA01H & BGYA02H] or (BGYA01Y)

IMCB02H Microbial Techniques
Practical applications of the concepts covered in IMCB01H. Limited to students in the Joint Program in Industrial Microbiology.
Exclusion: BGYC17H, MBY37H, MGY37H
Prerequisite: [BGYA01H & BGYA02H] or (BGYA01Y)
Corerequisite: IMCB01H

IMCB03H 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 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: [CHMA10H & CHMA11H] or (CHMA01Y)

IMCB04H Food Microbiology
An introduction through theory, lab, and field work to micro-organisms 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 Critical Control Point Programs (HACCP). Limited to students in the Joint Program in Industrial Microbiology.
Prerequisite: IMCB01H

IMCB05H 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: IMCB01H & IMCB02H

IMCB06H Pharmaceutical Microbiology
Quality control and quality assurance as they apply to the pharmaceutical industry, based on current government regulations. Students acquire knowledge of microbial production and assay methods, enumerate and identify microorganisms from commercial products, and evaluate the anti-microbial effectiveness of disinfectants, preservatives, and antibiotics. Limited to students in the Joint Program in Industrial Microbiology.
Prerequisite: IMCB04H

IMCB07H 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

IMCB08H Biochemistry and Applications I
Theory and practical applications of Biochemistry. Theory focuses on the most important molecules found in living systems. Practical applications include the preparation of soap, testing of food oils, identification of sugars, paper chromatography of amino acid, titration of amino acids, and isolation of prostaglandins from milk. Limited to students in the Joint Program in Industrial Microbiology.
Exclusion: BGYC12H, BGYC31H, (ICHE32Y)
Prerequisite: CHMB42H

IMCB09H 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: IMCB05H & IMCB06H

IMCB10H Microbial Genetics
Basic genetics using micro-organisms, 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: IMCB08H

IMCB11H 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 micro-organisms and higher living forms. Limited to students in the Joint Program in Industrial Microbiology.
Exclusion: BGYC32H, BGYC33H, (ICHE32Y)
Prerequisite: IMCB08H
International Development Studies (B.A./B.Sc.)

Faculty List
A. Berry, B.A. (Western), M.A. (Yale), Ph.D. (Princeton), Professor Emeritus
J. Bodi, B.A. (McGill), M.A. (Calgary), Ph.D. (Washington, D.C.), Associate Professor
P.C. Hoang, B.A. (National Chiao-tung University), M.A. (Chinese Cultural University), M.A. (UCLA), Ph.D. (UCLA), Professor
E. C. Relph, B.A. (London), Ph.D. (Toronto), Professor
J. Tychitian, B.A., M.A., Ph.D. (Toronto), Professor
S. Barnett, B.A. (Toronto), M.A. (McMaster), M.A., Ph.D. (Virginia), Associate Professor
A. E. Bire, B.A. (Harvard), M.A. (University of Canterbury), Sc.D (Johns Hopkins), Associate Professor
R.R. Falber, B.Sc., M.Sc., (Toronto), Ph.D. (Carleton), Associate Professor
P. Kingston, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor
A.G. Price, B.Sc., (Waterloo), M.Sc., Ph.D. (McGill), Associate Professor
S.J. Rockel, M.A., Ph.D. (Toronto), Associate Professor
N. ten Kortenaar, M.A., Ph.D. (Toronto), Associate Professor
G. Fraser, M.A. (Toronto), Ph.D. (Yale), Assistant Professor
K. MacDonald, B.A., M.A. (Wilfred Laurier), Ph.D. (Waterloo), Assistant Professor
C. Neerl, B.A., M.A. (Laval), Ph.D. (Genova), Assistant Professor

SPECIALIST (CO-OPERATIVE) PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (B.A./B.Sc.)

Supervisor of Studies: P. Kingston (416-287-7305) E-mail: kingston@chas.utoronto.ca
Co-op Co-ordinator: C. Moffatt (416-287-7113) E-mail: moffat@issc.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 environmental 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, multinational 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.

Enrollment 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 must include 10 credits from sections A and B, of which at least 6.5 must be from Section A (plus regional and language requirements and the completion of the Introduction to 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 credits of 0.5 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. These are mandatory sessions on cross-cultural understanding, health and safety issues on placement, researching for the IDS001Y thesis, and other key topics. A weekend retreat with the fifth year (who have returned from placement) provides the opportunity for sharing of first-hand experience.
B. Advanced Options: at least five full credits chosen from either I or II below:

Note: 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.

I. Social Science Stream:

Five full credits from:

ANTB05H1 African Cultures and Societies I: Survey
ANTB10H1 Political Ecology
ANTB19H1 Varieties of Social Life
ANTR08H1 Culture, Politics and Globalization
ANTR04H1 Peoples of the Middle East: An Introduction
ANTC04H1 African Cultures and Societies II: Case Studies
ANTC10H1 Anthropological Perspectives on Development (if not taken in the 'core')
ANTC14H1 Feminism and Anthropology
ANTC15H1 Genders and Sexualities
ANTC19H1 Producing People and Things: Economics and Social Life
ANTC25H1 Muslim Societies
ANTC26H1 Fieldwork in Social and Cultural Anthropology
ANTC26H1 Medical Anthropology: Illness and Healing in Cultural Perspective
ANTC26H1 Medical Anthropology II: Biological and Demographic Perspectives
ANTC26H1 The Anthropology of Food: Human Needs
ANTC26H1 The Anthropology of Food: Consuming Passions
DTSB01H1 Introduction to Diaspora and Transnational Studies I
DTSB02H1 Introduction to Diaspora and Transnational Studies II
ECMB10H1 Price Theory
ECMB20H3 Macroeconomic Theory and Policy
ECOC20Y1 International Economic Institutions and Policy
ECMC16H1 Economic Development
ECMC17H1 Development Policy
ENGR17H1 Contemporary Literature from the Caribbean
ENGR19H1 Contemporary Literature from South Asia
GCRB28H1 Geographies of Disease
GCRC20H1 Issues in Rural Development
GCRC29H1 Agricultural, Environment and Development
GCRS51H1 Local Geographies of Globalization
GRCU61H1 Tourism, Environment and Development
HISA01H1 The Twentieth Century World I (exclusion POLB01H1 & POLB11H1)
HISA02H1 The Twentieth Century World II (exclusion POLB01H1 & POLB11H1)
HISC20H1 Africa in the Nineteenth Century
HISC31H1 Twentieth Century Africa
HISC32H1 A Social History of Ethiopia
HISC35H1 Topics in Asian History
HIDS01H1 Southern Africa: Colonial Rule, Apartheid, and Liberation
HIDS21H1 East African Societies in Transition
HLC028H1 Women and Health: Past and Present
IDS60H1 International Health Policy Analysis
IDS60H1 Economics of Small Enterprise and Micro-credit
IDS65H1 Ethics of Development
IDS66H1 Directed Research on Canadian Institutions and International Development
IDS67H1 Project Management II
IDS68H1 Topics in International Development Studies
IDS69H1 Issues in International Health
(IV1320Y) National & International Environmental Policy Making
ISTRO1H1 International Studies and International Communications
PHEB02H1 Ethics and International Affairs
PHEC34H1 Pastoralist Studies in Philosophy
International Development Studies

POL/380H1 Introduction to International Relations (exclusion HISA30Y1)
POL/381H1 International Conflict and Conflict Management (exclusion HISA30Y1)
POL/378H1 Political Analysis I
POL/381H1 The New International Agenda
POL/360H1 Development Studies: Political and Historical Perspectives (if not taken in the core)
POL/319H1 Latin America: Dictatorship and Democracy
POL/325H1 International Political Economy of Trade
POL/360H1 Politics and Society in the Middle East I
POL/378H1 Politics and Society in the Middle East II
POL/360H1 Latin America: Politics of the Depossessed
POL/301Y Government & Politics in Africa
POL/378H1 Political Analysis II
POL/388H1 Exploring the New International Agenda
POL/398H1 Public Policy and Human Development in the Global South
POL/394H1 Selected Topics on Developing Areas
POL/445Y Canada and the Third World
SOCB/480H1 Quantitative Methods in Social Research
SOCB/481H1 Qualitative Methods in Social Research
SOSC/238H1 Comparative Ethnic and Race Relations
SOCI/348H1 Globalization: Causes, Consequences and Critiques
WSTC/380H1 Women and Development (if not taken in the core)
WSTC/111H Applied Study in Women and Development

Environmental Stream
Five full-credit courses:
- ANTC/23H1 Medical Anthropology II: Biological and Demographic Perspectives
- BGYA/01H1 Introductory Biology: Part I
- BGYA/02H1 Introductory Biology: Part II
- BGYB/51H1 Evolutionary Biology
- BGYC/52H1 Ecology and Evolutionary Biology Laboratory
- BGYC/53H1 Ecology Field Course
- BGYD/30H1 Ecological Special Topic
- BGYC/58H1 Foundations of Epistemology
- BGYC/59H1 Marine Biology
- BGYC/58H1 Advanced Population Ecology
- BGYC/59H1 Conservation Ecology
- BGYC/59H1 Ecological Special Topic
- BGYC/59H1 Environmental Toxicology
- EEB/80H1 Principles of Geomorphology
- EEB/80H1 Principles of Climatology
- EEB/80H1 Principles of Hydrology (if not taken in the core)
- EEB/80H1 Principles of Soil Science (if not taken in the core)
- EEB/80H1 Bioclimatology - Environmental Implications
- EEB/80H1 Feeding Humans - The Cost to the Planet
- EESC/30H1 Geographic Information Systems and Remote Sensing
- EESC/30H1 Biodiversity and Biogeography
- EESC/30H1 Groundwater
- EESC/31H1 Environmental Impact Assessment and Auditing
- EESC/31H1 Field Camp I
- EESC/06H1 Climate Change Impact Assessment
- EESC/11H1 Process Hydrology
- EESC/15H1 Cleaning up our Mess: Remediation of Terrestrial and Aquatic Environments
- GGRA/10H1 Cultural Biogeography
- GGRA/33H1 Environmental Impact Assessment
- ISOC/24H1 Directed Readings on Canadian Institutions and International Development
- ZOO/35H1 Environmental Factors

C. Regional and Language Options:
At least two full-credits chosen from credits dealing with a designated development region. One of these full-credits should be a language appropriate for work in developing countries. Students with a functional knowledge of an appropriate language may substitute non-language regional credits. Students must obtain approval of their choice from the Supervisor of Studies.

D. Required:
- IDS/20Y1 International Development Studies: Advanced Seminar
- Any five and one-half credits which satisfy the degree requirements.

MAJOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (B.A./B.SC.)
Supervisor: P. Kingston (416-287-7305). E-mail: kingston@chass.utoronto.ca

Program Requirements
Students must complete eight full-credits for the Major Program in International Development Studies. This includes all courses in Section I and four and one-half credits from Section II. In Section II students must take one full-credit from at least two of the three lists of courses provided. In choosing courses, students must pay careful attention to the prerequisites for higher level courses.

Section I
- Students must take all three and one-half full-course equivalents:
  - ECON/44H1 Introduction to Microeconomics
  - ECON/45H1 Introduction to Macroeconomics
  (Students may take as a substitute the mathematical versions of the above credits: ECON/44Y1 &
  ECON/45Y1)
  - EES/41H1 Introduction to Environmental Science
  - IDS/20H1 International Development Studies: Political Economy
  - IDS/30H1 International Development Studies: Development and Environment
  - POL/390H1 Comparative Development in International Perspective
  - POL/391H1 Comparative Development in Political Perspective

Section II
- Students must take four and one-half full-credits with at least one full credit from two of the following groups:
  - A. Social/Cultural Perspectives
    - ANTH/50H1 Political Ecology
    - ANTH/85H1 African Cultures and Societies I: Survey
    - ANTH/86H1 Varieties of Social Life
    - ANTH/87H1 Culture, Politics and Globalization
    - ANTH/84H1 Peoples of the Middle East: An Introduction
    - ANTC/33H1 Muslim Societies
    - ANTC/59H1 African Culture and Societies II: Case Studies
    - ANTC/10H1 Anthropological Perspectives of Development
    - ANTC/11H1 Feminism and Anthropology
    - ANTC/15H1 Gender and Sexualities
    - ANTC/11H1 Producing People and Things: Economics and Social Life
    - ANTC/33H1 Political Anthropology
    - ANTC/34H1 Medical Anthropology: Illness and Healing in Cultural Perspectives
    - ANTC/35H1 Anthropology of Food: Human Needs
    - ANTC/34H1 Anthropology of Food: Consuming Passions
  - B. Environmental Studies
    - DTIS/20H1 Introduction to Diaspora and Transnational Studies I
    - DTIS/30H1 Introduction to Diaspora and Transnational Studies II
    - HISC/30H1 Africa in the Nineteenth Century
    - HISC/51H Twentieth Century Africa.
International Development Studies

MINOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (B.A.)
Supervisor of Studies: P. Kingston (416-287-7305) E-mail: kingston@chass.utoronto.ca

Program Requirements
Students must complete 4 FCEs for the Minor Program in International Development Studies, as follows:

ECMA04H1 Introduction to Microeconomics
ECMA05H1 Introduction to Macroeconomics
(Students may take as a substitute the mathematical versions of the above credits: ECMA04H1 & ECMA05H1)
IDS880H1 International Development Studies: Political Economy
EESA01H1 Introduction to Environmental Science

IDS880H1 International Development Studies: Development and Environment
1.5 FCEs from Section II for the Major Program, which must include 1 FCE at the C- or D-level. Students are advised that POLV09H1 & POLV10H1 are very useful complementory courses, although only 0.5 FCE can be counted as a requirement for the Minor Program.

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 Scarborough.

Program Admission
This is a limited enrollment 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 Faculty of Arts and Science Calendar for Program requirements at: www.artsci.utoronto.ca/efc/calendar. Look also for Environmental Studies under Innis College.
Program Counsellor: David Powell (416-971-5141) E-mail: david.powell@utoronto.ca

IDS801H3 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 PCMA programs.
Limited enrolment: 170
Exclusion: ECO230W
Prerequisite: [ECMA04H1 & ECO230W] or (ECMA04H1 & ECMA05H1) or (ECMA04Y1) or (ECMA05Y1)

IDS802H3 International Development Studies: Development and Environment
The environmental consequences of development activities with emphasis on tropical countries. Environmental change is 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: EESA01H1
The course will also include seminars by practicing professionals on a variety of development topics.
Prerequisite: Students must have completed the first four years of the IDS Specialist Program or its equivalent and have completed their placement. Also, permission of the instructor is required.

International Studies

(B.A.)

Faculty List
E.W. Dowler, A.M., (Harvard), Ph.D. (London School of Economics), Professor
A. Rubinstein, A.B. (Albany), L.M.A., Ph.D. (Chicago), Professor
S. Saloom, B.A. (McGill), M.A., Ph.D. (Columbia), Professor
J. Teichman, B.A., M.A., Ph.D. (Toronto), Professor
P. Kingstone, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor
S.J. Rockel, M.A., Ph.D. (Toronto), Associate Professor
L. Chan, B.A., M.A., Ph.D. (ABD) (Toronto), Senior Lecturer

Discipline Representative/Superior of Studies: L. Chan (416-287-7511)
E-mail: chan@std.toronto.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 tie 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 Programs complement well a major in these listed disciplines. Students can opt to enroll in the Major Program in International Studies, or apply for the limited enrolment Co-op Program in International Studies.

MAJOR (CO-OPTATIVE) PROGRAM IN INTERNATIONAL STUDIES
Co-op Contact: R. Loudes. Email: unkco@toronto.utoronto.ca

This Program combines academic study with work experience in the private sector, in government, in research institutions, in inter-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 enroll in a Major in another discipline. The Co-op Program is a limited enrolment Program. For information on admissions, fees, work terms, and standing in the program, please see the Co-operative Programs 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 (CSSC A 02H, CSSC A09H) among their choices.
MAJOR PROGRAM IN INTERNATIONAL STUDIES

Program Requirements
The program requires the completion of 7 full credits including:
1. ECMA01H Introduction to Microeconomics
or
ECMA04H Introduction to Microeconomics: A Mathematical Approach
2. ECMA05H Introduction to Macroeconomics
or
ECMA06H Introduction to Macroeconomics: A Mathematical Approach
3. IDSC04H Project Management I
or
IDSC07H Project Management II
4. ISTD01H International Studies and International Communications
5. POLB08H Introduction to International Relations
and
POLB01H 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:
CSCA03H The Why and How of Computing
CSCA08H Introduction to Computer Programming
BHA01H The Twentieth Century World I
BHA02H The Twentieth Century World II
IDSC01H International Development Studies: Political Economy
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

- A full credit in language other than English (up to 2 full credits in language can be counted for the Program)
- I full credit in regional courses (to be approved by Supervisor; suitable courses exist in many Humanities and Social Science disciplines. Regional courses are courses focusing on a particular geographic region of the world, such as Latin America, Africa, or South Asia.)
- IDSC06H Directed Research on Canadian Institutions and International Development
- ISTD01H Readings in International Studies
- NMLA20H Introduction to New Media in Humanities and Social Sciences
- NMLA21H Design in Visual Culture
- POLC84H The New International Agenda
- POLD83H Exploring the New International Agenda
- SOC556H Sociology of Mass Media and Communication I
- SOC575H Sociology of Mass Media and Communication II

Stream 2: International Political Economy

- ECMD01H* International Economics: Finance
- ECMD02H* International Economics: Trade
- ECMD06H* Economic Development
- ECMD07H* Development Policy
- GGRB05H Urban Geography
- GGRG29H Problems in Modern Agricultural Land Use
- GGRG45H Local Geographies of Globalization
- IDSC04H International Health Policy Analysis
- IDSC06H Directed Research on Canadian Institutions and International Development
- ISTD01H Readings in International Studies
- POLB01H Comparative Development in International Perspective
- POLB01H Comparative Development in Political Perspective
- POLB02H Comparative Politics
- POLB03H Comparative Politics of Democratic Government
- POLC174H Politics of the Environment
- POLC188H The New International Agenda
- POLC255H International Political Economy
- POLD08H Exploring the New International Agenda
- POLD09H Public Policy and Human Development in the Global South
- SOCC14H* Globalization: Causes, Consequences and Critique

Note: Courses marked * have prerequisites and students in limited enrolment programs in these disciplines have priority.

ISTD01H3 International Studies and International Communications

ISTD01H3 Readings in International Studies

For upper level students whose interests are not covered in one of the other courses normally offered. Courses will normally only be available to students who have completed 15 full credits and all of the Core courses. Students must obtain consent from the Supervisor of Studies and supervising instructor before registering for this course.
Prerequisite: POLB01H & POLB08H & ISTD01H

ISTD01H4 Readings in International Studies

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
Faculty List
M. Mattani, B.A. (Dalhousie, Ph.D. (London), Assistant Professor
K. McCrindle, M.A. (Toronto), Ph.D. (Toronto), Senior Lecturer

SPECIALIST (JOUR) PROGRAM IN JOURNALISM
Superintendent: K. McCrindle (416-287-7733) Email: mccrindle@uwsu.utoronto.ca
This program may be taken in fulfilment of the requirements of a four-year (20-credit) Honours B.A. Degree and takes a minimum of four years to complete. 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. Courses are taught at UTSC and at two campuses of Centennial College (the HP Science and Technology Centre at Downsview and the Centre for Creative Communications in East York). Centennial courses are taken in the third and fourth years of the program.

Program Admission
Limited enrollment. Applicants must fill out a joint program application form, which is available online at http://www.utoronto.ca/jointprograms.

Program Requirements
a) JOUA01H Introduction to Journalism
b) (International Perspective) 1.0 full credit equivalent from:
   - ANTB54H People of the Middle East: An Introduction
   - ANTC55H Muslim Society
   - ENGR17H Contemporary Literature from the Caribbean
   - ENGB10H Contemporary Literature from South Asia
   - ENGC27H Contemporary Literature from Sub-Saharan Africa
   - ENGC70H The Immigrant Experience in Literature I
   - ENGC71H The Immigrant Experience in Literature II
   - FRED15H The Francophone World
   - FRED35H Francophone Literature
   - FREC47H Special Topics in Linguistics: Pilgrims and Creole Languages
   - FREC53H Cultural Identities and Stereotypes in the French-Speaking World
   - HIS20H The Twentieth Century World I
   - HIS20H The Twentieth Century World II
   - HUMB00H Religious Traditions of the West
   - HUMB00H Religious Traditions of the East
   - IDBS01H International Development Studies: Political Economy
   - IDBS02H International Development Studies: Development & Environment
   - IDBS04H International Health Policy Analysis
   - PHIL14H Introduction to Chinese Philosophy
   - PHIL24H Introduction to Buddhist Philosophy
   - POLS100H Introduction to International Relations
   - POLS11H International Conflict & Conflict Management
   - POLS40H Comparative Development in International Perspective
   - (Canadian Perspective) 1.0 full credit equivalent from:
     - ANTB16H Canadian Cultural Identities
     - ANTC22H Canadian Native Peoples: Traditional Values
     - ANTC22H Canadian Native Peoples: Contemporary Concerns
     - ECMC31H Introduction to Microeconomics

c) (International Perspective) 1.0 full credit equivalent from:
   - ENGB10H Canadian Literature Traditions
   - ENGB17H Nation in Canadian Writing
   - ENGB25H Canadian Short Story
   - FRED25H Society and Culture of Quebec
   - FRED35H The Twentieth Century Quebec Novel
   - FRED70H Contemporary Quebec Drama
   - HIS10H Canadian History to 1850
   - HIS41H Canadian History since 1850
   - HIS45H Immigrants and Race Relations in Canadian History
   - POLA15H Critical Issues of Canadian Democracy
   - POLA41H Leaving Home: Politics and Emigration
   - POLB30H Canada's Political Institutions
   - POLB32H Canadian Politics: Connecting Citizens and Governments

d) (International Perspective) 1.0 full credit equivalent from:
   - ANTB55H Health and the Urban Environment
   - CGYA01H Introductory Biology: Part I
   - CGYA21H Introductory Biology: Part II
   - EESA01H Introduction to Environmental Science
   - EESA05H Environmental Hazards
   - EESA06H Introduction to Planet Earth
   - EESA07H Water
   - EESA10H Human Health and the Environment
   - GGRA02H Geography of Global Processes
   - GGRA03H Cities and Environments
   - GGRG45H Local Geographies of Globalization
   - GURC40H Tourism, Environment and Development
   - POLC33H Canadian Environmental Politics

e) (Med and Society Perspective) 1.0 full credit equivalent from:
   - ENGC38H Novel Genres: Fiction, Journalism, News and Autobiography
   - ENGC55H Literature and Media: The Spoken Word and the Visual Page
   - ENGC56H Literature and Media: From Page to Screen
   - FRED15H Commercial French
   - FRED45H Sociolinguistics of French
   - HISB08H Modern Europe I
   - HISB18H Modern Europe II
   - HIS22H Early Modern Britain I
   - HIS22H Early Modern Britain II
   - IDSC15H Topics in International Development Studies (if offered as Development Studies and the Media)
   - ISTB01H International Studies and International Communications
   - LING11H Language and Society
   - PHIL11H Introduction to Ethics
   - PHIL31H Philosophy and Feminism
   - POLB72H Political and Social Theory of Contemporary Society I
   - POLB72H Political and Social Theory of Contemporary Society II
   - POLC91H The New International Agenda
   - SOCC15H Sociology of Mass Media and Communications: Institutions, Technologies and Politics
   - SOCSCI7H Sociology of Media and Communications: Texts and Audiences
   - VPA101H Introduction to Contemporary Cultural Theory
   - VPA201H Cultural Pluralism and the Arts
   - WSTB13H Women and the Media
This course is taught at the HP Science and Technology Centre (Centennial College) and is open only to students in the Joint Program in Journalism. Prerequisite: 12 credits, including JOUA061H & JOUB111H & JOUB141H & JOUB181H.
Corerequisite: JOUB03H & JOUB091H & JOUB101H & JOUB171H

JOUB091H Copy Editing
A practical course in the skills needed to prepare news copy for publication. Emphasis is on making mechanical, factual and contextual corrections; improving story leads and organization; and forging positive coaching relationships with reporters. Each participant is responsible for producing publishable copy, alone and as part of a team.
This course is taught at the HP Science and Technology Centre (Centennial College) and is open only to students in the Joint Program in Journalism. Prerequisite: 12 credits, including JOUA061H & JOUB111H & JOUB141H & JOUB181H.
Corerequisite: JOUB03H & JOUB091H & JOUB101H & JOUB171H

JOUB1012H Newspaper Laboratory 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 is an intensive course which requires a large time commitment that may include evenings and weekends.
- This course is taught at the HP Science and Technology Centre (Centennial College) and is open only to students in the Joint Program in Journalism. Prerequisite: 12 credits, including JOUA061H & JOUB111H & JOUB141H & JOUB181H.
Corerequisite: JOUB03H & JOUB091H & JOUB101H & JOUB171H

JOUB1013H Advanced Interviewing Techniques
An advanced course designed to improve skills for interviewers in journalism. The course involves analyzing taped interviews, role-playing, critiquing student interviews, and research. The course teaches people skills as well as interviewing skills.
JOUB183 Imaging: Journalism

As an introduction to the basic concepts of photography and a deeper examination of the principles of photojournalism. Students create photo stories using a range of equipment (portable, battery-operated flash equipment, digital cameras, etc.) and learn how to edit images for publication, either in print or in Web form.

This course is taught at the HP Science and Technology Centre (Centennial College) and is open only to students in the Joint Program in Journalism. Prerequisite: 10 credits Corequisite: JOUC406H & JOUC183H

JOUC283H Critical Journalism

The course examines the representation of race, gender, class, and power in the media, traditional journalistic practices and newswroom culture. It will prepare students who wish to work in a media-related industry with a critical perspective towards understanding the marginalization of particular groups in the media.

This course is taught at UTSC and is open only to students in the Joint Program in Journalism. Limited enrollment: 35. Prerequisite: 4.0 credits including JOUC406H or permission of instructor.

JOUC173H Beat 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 is an intensive course which requires a large time commitment that may include evenings and weekends.

This course is taught at the HP Science and Technology Centre (Centennial College) and is open only to students in the Joint Program in Journalism. Prerequisite: 14.5 credits, including JOUB030H & JOUB051H & JOUB091H & JOUB181H & JOUB171H Corequisite: JOUC173H & JOUC169Y

JOUC173H News for the Electronic Media 2

As 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 at the Centre for Creative Communications (Centennial College) and is open only to students in the Joint Program in Journalism. Prerequisite: 14.5 credits, including JOUB030H & JOUB051H & JOUB091H & JOUB181H & JOUB171H Corequisite: JOUC173H & JOUC169Y

JOUC173H Languages

See the Languages and Linguistics section of this Calendar.

Languages and Linguistics

(B.A.)

Faculty List

C. Bertrand-Jennings, L. és L. (Paris), Ph.D. (Wayne State), Professor Emeritus
L.E. Dozoretz, B.A. (London), Ph.D. (Brown), Professor Emeritus
P.R. Lein, M.A., Ph.D. (Cornell), Professor Emeritus
C.V. Ponamareff, M.A., Ph.D. (Toronto), Professor Emeritus
R. Skymne, B.A., M.Litt. (Bristol), M.A., Ph.D. (Michigan), Professor Emeritus
H. Wittmann, M.A., Ph.D. (Mun.), Professor Emeritus
R.J. Binnick, B.A. (CUNY), M.A., Ph.D. (Chicago), Professor
D.M. James, B.A. (UBC), M.A. (Cornell), Ph.D. (Michigan), Associate Professor
S. Mütter, M.A. (Toronto), Ph.D. (Strasboug), Associate Professor
J. Ndayiragije, M.A. (Montréal-Quéam), Ph.D. (Montréal-Quéam), Associate Professor
R. Smith, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor
R. Helen-Park, M.A., Ph.D. (Toronto), Assistant Professor
P. Rondoua, M.A., Ph.D. (Montréal), Assistant Professor
K. McCrindle, M.A. (Toronto), Ph.D. (Toronto), Senior Lecturer
F. Muggle, M.A. (Lyon), Ph.D. (Grenoble), Senior Lecturer
C. Beaugis, M.A., Ph.D. (Wurtem.), Lecturer
I. Dyson, B.A, Ph.D.(Toronto), Lecturer
P. Rada, Ph.D. (Toronto), M.A. (Masaryk, Czech Rep.), Lecturer

Discipline Representative: R. Binnick (416-287-7120)

The Languages and Linguistics discipline encompasses degree programs in both French (FR) and Linguistics (LLN), as well as certain language courses (LLG) which are not associated with a specific degree. There is a Specialist Program in Management and French. The LLG courses currently include English for Academic purposes (formerly HLM courses), French as a Second Language, Arabic, Mandarin, and Spanish.

Registration in all language courses (all courses with the prefix LLG and language practice and conversation courses with the prefix FRLG) 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

(B.A.)

Faculty List

C. Bertrand-Jennings, L. és L. (Paris), Ph.D. (Wayne State), Professor Emeritus
L.E. Dozoretz, B.A. (London), Ph.D. (Brown), Professor Emeritus
S. Mütter, M.A. (Toronto), Ph.D. (Strasboug), Associate Professor
J. Ndayiragije, M.A. (Montréal-Quéam), Ph.D. (Montréal-Quéam), Associate Professor
P. Rondoua, M.A., Ph.D. (Montréal), Assistant Professor
K. McCrindle, M.A. (Toronto), Ph.D. (Toronto), Senior Lecturer
F. Muggle, M.A. (Lyon), Ph.D. (Grenoble), Senior Lecturer
C. Beaugis, M.A., Ph.D. (Wurtem.), Lecturer

Languages 185
Program Admission

Students may apply to the Program directly from secondary school. When applying, they must indicate the special code for this UTSC 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 ETP.

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 OISE/UT will be admitted to OISE/UT.

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 FREN40H1, FREN40H2, FREN40H3, FREN40H4, FREN40H5, and FREN40H6 (except where substitution of other French credits is permitted for students with special proficiency in the French language)
2. Two full credits selected from FREN44H1, FREN44H2, FREN44H3, FREN44H4, FREN44H5, and FREN44H6.
3. One full credit selected from FREN45H1, FREN45H2, and FREN45H3.
4. Three full credits in literature which must include one full credit in French Canadian literature; one full credit in French literature (FREN50H1 and FREN51H1 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. FREN44H1 and FREN44H2 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 counseling at OISE/UT.* The following are recommended as general preparation for the OISE/UT B.Ed., Program:

1. a half-credit in educational psychology
2. a half-credit in language acquisition: PLIN25H1 or PLINC25H1
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 FREN41H1 and FREN41H2. UTSC will help students arrange these practicum placements in local elementary or secondary schools.
MINOR PROGRAM IN FRENCH
Supervisor: F. Mugnier (416-287-7143) Email: mugnier@utsc.utoronto.ca
Program Requirements
Students should complete four full credits including: FREA01H, FREA02H, FRED09H 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: F. Mugnier (416-287-7143) Email: mugnier@utsc.utoronto.ca
Program Requirements
Students in this Program should complete at least four full credits including FREA01H, FRED02H, FRED06H, FRED09H, FRED10H, FRED12H, and one other credit at the FBE-level or higher. LOG122H may be included if taken before FREA01H. Students who start at this level should complete at least 4 full credits including FREA08H, FRED09H, FRED10H, FRED02H, FRED06H, FRED12H, plus one other half-credit at the FBE-B-level.

MINOR PROGRAM IN FRENCH FOR FRANCOPHONES
Supervisor: F. Mugnier (416-287-7143) Email: mugnier@utsc.utoronto.ca
Program Requirements
Students in this Program must complete at least four full credits at the B- and C-levels, excluding FRED09H, FRED02H and FRED17H. At least one full credit must be at the C-level.

SPECIALIST PROGRAM IN MANAGEMENT AND FRENCH
Supervisor: F. Mugnier (416-287-7143) Email: mugnier@utsc.utoronto.ca
Program Admission
Registration in this Program is limited. Please refer to the Management section of this Calendar for details.

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, FRED08H, FRED09H, and one full credit from among FRED04H, FRED05H, FRED07H, and FRED08H
  b) At least one full credit from among FRED09H, FRED10H, FRED12H, and FRED14H
  c) At least one half-credit from among FRED02H, FRED06H, FRED18H
  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. FREA08H is a prerequisite for all B-level courses.

Exclusion: Native or near-native fluency in French (FREA09H, FSL161Y), FSL221Y
Prerequisite: OAC French or Grade 12 French or equivalent or permission of instructor

Note: For co-op opportunities related to the Major Program in French please see the Humanities section in this Calendar.
FREB009H3 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.
Exclusions: FREC18H, FREC40Y, FREC41Y or equivalent or native proficiency
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) or equivalent or permission of instructor

FREB009H3 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.
Exclusion: FREC18H, FREC40Y & FREC41Y or equivalent or native proficiency
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) or equivalent or permission of instructor

FREB13H3 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: [FREA01H & FREA02H] or (FREA10Y) or equivalent or permission of instructor

FREB17H3 Conversation II
Intensive practice in spoken French.
Controlled situational work, discussion groups and a variety of exercises designed to improve textual and syntactical resourcefulness will provide an opportunity for a reasonable degree of confidence when speaking about everyday life and contemporary topics.
FREB17H3 can also be taken under Study Elsewhere.
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) or equivalent

FREB18H3 Commercial French
The French language in a commercial or economic context.
Of interest, among others, to students in French, Business, Accounting, Management, Economics and Journalism, this course emphasizes commercial writing techniques and exercises that include the vocabulary and structures of business language primarily as found in the Francophone business community.
Exclusion: FSL364H
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) or equivalent or permission of instructor

FREB20H3 Teaching Children's Literature in French
An analysis of the varied forms and contexts of children's literature written in French.
The course examines different texts in terms of target age, pictorial illustrations, didactic bent, socio-cultural dimensions etc., focusing on, among other things, fairy tales urban and otherwise, cartoons, detective stories, adventure tales, and art, science and history books.
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) or equivalent or permission of instructor

FREB22H3 The Society and Culture of Quebec
A study of the historical, cultural and social development of Quebec society from its origins to today.
Aspects such as history, literature, art, politics, education, popular culture and cinema will be examined. Emphasis will be placed on the elements of Quebec culture and society that make it a distinct place in North America.
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) or equivalent or permission of instructor

FREB27H3 Modern France
An examination of political, social and cultural developments in France in the last hundred years. Topics will include: the impact of two World Wars; the decolonization process; the European Community; the media; the educational system; immigration etc.
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) or equivalent or permission of instructor

FREB28H3 The Francophone World
An examination of historical, political and cultural realities in different parts of the French-speaking world. Topics to be discussed will include slavery, colonization, de-colonization and multi-linguism.
Exclusion: FSL362Y
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) or equivalent or permission of instructor

FREB35H3 Francophone Literature
A study of a variety of literary texts from the French-speaking world, excluding France and Canada. Attention will be given to the cultural and historical background as well as to the close study of works from various ethnic communities.
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) or equivalent or permission of instructor

FREB36H3 The 20th Century Quebec Novel
A study of some of the major novels written in Quebec since 1945.
The course will focus on the evolution of the novelistic form and its relevance within modern Western literature. We will also examine the link between the novels studied and the transformation of Quebec society.
Exclusion: FRE210Y
Prerequisite: [FREA01H & FREA02H] or (FREA10Y)
Corequisite: [FREB51H or (FREB50Y)] or equivalent or permission of instructor

FREB37H3 Contemporary Quebec Drama
An examination of contemporary Quebec theatre.
We will study texts representative of a variety of dramatic styles. The focus will be primarily on dramatic texts; significant theatrical performances, however, will also be considered.
Exclusion: FRE12H
Prerequisite: [FREA01H & FREA02H] or (FREA10Y)
Corequisite: [FREB51H or (FREB50Y)] or equivalent or permission of instructor
FREB540H3 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: FRE112H
Prerequisite: [FREA01H & FREA02H] or (FREA01T) or equivalent.

FREB440H3 Introduction to Linguistics: French Phonetics and Phonology
An examination of the sound system of modern French.
The course will acquaint student with acoustic phonetics and the basic concept and features of the French phonetic system. Phonological interpretation of phonetic data (from speech samples) and prosodic features such as stress and intonation will be examined.
Exclusion: FRE222Y, FRE370H
Prerequisite: [FREA01H & FREA02H] or (FREA01T) or equivalent or permission of instructor.

FREB454H3 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 FREB438H and FREB448H.
Exclusion: FRE222Y
Prerequisite: [FREA01H & FREA02H] or (FREA01T) or permission of instructor.

FREB464H3 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. Exclusion: FREB505Y or equivalent.
Prerequisite: [FREA01H & FREA02H] or (FREA01T) or equivalent or permission of instructor.

FREB563H3 Introduction to Literature in French II
A continuation of FREB464H.
Exclusion: [FREB359Y] or equivalent
Prerequisite: FREB505H.

FREB663H3 Topics in Literature: The Fantastic, The Unreal and the Marvellous in 19th Century Fiction
The study of the literary fantastic, unreal and marvelous in the context of the time and culture that produced it. Using short works by authors such as Maupassant and Mervio, examples from other eras, we examine how personalities like Memmie and Haldaline inaugurated a new perspective on surrealism.
Prerequisite: [FREB556H & FREB515H] or (FREB59Y).

FREB675H3 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: FREA01H and FREA02H or equivalent or permission of instructor.

FREB464H3 Folktales, Myth and the Fantastic in the French-Speaking World
An examination of the imaginative/imaginary in cultures and belief systems in the francophone world. Myths and Folktales from Canada, the U.S., French Guyana, North and West Africa will be examined in terms of form, function, psychological dimensions and cultural interpretations of, for instance, life, death, food and individualism. Taught in English.
Prerequisite: [FREA01H & FREA02H] or (FREA10Y) for students enrolled in French programs or two A-level courses in Humanities or permission of instructor.

FREC50H3 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], [FSL361Y], [FSL382H], [FSL383H], [FSL431Y], [FSL421H], [FSL431H] or equivalent.
Prerequisite: [FREC50H & FREB302H] or (FREC80Y) or equivalent or permission of instructor.

FREC320H3 Language Practice VI
A continuation of FREC50H.
Exclusion: [FREC10Y], [FSL361Y], [FSL382H], [FSL383H], [FSL431Y], [FSL421H], [FSL431H] or equivalent.
Prerequisite: FREC30H or FREB302H or (FREC80Y) or equivalent or permission of instructor.

FREC505H1 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 retention, accuracy of expression, lexical resourcefulness, cultural "reframing" and speed of delivery.
Prerequisite: FREB17H or equivalent or permission of instructor.

FREC11H2 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: FREB84H
Prerequisite: [FREC01H & FREC02H] or (FREC10Y) or equivalent or permission of instructor.

FREC15H3 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: FREB640Y, FREB641Y
Prerequisite: [FREC01H & FREB503H] or (FREC80Y) or equivalent or permission of instructor.

FREC53H3 Special Topics in the Literature of Quebec: Post-Modern Literature
An exploration of the textual forms and ideas that challenge tradition in contemporary writing.
Quebecois post-modern literature speaks of vitality, liberating forces and creativity. We will examine issues such as gender identity, the question of the Self and the Other and the impact of technology on our culture.
Prerequisite: FREB561 or equivalent or permission of instructor.

FRC463H3 French Syntax
A study of various aspects of French syntax.
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 ESL learners.
Exclusion: FRE378H
Prerequisite: FREB448H.

FRC474H3 Special Topics in Linguistics: Pidgin and Creole Languages
A study of pidgin and Creole languages worldwide.
The course will introduce students to the complex grammar 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: FREB43H or FREB441H or FREB451H or (FRA01H) or permission of instructor.
FREC4813 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, type of situation and gender of speaker. Other topics include dialect, languages in contact, language shift, social codes and pidgin and creole languages. Exclusion: LIN121H1
Prerequisite: FREB111H & FREB211H or (FREB110Y) or equivalent or permission of instructor

FREC4893 French Semantics
An examination of meaning and interpretation in the structure, function and use of the French language. The course will introduce students to approaches to the notion of meaning as applied to French data. Identification of elements of meaning, of their properties and of their combination will be discussed. Exclusion: FREM410L, LIN121H1
Prerequisite: FREB443H or FREB444H or FREB450H or LIN410H1 or permission of the instructor

FREC5693 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: FREB111H & FREB211H or (FREB120Y) or (FREB120H1) or FREB230H1 or (FREB215H3) or (FREB150H) or equivalent or permission of instructor

FREC6193 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: FREB305H1 & FREB511H or (FREB120Y) or equivalent or permission of instructor

Languages
Faculty List
R. Helms-Paris, M.A., Ph.D. (Toronto), Assistant Professor
L. Dyson, BA, MA, Ph.D. (Toronto), Lecturer
P. Rada, Ph.D. (Toronto), M.A. (Masaryk, Czech Rep.), Lecturer

Languages
FREC393H Cultural Identities and Stereotypes in the French-Speaking World
The history and development of cultural stereotypes in French and the Francophone world.

The course examines language and culture, and the historical role of eurocentric and colonisation in the construction of cultural stereotypes. "Others" considered include the "s.CONTENT", the "Oriental", the "country bumpkin" and the "foreigner". Taught in English.
Prerequisite: Two Humanities courses or permission of instructor

FRED2123 Advanced Topics in Literature: Haitian Migrant Literature in Quebec
Novels by Haitian writers living in Quebec speak of migration, tension, marginalization, in-betweenness, belonging, the Self and the Other. This course will explore these issues through 4 novels and several other texts, all of which question our societies and encourage change.
Prerequisite: FRED250H1 or FRED251H1 & (FRED250H1 or FRED251H1)

FRED353H
FRED353H
FRED354H
FRED354H
FRED357H
FRED359Y

FRED559Y 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, Nihilography, and methods of approach. The material studied should bear a clear relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in regular courses. In applying to a faculty supervisor, students should be prepared to present a brief written statement of the topic they wish to explore. Final approval of the project rests with the French Discipline.

Students are advised that they must obtain consent from the supervising instructor before registering for these courses. Interested students should contact the Discipline Representative or Supervisor of Studies for guidance.
Prerequisite: One B-level course in the group FRED250H1-FRED454H, except FRED217H & FRED218H.

LGGA491H 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 the study of Canadian culture and society through guest lectures, documentaries, non-fiction and fiction, with an emphasis on multicultural writings.
Evaluation is based on team oral presentations, research papers, and participation in class discussion.
Exclusion: HUMA11Y. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.

LGGA493H Introduction to Canadian Literature
A continuation of LGGA491H. This course builds on the skills learned in LGGA491H. Limited enrolment: 30
Exclusion: All EAS Chinese language courses, LGGB50H1 & LGGB50H2. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those who might have taken LGGA491H.
Prerequisite: LGGA491H or permission of the instructor.

LGGA110H Introduction to Canadian Writing Process I: A Course for Non-Native Speakers of English
An examination of the fundamentals of academic writing.
Designated especially for learners of English as a second language, this course highlights the importance of relevant context, coherence, and standard documentation in academic writing. Students enrolled in LGGA110H must also be enrolled in LGGA493H.
Exclusions: LGGB50H1, HUMA11Y, (LGGB50H1) or (LGGB50H2). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course. Corequisite: LGGA491H.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGG1H3</td>
<td>Current Approaches to the Academic Writing Process II: A Course for Non-Native Speakers of English</td>
<td>A continuation of LGG1H. This course stresses the development of research-based writing skills, communication skills, and critical thinking through written assignments, short oral presentations, and discussion. Exclusion: LGG499H, (HUMA10), (LGG910Y). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite. Prerequisite: LGG1H or permission of the instructor.</td>
</tr>
<tr>
<td>LGA1H3</td>
<td>Writing Practice: A Course for Non-Native Speakers of English</td>
<td>This course is designed to provide small groups of students with intensive writing and speaking practice on a weekly basis. Students enrolled in LGA1H must be enrolled in LGA1H3. Exclusion: LGG991H, (HUMA10H). Corequisite: LGG1A7H.</td>
</tr>
<tr>
<td>LGA21H3</td>
<td>Introductory French I</td>
<td>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: ESL100H or equivalent or above, Grade 9 C Core French or above (you may be asked to provide high school academic records to confirm your status), not open to native or fluent speakers of French.</td>
</tr>
<tr>
<td>LGA22H3</td>
<td>Introductory French II</td>
<td>An intensive course in written and spoken French, a continuation of LGA21H. 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 LGA22H1, using second half of same textbook. Exclusion: Grade 10 French or equivalent or above, ESL102H or equivalent, not open to native or fluent speakers of French. Prerequisite: LGA21H or ESL100H (Students with Grade 9 C Core French or equivalent or above should proceed directly to LGG22H3).</td>
</tr>
<tr>
<td>LGA23H3</td>
<td>Introductory Spanish I</td>
<td>An elementary 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 augmented 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, (LGG311H), SPA101Y, SPA101Y, native or near-native proficiency in Spanish. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course. Prerequisite: LGG1H or permission of the instructor.</td>
</tr>
<tr>
<td>LGA31H3</td>
<td>Introductory Spanish II</td>
<td>A continuation of LGA23H3. Exclusion: Grade 12 Spanish, OAC Spanish, (LGG311H), SPA101Y, SPA101Y, native or near-native proficiency in Spanish. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.</td>
</tr>
<tr>
<td>LGA42H3</td>
<td>Introduction to Standard Arabic I</td>
<td>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 enrollment: 30 Exclusion: NMC210Y, NMC210Y, Arabic instruction in high school, prior knowledge of Arabic. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.</td>
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<tr>
<td>LGA43H3</td>
<td>Introduction to Standard Arabic II</td>
<td>A continuation of LGA42H3. This course will build on the skills learned in LGA42H31 and will provide further practice in reading and writing in the Arabic script. Limited enrollment: 30 Exclusion: NMC210Y, NMC210Y, the instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite. Prerequisite: LGA42H3 or permission of the instructor.</td>
</tr>
<tr>
<td>LGA96H3</td>
<td>Language, Power, and Critical Thinking</td>
<td>An examination of the relationship between language and power in society. Students will analyze: analytic, political, male/female, cross-cultural, and nationalist discourse in order to learn how language is used to establish power relations, to express ideology, and to accomplish a diversity of other goals in everyday life. Exclusion: (LGA123H).</td>
</tr>
<tr>
<td>LGA991H</td>
<td>Linguistic Concepts for Effective Writing</td>
<td>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 may it be used as part of the linguistics component of the major or specialist programs in cognitive science. Exclusion: LGA1H3, LGA1H3, LGA1H3, LGA1H3, HUMA10H, HUMA10H, (HUMA12H), ENG100H, JN105Y, JN105Y, TRN100Y.</td>
</tr>
<tr>
<td>LGB81H3</td>
<td>Modern Standard Chinese II</td>
<td>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, speech, complex form to simple-form Chinese character conversion, and essay writing based on a novel. Materials focus on linguistics and literature. Exclusion: EAS290Y, (HUMB10), (LGG01Y). Students may be excluded from the course if the instructor deems their proficiency in Mandarin to be inappropriate for the level of the course.</td>
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<tr>
<td>LGB82H3</td>
<td>Modern Standard Chinese II</td>
<td>A continuation of LGB81H, with additional stress on English-Chinese and Chinese-English translation. Materials cover political, economic, and business issues. Exclusion: EAS290Y, (HUMB10), (LGG001Y). Students may be excluded from the course if the instructor deems their proficiency in Mandarin to be inappropriate for the level of the course, including those students who meet the prerequisite. Prerequisite: LGB81H3.</td>
</tr>
<tr>
<td>LGB83H3</td>
<td>Intermediate Standard Chinese II</td>
<td>This course will develop listening, speaking, reading, and writing skills in Standard Chinese. Writing tasks will help students to progress from characters to compositions and will include translation from Chinese to English and vice versa. The course is not open to students who have more than the rudiments of Chinese. Limited enrollment: 30 Exclusion: LGB81H, LGB82H, and all EAS Chinese language courses; native speakers of any dialect of Chinese. Students may be excluded from the course if the instructor finds their level of proficiency inappropriate for the course. Prerequisite: LGA02H3 or permission of the instructor.</td>
</tr>
<tr>
<td>LGB84H3</td>
<td>Intermediate Standard Chinese II</td>
<td>A continuation of LGB83H. Limited enrollment: 30 Exclusion: LGB81H, LGB82H, all EAS Chinese language courses. Students may be excluded from the course if the instructor finds their level of proficiency inappropriate for the course. Prerequisite: LGB83H or permission of the instructor.</td>
</tr>
</tbody>
</table>
LGG2H3 Intermediate Spanish I

This course concentrates on an intensive review of Spanish grammatical principles in the context of written exercises, compositions, and translations.

Exclusions: SPA220Y, SPA201H1, native or near-native proficiency in Spanish.

Prerequisite: LGG1H3 or equivalent.

LGG2H3 Intermediate Spanish II

A continuation of LGG2H3.

Exclusions: SPA220Y, native or near-native proficiency in Spanish.

Prerequisite: LGG2H3 or equivalent.

LGG2H3 Intermediate Standard Arabic II

Building on LGG2H3, this course develops reading, writing, listening, speaking skills in standard Arabic and introduces the Arabic script, grammar, and修整 cultural concepts in context. The course also includes discussion of colloquial Arabic and cultural aspects of everyday life in Arabic-speaking communities.

Limited enrollment: 30

Exclusion: Arabic courses in high school; advanced knowledge of Arabic; equivalent courses elsewhere. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.

Prerequisite: LGG2A1H or permission of the instructor.

LGG2H3 Intermediate Standard Arabic I

A continuation of LGG2H3. Through the use of authentic texts this course builds on language skills and cultural knowledge acquired in previous courses. The course also includes translation from Arabic to English and vice versa.

Limited enrollment: 30

Exclusion: Arabic courses in high school; advanced knowledge of Arabic; an equivalent course elsewhere.

Prerequisite: LGG2H3.

LGGC3H5 Advanced Spanish I

An intensive study of grammar and syntax; translation, composition, combined with oral practice.

Detailed examination of the syntax of Spanish grammar through practice in translation from and into Spanish, composition, and conversation.

Exclusions: SPA320Y, SPA301Y, native or near-native proficiency in Spanish.

Prerequisite: LGG2H3 or equivalent.

LGGC3H5 Advanced Spanish II

A continuation of LGGC3H5.

Exclusions: SPA320Y, native or near-native proficiency in Spanish.

Prerequisite: LGGC3H5.

LGGC3H5 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 area of the Spanish language through translation, correspondence, and individual and group oral presentations.

Exclusions: LGGC3H1 or equivalent.

LGGC3H3 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 sport will broaden students' vocabulary and help develop proficiency in handling non-literate modes of expression. Evaluation is based on weekly assignments, active participation in class discussion, and an examination.

Exclusions: SPA320Y, SPA301Y.

Prerequisite: LGGC3H1 or equivalent.

LGG43H3 Intermediate Standard Arabic II

A continuation of LGG43H3. Through the use of authentic texts this course builds on language skills and cultural knowledge acquired in previous courses. The course also includes translation from Arabic to English and vice versa.

Limited enrollment: 30

Exclusion: Arabic courses in high school; advanced knowledge of Arabic; an equivalent course elsewhere.

Prerequisite: LGG43H3.

LGGC3H3 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 area of the Spanish language through translation, correspondence, and individual and group oral presentations.

Exclusions: LGGC3H1 or equivalent.

LGGC3H3 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 sport will broaden students' vocabulary and help develop proficiency in handling non-literate modes of expression. Evaluation is based on weekly assignments, active participation in class discussion, and an examination.

Exclusions: SPA320Y, SPA301Y.

Prerequisite: LGGC3H1 or equivalent.

LGGC3H3 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 area of the Spanish language through translation, correspondence, and individual and group oral presentations.

Exclusions: LGGC3H1 or equivalent.

LGGC3H3 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 sport will broaden students' vocabulary and help develop proficiency in handling non-literate modes of expression. Evaluation is based on weekly assignments, active participation in class discussion, and an examination.

Exclusions: SPA320Y, SPA301Y.

Prerequisite: LGGC3H1 or equivalent.

LGGC3H3 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 area of the Spanish language through translation, correspondence, and individual and group oral presentations.

Exclusions: LGGC3H1 or equivalent.

LGGC3H3 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 sport will broaden students' vocabulary and help develop proficiency in handling non-literate modes of expression. Evaluation is based on weekly assignments, active participation in class discussion, and an examination.

Exclusions: SPA320Y, SPA301Y.

Prerequisite: LGGC3H1 or equivalent.

LGGC3H3 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 area of the Spanish language through translation, correspondence, and individual and group oral presentations.

Exclusions: LGGC3H1 or equivalent.

LGGC3H3 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 sport will broaden students' vocabulary and help develop proficiency in handling non-literate modes of expression. Evaluation is based on weekly assignments, active participation in class discussion, and an examination.

Exclusions: SPA320Y, SPA301Y.

Prerequisite: LGGC3H1 or equivalent.
MAJOR PROGRAM IN LINGUISTICS

Supervisor: R.J. Binick (416-287-7120) Email: binickc@utsc.utoronto.ca

Program Requirements

Students must complete seven full credits, as follows:

LINA601H General Linguistics I
LINA602H General Linguistics II

LINA603H Phonetics: The Study of Speech Sounds
LINA604H Practical Language Analysis: Phonology
LINA605H Practical Language Analysis: Morphology
LINA606H Practical Language Analysis: Syntax

Four further full credits in LIN and/or PLI and/or FRI languages (FREC46H, FREC47H, FREC48H, FREC49H), of which at least two credits must be at the C- or D-level,
or

Three further full credits in LIN (and optionally including LGOA99H) and/or PLI and/or FRI
languages (FREC46H, FREC47H, FREC48H, FREC49H), of which at least one credit must be at the C- or D-level, and one C-level full credit in a language.

MINOR PROGRAM IN LINGUISTICS

Supervisor: R.J. Binick (416-287-7120) Email: binickc@utsc.utoronto.ca

Program Requirements

Students must complete four full credits, as follows:

LINA401H General Linguistics I
LINA402H General Linguistics II

Any two of the following four courses:
LINA404H Practical Language Analysis: Phonology
LINA405H Practical Language Analysis: Morphology
LINA406H Practical Language Analysis: Syntax
LINA409H Phonetics: The Study of Speech Sounds

Two further full credits in either LIN (and optionally including LGOA99H) and/or PLI and/or
FRI languages (FREC46H, FREC47H, FREC48H, FREC49H), of which at least one credit must be
at the C- or D-level.

LINA503H General Linguistics I
An introduction to the various methods and theories of analyzing speech sounds,
words, sentences and meanings, both in particular languages and in general.
Exclusion: LIN100Y (LINA01Y)

LINA502H General Linguistics II
An introduction to the application of the linguistic methods and theories in
LIN101H to topics such as the relationship between language and mind,
language and culture, language and history, and language and society.
Exclusion: LIN100Y (LINA01Y)
Prerequisite: LINA401H

LINA504H Practical Language Analysis: Phonology
Practice in analysis of sound patterns in a broad variety of languages.
Exclusion: LIN209H
Prerequisite: LINA401H or (LINA01Y)

LINA505H Practical Language Analysis: Morphology
Practice in analysis of word structure in a broad variety of languages.
Exclusion: LIN201H
Prerequisite: LINA401H or (LINA01Y)

LINA506H Practical Language Analysis: Syntax
Practice in analysis of sentence structure in a broad variety of languages.
Exclusion: LIN202H
Prerequisite: LINA401H or (LINA01Y)

LINC09H3 Phonetics: The Study of Speech Sounds
An examination of physiological and acoustic bases of speech.
Exclusion: LIN220H
Prerequisite: LINA401H or (LINA01Y)

LINC17H3 The Structure of English Sentences
Description and analysis of various aspects of the structure and grammar of
English sentences, with emphasis on those distinctive and characteristic features most
of interest to teachers and students of the language.
Exclusion: LIN204H
Prerequisite: LINA401H or (LINA01Y)

LINC18H3 The Structure of English Words
Description and analysis of the structure of English words, including the sound
and word structure systems, with emphasis on those distinctive and characteristic features
most of interest to teachers and students of the language.
Exclusion: LIN204H
Prerequisite: LINA401H or (LINA01Y)

LINC21H3 Language and Society
The study of the relationship between language and society, with the goal of
understanding social structure through language. Major themes are: multilingual
societies, including the politics of language and the spread or death of languages, and
social interaction through speech, including how conversations work, politeness, and
cross-cultural miscommunication.
Exclusion: FREC48H
Prerequisite: LINA401H or (LINA01Y)

LINC22H3 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: JAU154H, LIN256H
Prerequisite: LINA401H or (LINA01Y)

LINC23H3 Phonology: Sound Systems of Language
Basic issues in phonological theory. This course assumes familiarity with phonetic
principles, as discussed in LINC11H, and with phonological problem-solving
methods, as discussed in LINC10H.
Exclusion: LIN321H
Prerequisite: LINC404H & (LINC10H)

LINC24H3 Language Change
An introduction to Language change and language relationships.
Exclusion: LIN321H
Prerequisite: LINA402H or (LINA01Y)

LINC25H3 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: LINC10H

LINC12H3 Semantics: The Study of Meaning
An introduction to the role of meaning in the structure, function, and use of
language.
Exclusion: LIN341H, FREC48H
Prerequisite: LINA401H or (LINA01Y)

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 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: LINA401H or (LINA01Y)

LINC15H3 Writing Systems
The sociolinguistics of written language, and its relationship to speech. The origin
and relitives 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: JAU136H
Prerequisite: LINA401H or (LINA01Y)
LINC3893 Language and Gender
An introduction to the research on differences between women and men in how they use language and how they behave in conversational interaction, together with an examination of the role of language in reflecting and perpetuating cultural attitudes towards gender. Exclusion: [JAE351H1] Prerequisite: [LINA020H1] or [LINA01Y1] or one credit in AN7, SOC or WST

LINC3461 Reading and Writing in a Second Language: Theoretical and Pedagogical Issues
An examination of theoretical and pedagogical 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. Exclusion: [LINC410H1] or [LINC41Y1] or [FREB500H1] or [FREB520H1]. Prerequisite: [LINC3461H] or [LINC3461Y] or one credit in PSY.

PLIC243H1 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: [LIP315H1]. Prerequisite: [One full credit in LINC or [FREB540H1] & [FREB540H1]].

PLIC343H1 Reading in a First or a Second Language
An examination of linguistic and psycholinguistic issues pertinent to reading, as well as the role of language writing and orthography in the learning process. This course is recommended for students enrolled in the Specialist Program in the Education of Teachers in French. Exclusion: [LINC410H1] or [LINC41Y1] or [FREB540H1] or [FREB540H1] or one credit in PSY.

PLC535H1 Psycholinguistics
Experimental evidence for theories of how humans produce and understand language, and of how language is represented in the mind. Topics include speech perception, word retrieval, use of grammar in comprehension and production, discourse comprehension, and the role of memory systems to language processing. Exclusion: [LIP315H1]. Prerequisite: One credit in LINC and one credit in PSY.

PLIDS35H1 Disorders of Speech and Language
Pathologies of language acquisition, comprehension and production. Topics include anatomy and physiology, voice disorders, articulation disorders, cloth palate, aphasia, apraxia, dysarthria, language delay, language learning.

Linguistics
See the Language and Linguistics section of this Calendar.

Management (B.B.A.)
Faculty List
S. Burton, B.A. (Harvard), M.P.P. (Kennedy School of Gov't), Ph.D. (Harvard), Professor
A. Alex, B.A., (Western), M.A.Sc. (Waterloo), Ph.D. (Toronto), Professor
J. Wei, B.Sc. (Harbin Inst. (China)), M.B.A. (York, Canada), Ph.D. (Toronto), Professor
J. Averbabch, M.Sc., Ph.D. (Montreal Institute of Physics & Technology), Associate Professor
S. Law, B.A. (Carleton), B.A. (Wilson College), M.S. (Bracknell), Ph.D. (Toronto), Associate Professor
F. Aggarwal, B.M.A., M.A. (Indira), M.B.A. (Chicago), Ph.D. (Chicago), Assistant Professor
K. Kim, B.A., M.B.A. (Korea), Ph.D. (Maastricht), Assistant Professor
J. McCarthy, B.A., M.A., Ph.D. (University of Western Ontario), Assistant Professor
D. Zweig, B.A., M.A.Sc. (Waterloo), Assistant Professor
S. Ahmad, B.Com., M.A. (Simon), M.B.A. (Concordia), Senior Lecturer
C. Bondare, B.A. (Queens), M.S. (Stirling), M.B.A. (Western), Senior Lecturer
S. Dug, B.A. (Waterloo), C.A. (CICA), Senior Lecturer
A. Sibarina, B.A. (Toronto), M.B.A. (York, Canada), C.M.A., Senior Lecturer
H. Chen, M.S.E. (U. Zurich), MBA (U. Toronto), PhD (U. Toronto), CGA, Lecturer
G. Quan Fan, B.A. (Toronto), C.A., C.M.A., Lecturer
P. Radhakrishnan, B.A. (Windsor), M.A. (Illinois), Ph.D. (Illinois), Lecturer

Chair: M. Kruzhkova
The design of curriculum in Management is guided by our mission statement, which follows: "The mission of the Department of Management at the University of Toronto Scarborough is to provide our students with the best pre-professional undergraduate management education in Canada. With special emphasis on our co-op model of education, we are to provide a coherent set of learning experiences that simultaneously teaches management skills and develops the capacity to think analytically about managerial, economic and societal problems and opportunities. Our faculty engages in nationally and internationally recognized research which advances the frontiers of knowledge, serves the interests of our community, and brings new insights to our students. We will improve our students' current and future experiences by building and maintaining close links with private and public sector organizations, by helping students to bridge the gap between education and employment, and by providing a continuing and lively connection among current and former students of the Department." The University of Toronto Scarborough offers the Bachelor of Business Administration degree to students who complete one of the Specialist Programs in Management. We also offer a Co-op version of the Management Program as well as a non-Coop 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 [MGT402Y or MGT403H and MGT404H] 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 enrolment: Because of pressures of demand for places, it has been necessary to place enrolment limits on most Management courses including those given in the summer session, and on admission to Programs. Information on how to apply for admission to a Program and to limited enrolment courses will be available prior to the end of classes in April.

Prerequisites: Students are responsible for ensuring that they have the prerequisites for all Management courses. Students who knowingly or unwittingly register for courses for which they do not have the necessary prerequisites will be denied access to these 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.

Admissions

Each year beginning in 2006 up to 420 students will be admitted to the Specialist Programs in Management including Co-operative studies. There are three possible ways to be admitted to the Specialist Programs. Students interested in Co-op should also refer to additional application information in the following Co-op Programs section.

1. Directly from Secondary School

Up to 250 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.

2. At the End of First Year

Applicants for the Specialist Programs in Management must have completed (or be in the process of completing) [MGT102Y or MGT103H & MGT104H], [ECMA202Y or ECMA203H & ECMA204H] and MATA22H1 (MATA22H1H and MATA22H2H recommended but not required to apply to Program). Taking a course in the Humanities or Social Sciences in first year is recommended.

3. Admission after First Year

Admission of students during second year (that is, until they have completed up to 10 FCEs) will also be on the basis of all grades received. Students who have completed more than 10 FCEs 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 100 places in the Specialist Programs (the number will rise to 176 in 2006-2007). Subject to enrolment 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.: [MGT402Y or MGT403H & MGT404H], MGB400H, MGB406H, [ECMA402Y] or [ECMA404H & ECMA408H], CSCA402H and MATA27H1.

Co-op Specialist Programs in Management and Information Technology: [MGT402Y or MGT403H & MGT404H], [ECMA404H & ECMA408H or (ECMA402Y) & [MATA309H (MATA310H & MATA311H)]

B.B.A.: [MGT402Y or MGT403H & MGT404H], [ECMA402Y or ECMA407H & ECMA408H], MATA22H1 [CSCA402H recommended, MGB400H and MGB406H allowed].

Taking a course in the Humanities or Social Sciences in first year is recommended.

Full Year/Trimester Programming

The Management Co-op Program operates on a trimester schedule, featuring three terms (Fall, winter and summer) in each calendar year. Students work or study in all three terms for four years or until graduation requirements are met. The Program requires eight four-month terms of study and three work terms. Students normally begin with three to five study terms (Fall, winter and summer), then alternate study and work terms. Students always conclude their degree with a study term.

Program Requirements

Curriculum

Co-op students will follow the course requirements specified in one of the Specialist in Management Programs with a co-op option (Management, Management and Humanities, Management and Information Technology, Management and Life Sciences, Management and Social Sciences). These programs are described later in this
Program Requirements

The program requires the completion of the following minimum requirements (14 FCEs) as part of a twentysix-credit degree.

1. At least 6 FCEs in courses which emphasize social work or have a social work component.
2. At least 3 FCEs in courses which emphasize cultural studies or have a cultural studies component.
3. At least 1 FCE in courses which emphasize environmental studies or have an environmental studies component.
4. At least 1 FCE in courses which emphasize humanities or have a humanities component.
5. At least 1 FCE in courses which emphasize economics or have an economics component.
6. At least 1 FCE in courses which emphasize management or have a management component.
7. At least 1 FCE in courses which emphasize accounting or have an accounting component.
8. At least 1 FCE in courses which emphasize human resource management or have a human resource management component.
9. At least 1 FCE in courses which emphasize marketing or have a marketing component.
10. At least 1 FCE in courses which emphasize public management or have a public management component.
11. At least 1 FCE in courses which emphasize strategic management or have a strategic management component.
12. At least 1 FCE in courses which emphasize specialist program or have a specialist program component.
2. ECMA60H, ECMA66H, ECMB202H, ECMB306H, [ECMB600Y or ECMB111H & ECMB121H]
3. MATA27H or [MATA35H & one of MATA35H, MATA50H, MATA37H]
4. CSCA20H (students familiar with the material in CSCA21H may substitute CSCA08H)
5. all of the requirements of one of the majors from the Department of Humanities
6. students may if they wish take up to one additional FCE from among the courses in MGT and ECM

Note: Items 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. Duga E-mail: management-supervisor-studies@utsc.utoronto.ca
This program which has a co-op option is designed to give students a broad exposure to all functional areas of Management as well as a solid grounding in Computer Science. Please see the section regarding work term requirements for specific details on courses required before each work term.

Program Requirements
The program requires completion of the following course requirements (16.5 FCEs) as part of a twenty-credit degree:

3. C-level courses: CSCA40H, CSCA41H, [CSCA63H or CSCA73H], MGTB04H, MGTB09H, MGTB14H, MGTB21H, MGTB27H
4. D-level courses: CSCD03H
5. Students may, if they wish, take up to one additional FCE from among the 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 the 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 Information Technology side of the program.

SPECIALIST PROGRAM IN MANAGEMENT AND LANGUAGE (FRENCH)
Supervisor: S. Duga E-mail: management-supervisor-studies@utsc.utoronto.ca
The Department of Management and the Department of Humanities offer 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 sixth requirement is waived.

Students are encouraged to take [MGTB12Y or MGTB13H & MGTB41H], ECMA40H & ECMA60H, CSCA02H, MATA27H and an appropriate course(s) in French in the first year.

Language requirements consist of five FCEs in French, made up of A. Basic Language, B. Business Language and C. Civilization, as follows:

FRENCH
1. FREB01H, FREB02H, FREB01H, FREB02H, and one full credit from among FREB01H, FREB02H, FREB05H
2. At least one FCE from among FREB01H, FREB02H, FREB01H, FREB02H
3. At least one half FCE from among FREB02H, FREB02H, FREB02H
4. An additional half FCE in French

The remaining courses needed to complete the degree requirement of 30 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. Duga 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 Life Sciences. Please see the section regarding work term requirements for specific details on courses required before each work term.

Program Requirements
The program requires the completion of the following minimum requirements as part of a twenty-credit degree:

1. [MGTB12Y or MGTB13H & MGTB41H], MGTB03H, MGTB04H, MGTB05H, MGTB06H, [MGTB07Y or MGTB23H & MGTB29H], MGTB20H, MGTB21H, MGTB27H, MGTB29H
2. ECMA40H, ECMA41H, ECMB021H, ECMB061H, [ECMB600Y or ECMB11H & ECMB121H]
3. MATA27H or MATA35H & MATA37H
4. CSCA08H (students familiar with the material in CSCA21H may substitute CSCA08H)
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 FCE from among the courses in MGT and ECM

Notes:
- 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.
- Because statistics is covered in ECMB11H and ECMB21H 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. Duga 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. Please see the section regarding work term requirements for specific details on courses required before each work term.

Program Requirements
The program requires the completion of the following minimum requirements as part of a twenty-credit degree:

1. [MGTB12Y or MGTB13H & MGTB41H], MGTB03H, MGTB04H, MGTB05H, MGTB06H, [MGTB07Y or MGTB23H & MGTB29H], MGTB20H, MGTB21H, MGTB27H, MGTB29H
2. ECMA40H & ECMA41H, ECMB021H, ECMB061H, [ECMB600Y or ECMB11H & ECMB121H]
3. MATA27H or MATA35H & MATA37H
4. CSCA08H (students familiar with the material in CSCA21H may substitute CSCA08H)
5. all of the requirements of one of the majors from the Department of Computer and Mathematical Sciences or the Department of Physical and Environmental Sciences
6. students may if they wish take up to one additional FCE from among the courses in MGT and ECM
Notes:
a) Items 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 6 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 Social 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.

SPECIAL PROGRAM IN MANAGEMENT AND SOCIAL SCIENCES
Supervisor: S. Ong
E-mail: management-supervision@tsc.utoronto.ca
This program 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. Please see the section regarding work term requirements for specific details on courses required before each work term.

Program Requirements
The program requires the completion of the following minimum requirements as part of a twenty-credit degree:
1. MGT@2XY or MGT@20H & MGT@4H1, MGT@30H, MGT@4H2, MGT@5H, MGT@6H, MGT@7H, MGT@8H, MGT@9H, MGT@10H, MGT@12H, MGT@14H
2. ECM@4H1, ECM@4H2, ECM@5H, ECM@6H, ECM@7H1, ECM@7H2, ECM@8H1, ECM@8H2, ECM@9H1, ECM@9H2, ECM@11H, ECM@11H1, ECM@11H2
3. MATLAB or [MAT@4H1 & one of MAT@3H1, MAT@4H1, MAT@4H2, MAT@5H1, MAT@5H2]
4. CSCA@2H (students familiar with the material in CSCA@2H may substitute CSCA@4H)
5. All of the requirements of one of the majors from the Department of Social Sciences.
6. Students may take up to one additional FCE from among the courses in MGT
7. ECM.

Notes:
a) Items 1, 2, and 5 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 Social Sciences program.
b) Because statistics is covered in ECM@1H and ECM@2H, and may also be required as part of the Social Sciences majors, students should be aware of exclusions in choosing their elective courses.

CERTIFICATE IN BUSINESS
Website: www.ssc.utoronto.ca/mgmt
The Department of Management also offers a Certificate Program for non-degree students. (See the Degrees section of this Calendar for details.) Non-degree students interested in this Certificate Program should visit the Department website.

NON-DEGREE STUDENTS IN MANAGEMENT AND ECONOMICS
Website: www.tsc.utoronto.ca/nmd
Non-degree students may be allowed to take individual courses as credits towards professional certification (for example in accounting or human resource management). 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 space after regular degree students in 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, as per the Department website listed above.

Careers in Accountancy
USC 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 C.A. 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 Scarborough courses are available from the Career Centre (416-287-7561).

MGT@4Y1 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 305 & 306 for students in Program), COM@10H1, MGMT@10H1, MGMT@10H2

MGT@A1H Introduction to Management
This course serves as an introduction to the process of management, including planning, organizing and the role of management within the broader business community. This course should be taken before any other MGT courses. Exclusion: MGT@7H1, COM@10H1, MGMT@10H1, MGMT@10H2

MGT@4B1H Introduction to Management
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 MGT@4H1. Exclusion: MGT@4Y1, COM@10H1, MGMT@10H1, MGMT@10H2

MGT@4H1H 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: Enrolment is limited to students registered in Programs requiring this course. Exclusion: MGT@12H1, MGT@22H1 & MGT@32H1, VPAB1H1
Pre-requisite: [ECMA@2Y2 or ECMA@2H1 & MGT@4H1] or [ECMA@4H1 & MGMT@1H1 or (ECMA@4Y2) & MGT@5H]

MGT@B0H 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: MGT@21H1, MGT@31H1
Pre-requisite: MGT@A1H1 or (MGT@A1H1 & MGMT@4H1)

MGT@B0H3 Financial Accounting I
Together with MGT@B0H4, 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: MGT@12H1, MGT@22H1, VPAB1H1
Pre-requisite: MGT@A2Y2 or (MGT@A1H1 & MGMT@4H1). Students admitted into the Management Program directly from high school and students registered in Programs requiring this course may take MGT@A2Y2 or (MGT@A1H1 & MGMT@4H1) concurrently.

MGT@B0H3 Financial Accounting II
This course is a continuation of MGT@B0H3. Students are encouraged to take it immediately after completing MGT@B0H3. Technical topics include the reporting and interpretation of debt and equity issues, owners' equity, cash flow statements and analysis. Through cases, choices of treatment and disclosures are discussed, and the development of professional judgment is encouraged. Exclusion: MGT@12H1, MGT@22H1, VPAB1H1
Pre-requisite: MGT@B0H3
MGTC23H3 Managing People in Organizations
An introduction to micro-organizational behaviour theories from both conceptual and applied perspectives. Students will examine a variety of theories and concepts to help them develop an understanding of the behaviour of individuals in all types of organizational settings. Topics covered include: individual differences, motivation and job design, work attitudes, decision making, leadership.
Exclusion: MGTR27Y, MGTR26H
Prerequisite: MGTA04Y or [MGTA03H & MGTA04H]

MGTR27Y3 Managing People and Groups in Organizations
An introduction to micro- and macro-organizational behaviour theories from both conceptual and applied perspectives. Students will develop an understanding of the behaviour of individuals and groups in different organizational settings. Topics covered include: individual differences, motivation and job design, organizational design, culture, and innovation, group dynamics and inter-group relations.
Exclusion: MGTR26H, MGTR23H, MGTR29H
Prerequisite: MGTA02Y or [MGTA03H & MGTA04H]

MGTR29H3 Managing Groups and Organizational Behavior
An introduction to the practical and theoretical aspects of micro-organizational behaviour. Building on MGTC23H, students will be introduced to theoretical and practical aspects of micro-organizational levels of behaviour that tackle management issues at group and organizational levels of analysis. Topics covered include: organizational design, culture, innovation, power and politics, group dynamics, and organizational change.
Exclusion: MGTR27Y, MGTR26H
Prerequisite: MGTR29H

MGTC02Y3 Introductory and Intermediate Finance
A treatment of concepts and analytical tools in financial management. Using the concept of time 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: MGTC33Y, MGTC33Y, MGTC03H, MGTC09H
Prerequisite: ECOM11H or ECOM09Y or (MGTR10H) & MGTR20H

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 certainty. Also covered are risk-return trade-offs, financial planning and forecasting, and long-term financing decisions.
Limited enrolment: 70
Exclusion: ACTB40H, MGTC02Y, (MGTC33Y), MGTC33T
Prerequisite: (ECMB09Y or ECOM11H or MGTR10H) & MGTR20H

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: (MGTC12H), MGTC12H
Prerequisite: MGTR30H

MGTC07H3 Intermediate Financial Accounting I
Together with MGTC08H, this course examines financial reporting in Canada. Through case analyses and the technical material covered, students will build on their knowledge gained in MGTR80H, MGTR80H, and, to a lesser extent, MGTR80H.
Limited enrolment: 60
Exclusion: MGTC22H, MGTC22H
Prerequisite: MGTC06H & MGTR80H
Consecutive: MGTC06H (either with this course or with MGTC08H)

MGTC08H3 Intermediate Financial Accounting II
This course is a continuation of MGTC07H. Students will further develop their case writing and technical skills and professional judgement through the study of several complex topics. Topics include leases, bonds, pensions, future taxes and earnings per share. Students must complete MGTC07H before attempting this course.
Limited enrolment: 60
Exclusion: MGTC22H, MGTC22H
Prerequisite: MGTC07H
Consecutive: MGTC06H (either with this course or with MGTC07H)

MGTC09H3 Intermediate Finance
This course covers mainstream finance topics. Besides a deeper examination of certain topics already covered in MGTC03H, 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, (MGTC33Y), MGTC33T
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 control structures and processes with some attention to multinational, service and non-profit organizations.
Limited enrolment: 60
Exclusion: MGTC07H
Prerequisite: MGTC07H & [MGTR23H & MGTR29H or MGTR27Y]

MGTC11H3 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: MGTC31H
Prerequisite: MGTC07H & [MGTR23H & MGTR29H or MGTR27Y]

MGTC12H3 Advertising: From Theory to Practice
An introduction to the basic communication tools used in planning, implementing and evaluating promotional strategies. The course reviews basic findings of the behavioural sciences dealing with perception, personality, psychological appeals, and their application to advertising as persuasive communication. Students will gain experience preparing a promotional plan for a small business. The course will rely on lectures, discussions, audiovisual programs and guest speakers from the local advertising industry.
Limited enrolment: 40
Exclusion: (MGTC13H)
Prerequisite: [MGTA03H & MGTA04H] or [MGTC04H]

MGTC15H3 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: MGTC14H, MGTC17H, MGTC42H, MGTC42H
Prerequisite: Completion of at least ten full-credit equivalents including [MGTC05H & MGTC06H] & MGTC03H.
MGTC17H is highly recommended.

MGTC16H3 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: MGTC15Y, MGTC42H
Prerequisite: Completion of at least ten full-credit equivalents including MGTC03H & MGTC06H & MGTC03H.
MGTC03H is highly recommended.
MGTC17HS 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: MGTC15Y, MGT429H
Prerequisite: MGTC16H

MGTC19HS 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 transferrable skills. The course examines what consultants do, and why organizations engage consultants.
Limited enrolment: 60
Prerequisite: MGTB03H & [MGTB23H & MGTB29H] or MGTB27Y

MGTC20HS Judgement and Decision Making
This course combines the elements of behavioral research as applied to consumer 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

MGTC22HS Human Resource Management
An introduction to current human resource practitioners in Canada, emphasizing the role of Human Resource Management in enhancing performance, productivity and profitability of the organization. Topics include recruitment, selection, training, career planning and development, diversity and human rights issues in the workplace.
Limited enrolment: 60
Exclusion: MGT406H
Prerequisite: [MGTB23H & MGTB29H] or MGTB27Y

MGTC23HS Diversity in the Workplace
Examines the nature and effects of diversity in the workplace. Drawing on theories and research from psychology, the course will examine topics like stereotyping, harassment, discrimination, organizational climate for diversity, conflict resolution within diverse teams, and marketing to a diverse clientele.
Limited enrolment: 40
Prerequisite: [MGTB23H & MGTB29H] or MGTB27Y

MGTC24HS Managerial Skills
This course deals with the development of managerial skills. It provides opportunities for students to develop skills related to the conceptual knowledge addressed in earlier courses. The objective is to improve students' own personal management competencies in areas such as interpersonal relations, decision making, problem solving, motivating, leading, and teamwork.
Limited enrolment: 40
Exclusion: MGTB24H
Prerequisite: [MGTB23H & MGTB29H] or MGTB27Y

MGTC31HS The Legal Environment of Business I
An introduction to the Canadian legal system and its effects on business entities. The course includes an examination of the Canadian court structure and a discussion of the various forms of business ownership, tort law, contract law, and property law.
Limited enrolment: 60
Exclusion: MGT39H
Prerequisite: Completion of at least ten full-credit equivalents including [MGTB05H & MGTB05F] or [MGTB02Y]

MGTC32HS The Legal Environment of Business II
This course further examines the issues raised in Legal Environment of Business I. It focuses on relevant areas of law that impact business organizations such as consumer protection legislation and agency and employment law, and it includes a discussion of laws affecting secured transactions and commercial transactions.
Limited enrolment: 60
Exclusion: MGT39H
Prerequisite: MGTC31H

MGTC33HS Event and Sponsorship Management
Event and Sponsorship Management involves the selection, planning and execution of specific events as well as the management of sponsorship rights. This will involve the integration of management skills, including finance, accounting, marketing and organizational behaviour, required to produce a successful event.
Limited enrolment: 60
Prerequisite: Completion of at least 10 full-credit equivalents in the D.B.A. program

MGTC35HS Narratives on Management and Organization
Through the analysis of works of fiction and non-fiction dealing with managers in both private and public sector organizations, the course explores the ethical dilemmas, organizational politics and career choices that managers can expect to face.
Limited enrolment: 75
Prerequisite: [MGTB23H & MGTB29H] or MGTB27Y

MGTC36HS Management Communications
In this course students will learn skills and techniques to communicate effectively in an organization. Creativity, innovation and personal style will be emphasized. Students will build confidence in their ability to communicate effectively in every setting. Those completing this course will experience a high degree of personal satisfaction.
Limited enrolment: 40
Prerequisite: [MGTB23H & MGTB29H] or MGTB27Y

MGTC38HS Entrepreneurship
This course focuses on the skills required and issues - personal, financial, sales, operational, personal - 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: MGT49Y
Prerequisite: [MGTB27Y or MGTB29H] & MGTB39H & [MGTB23H & MGTB29H or MGTB27Y]

MGTC39HS New Venture Creation and Planning
Aimed at students interested in launching their own entrepreneurial venture. The core of the course is the development of a complete business plan which details the student's plan for the venture's initial marketing, finance and growth. This course provides a framework for the evaluation of the commercial potential of business ideas.
Prerequisite: [MGTB23H & MGTB29H or MGTB27Y] & MGTG38H

MGTC40HS Management Policy and Strategy
Begin with an examination of the concept of business mission. Students are then challenged to evaluate the external and industry environments in which businesses compete, to identify sources of competitive advantage and value creation, and to understand and evaluate the strategies of active Canadian companies.
Limited enrolment: 60
Exclusion: MGTA45H, VPAE53H
Prerequisite: [MGTA2Y or MGTA3H & MGTA4H] & [MGTB29H or MGTB27Y] & [ECMB03H or ECMB04H]

MGTC42HS Public Management
An introduction to key public sector management processes - planning, budgeting, human resource management - and to the New Public Management. Special emphasis on applications of information technology to service delivery and governance. Makes use of cases, and simulations to develop management skills in a public sector setting.
Limited enrolment: 35
Prerequisite: [MGTB23H or MGTB27Y] or [POLB15H & POLB22H or POLB25Y]

MGTC43HS International Business Management
This course deals with problems faced by managers of international business, such as development of a global business strategy, location of operations, dealing with local cultures in marketing and human resource management, and negotiations with host governments.
Limited enrolment: 60
Exclusion: MGTA45H
Prerequisite: [MGTA2Y or MGTA3H & MGTA4H] & [MGTB23H & MGTB29H or MGTB27Y]
MGTC503H3 Business Negotiation

An introduction to the theory and practice of negotiation in business. This course develops approaches and tactics to use in different forms 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
Prerequisite: [LEAD20Y or [MGA03H3 & MGT04H1]]

MGTC530H3 Introduction to Industrial Relations

An overview of the industrial system and labor relations. The course will introduce students to: industrial relations theory, the role of unions and management, labor, 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
Prerequisite: Completion of at least ten full-credit equivalents including [ECMA01H & ECMA03H] or [ECMA02H] & [ECMA04H] & [ECMA05] & [MGT02Y] & [MGT04H]

MGTC535H2 Planning and Budgeting for Public Institutions

The theory and practice of planning and resource allocation in public institutions. The course will illustrate these 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: MGTC03H1

MGTC550H3 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: MGTC03H1

MGTC590H3 Management Ethics

Increasingly, the marketplace has come to demand - 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: PHL204H1
Prerequisite: [MGT02Y or [MGA01H3 & MGT04H1]]

MGTC741H3 Introduction to Derivatives Markets

This course introduces students to the fundamentals of derivatives markets covering futures, swaps, options and other financial derivative securities. Detailed descriptions of, and basic valuation techniques for popular derivative securities are provided. As each type of derivative security is introduced, its applications in investments and general risk management will be discussed.

Limited enrolment: 50
Exclusion: MGTC30H1
Prerequisite: [ECMB11H or ECMB20Y] & [MGTA03H or MGTC02Y]
Corequisite: MGTC09H

MGTC743H3 Analysis for Decision-Making

An introduction to the applications of Management Science in decision-making situations involving organizations like manufacturing, service and non-business institutions. Topics include linear programming, integer programming, transportation, assignment and transshipment problems; waiting line models; and decision analysis. Many of the techniques learned will involve determining an optimal decision subject to various constraints.

Limited enrolment: 60
Prerequisite: [MAT20H3 & ECMB02H1 & ECMB11H or ECMB20Y] & [ECMB20H]

MGTC750H3 Operations Management: A Mathematical Approach

Introduction to the broad scope and major strategic, tactical, and operational decisions. Topics include: forecasting, long-range capacity planning, location and layout of facilities, aggregate planning, project management, inventory control, and production scheduling.

Limited enrolment: 60
Exclusion: MGTC090H, MGTC34H
Prerequisite: MGTC74H1

MGTC760H3 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: [CSCA02H] & [MGTC04H]
Exclusion: MGTC701H, MGTC707H, MGTC709H

MGTC797H3 Market Research

A decisions 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 empirical considerations in design and execution of market research are stressed. Introduction involves lectures and projects including computer analysis.

Limited enrolment: 40
Exclusion: MGTC40H1
Prerequisite: [ECMB11H or ECMB20Y] & [MGTA03H or MGTC02Y]
Corequisite: MGTC09H

MGTD107H3 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: [MGTC03H1 & MGTA04H1] or [MGTA02Y] & [MGTC04H]

MGTD108H3 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: [MGTC33H & MGTC29H] & [MGTB27Y] & [MGTC24H] & [MGTC04H]

MGTD115H3 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 litigation.

Limited enrolment: 30
Prerequisite: MGTC52H

MGTD202H3 Marketing Management

This course builds on the introductory course in marketing and takes a pragmatic approach to develop the analytical skills required of marketing managers. The course is designed to help improve skills in analyzing marketing situations, identifying market opportunities, developing marketing strategies, making concise recommendations, and defending these recommendations.

Limited enrolment: 40
Exclusion: MGTC40H1, MGTC33H
Prerequisite: MGTB04H1 or MGTC04H1 & MGTA05Y or MGTC02Y & [MGTA03H or MGTC02Y]
Corequisite: MGTC09H

MGTD203H3 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: [MGTC03H1 & MGTA04H1] or [MGTA02Y] & [MGTC04H]

MGTD108H3 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: [MGTC33H & MGTC29H] & [MGTB27Y] & [MGTC24H] & [MGTC04H]

MGTD115H3 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 litigation.

Limited enrolment: 30
Prerequisite: MGTC52H

MGTD202H3 Marketing Management

This course builds on the introductory course in marketing and takes a pragmatic approach to develop the analytical skills required of marketing managers. The course is designed to help improve skills in analyzing marketing situations, identifying market opportunities, developing marketing strategies, making concise recommendations, and defending these recommendations.

Limited enrolment: 40
Exclusion: MGTC40H1, MGTC33H
Prerequisite: MGTB04H1 or MGTC04H1 & MGTA05Y or MGTC02Y & [MGTA03H or MGTC02Y]
Corequisite: MGTC09H
MGTD24H3 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: MGTG22H

MGTG24H3 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: [MGTG23H & MGTG29H] or [MGTG27Y] & [MGTG24H] or [MGTG24H]

MGTG25H3 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: MGTG22H

MGTG27H3 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: 40
Prerequisite: MGTG22H

MGTG28H3 Advanced Accounting Case Analysis
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 CICA's CA Competency Map. Issues include Corporate Governance, Revenue Recognition, Off-Balance Sheet Risks and Financial Instruments.
Limited enrolment: 40
Prerequisite: MGTG20H & MGTG20H

MGTG29H3 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: MGTG20H

MGTG30H3 Advanced Financial Accounting
An in-depth study of advanced financial accounting topics: long-term inter-corporate investment consolidation (including advanced measurements and reporting issues), foreign currency translation and consolidation of foreign subsidiaries and non-profit and public sector accounting. This course is critical to the education of students preparing for a career in accounting.
Limited enrolment: 60
Prerequisite: MGTG30H & MGTG30H

MGTG31H3 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: MGTG30H & MGTG30H

MGTG35H3 Advanced Accounting Case Analysis
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 CICA's CA Competency Map. Issues include Corporate Governance, Revenue Recognition, Off-Balance Sheet Risks and Financial Instruments.
Limited enrolment: 40
Prerequisite: MGTG20H & MGTG20H

MGTG36H3 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: MGTG20H

MGTG37H3 Advanced Auditing
An extension of the study of areas covered in the introductory audit course and will include the application of risk and materiality to more advanced topics such as pension and comprehensive auditing. Other topics will include special reports, future-oriented financial information and projections. This will include a review of current developments and literature.
Limited enrolment: 60
Exclusion: MGTG36Y
Prerequisite: MGTG36H

MGTG38H3 Auditing in a Computer Environment
An examination of the problems related to auditing computer system-generated financial data, including consideration of risks and exposure, evaluation of controls and audit strategy development. Attention will also be given to computer-assisted audit techniques.
Limited enrolment: 60
Exclusion: MGTG36Y
Prerequisite: MGTG36H

MGTG39H3 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
Exclusion: MGTG330H
Prerequisite: MGTG30H or MGTG32Y
above average. Students interested in these courses should consult with the Supervisor of Studies for Management well in advance.

Students must obtain consent from the supervising instructor and the Department of Management before registering in these courses.

Mathematics

(B.Sc.)

Faculty List

I.W. Eells, Ph.D. (Hamburg), Professor Emeritus
R.W. Sharpe, M.Sc., Ph.D. (Yale), Professor Emeritus
J. Fremlin, M.A. (Waterloo), Ph.D. (Penn. State), F.R.S.C., University Professor
R.O. Buchweitz, Ph.D. (Hannover), Professor
M. Goldstein, Ph.D. (Tashkent), Professor
L.C. Jeffrey, A.B. (Princeton), M.A. (Cambridge), D. Phil. (Oxford), Professor
E. Mendelssohn, B.Sc, M.Sc. (Maribor), Ph.D. (McGill), Professor
P. Selick, B.Sc., M.Sc., Ph.D. (Princeton), Professor
P. Sastry, Ph.D. (Purdue), Associate Professor
J. Scherk, D.Phil. (Oxford), Associate Professor
A. Brzezinski, Ph.D., Assistant Professor
B. Ving, Ph.D. (Berkeley), Assistant Professor
N. Cherednichenko, M.Sc (Kharkov), Ph.D. (Moscow), Senior Lecturer
E. Moore, M.A. (Montréal), Ph.D. (Toronto), Senior Lecturer
S.C. Trybom, M.Sc. (Toronto), Senior Lecturer
R. Grinell, Ph.D. (Queens), Lecturer
X. Jiang, B.Sc., M.Sc. (PhD.) (Glasgow), Lecturer
G. Tudose, B.Sc, M.Sc(Bucharest), Ph.D(Vork), Lecturer

Mathematics began in the ancient Mesopotamian civilizations. The Babylonians already knew much of the mathematics taught traditionally in our schools. Their algorithm and geometry was perhaps 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 Specialized Program in Mathematics and in Mathematics and Applications is available for students in the Cooperative 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 AND ITS APPLICATIONS

Supervisor of Studies:
Until June 30, 2006: E. Moore (416-287-7267) Email: emoore@uwaterloo.ca
From July 1, 2006: S. Trifonova (416-287-7254) Email: stefana@uwaterloo.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:

ANTA20H1, ANTA20H3, GGRA20H3, GGRA20H5, GGRA20H6, HLT2A0H1, CLA42H3, ENCA1H1, ENCA1H3, ENCA9H1, ENCA9H3, ENGB1H1, ENGB1H3, ENGB1H5, ENGB1H7, HLA2A1H1, HLA2A1H3, HLA2A1H5, HLA2A1H7, LGGA1H1, LGGA1H3, LGGA1H5, LGGA1H7, LGGA9H1, LGGA9H3, LGGA9H5, LGGA9H7, PHPA1H1, PHPA1H3, PHPA1H5, WSTA2H1, WSTA2H3

Program Requirements

Core for all program streams:
1. (2.0 full credit equivalency):
   - [CSCA48H1 Introduction to Computer Science](#)
   - [PSCB37H1 Introduction to Scientific Computing](#) (if PSCB37H1 is selected, it should be taken in second year)

   1. MATB12H1 Linear Algebra I
   2. MATB32H1 Calculus I (OAC)
   3. MATB34H1 Calculus II for Physical Sciences (recommended)
   4. MATB37H1 Calculus II for Mathematical Sciences (recommended)

   2. (2.5 FCE)

   1. MATB42H1 Linear Algebra II
   2. MATB43H1 Techniques of the Calculus of Several Variables I
   3. MATB43H1 Techniques of the Calculus of Several Variables II
   4. MATB45H1 Introduction to Analysis
   5. MATB46H1 Differential Equations I
   6. MATB47H1 Differential Equations II

   3. (1.0 FCE)

   1. STAB2H1 An Introduction to Probability**
   2. STAB37H1 An Introduction to Statistics**

   4. (0.5 FCE)

   1. MATC1H1 Groups and Symmetry
   2. MATC34H1 Complex Variables

   * PSCB37H1 is required for the Computational Physical Sciences stream.

   ** STAB25H1 and STAB37H1 must be taken in second year for the Statistics stream.

AREAS OF CONCENTRATION:

Teaching Streams:
1. (2.0 FCE)

   1. MATC32H1 Fields and Groups
   2. MATC33H1 Introduction to Number Theory
   3. MATC35H1 Classical Plane Geometry and their Transformations
   4. MATC36H1 Graph Theory and Algorithms for its Applications

   2. MATC44H1 Introduction to Combinatorics

Program Requirements

This program requires eight full credits.

1. Core Courses:

   1. [CSCA48H1 Introduction to Computer Science](#)
   2. [PSCB37H1 Introduction to Scientific Computing](#)

   2. MATB12H1 Linear Algebra I

   3. MATB32H1 Calculus I (OAC)

   4. MATB34H1 Calculus II for Physical Sciences (recommended)

   5. MATB37H1 Calculus II for Mathematical Sciences (recommended)

   6. (2.5 FCE)
2. (1.5 FCE): Three of: 
- MATB4H1 Linear Programming and Optimization 
- MATC94H1 Introduction to Mathematical Logic 
- MATC18H1 Coding Theory and Cryptography 
- MATC55H3 Chaos, Fractals and Dynamics 
- MATG71H3 (MATG35H3) Introduction to Real Analysis 
- MATG48H3 Differential Equations II 
- MATG35H3 Differential Geometry I 
- MATG35H3 Complex Variables II 

3. (2.0 FCE): Four C- or D-level CSC, MAT or STA half-credit courses 

4. (0.5 FCE): 
- PSCD02H1 Current Questions in Mathematics and Science 
- or 
- CSCD03H1 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 PSCD03H1.

Statistics Stream: 
1. (2.5 FCE): 
- MATB4H1 Linear Programming and Optimization 
- MATC22H3 Applied Statistics 
- MATC25H3 Classical Plane Geometries and their Transformations 
- MATC48H3 Differential Equations II 
- STAC27H3 Regression Analysis 

2. (1.0 FCE): Two of: 
- MATC35H1 Chaos, Fractals and Dynamics 
- MATC37H1 (MATC38H1) Introduction to Real Analysis 
- MATG35H1 Complex Analysis I 

3. 2.6 FCEs from ACTB47H3, C-level STA courses and 300- and 400-level STA courses on the St. George campus 

4. (0.5 FCE): 
- PSCD02H1 Current Questions in Mathematics and Science 
- or 
- CSCD03H1 Social Impact of Information Technology 

Computational Physical Sciences Stream: 
1. (1.0 FCE): 
- ASTA01H3 Introduction to Astronomy and Astrophysics I: The Sun and Planets 
- ASTA02H3 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets 
- CSCC35H3 Numerical Algebra and Optimization 
- CSCC35H1 Numerical Approximation, Integration and Ordinary Differential Equations 
- MATG35H1 Linear Programming and Optimization 
- MATG35H3 Chaos, Fractals and Dynamics 
- MATG48H1 Introduction to Combinatorics 
- MATG48H3 Differential Equations II 

2. (0.5 FCE): Three of: 
- PHYB21H3 Electricity and Magnetism 
- PHYB24H3 Introduction to Quantum Physics 
- PHYB20H3 Vibration and Waves 
- ASTB21H1 Solar System and Stellar Astrophysics 
- ASTC22H1 Galactic and Extragalactic Astrophysics 

3. (0.5 FCE): One of: 
- CSCD13H3 Computer Graphics 
- MATC45H3 Complex Variables II 
- MATD94H1 Readings in Mathematics 
- MATG95H3 Readings in Mathematics 
- [PSCD02H1 Current Questions in Mathematics and Science 
- or 
- CSCD03H1 Social Impact of Information Technology] 

Computer Science Stream: 
See joint Mathematics stream in the Computer Science Specialist Program.

Design Your Own Stream: 
1. (0.5 FCE): 12 half-credit courses chosen with the approval of the program supervisor for Mathematics and Its Applications. 

2. (0.5 FCE): 
- PSCD02H1 Current Questions in Mathematics and Science 
- or 
- CSCD03H1 Social Impact of Information Technology 

STUDENT PROGRAM IN NATURAL SCIENCES
(See the Physical Sciences Scarborough section of this Calendar.) 

MATA69H3 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 MATA69H3 will be accepted as the prerequisite for MATA27H1 or MATA30H1. 
Exclusion: High school calculus 
Prerequisite: Solid background in high school mathematics 

MATA25H3 Linear Algebra I 
Systems of linear equations, matrices, Gaussian elimination; vector spaces, basis, dimensions; inner product spaces, geometry in R^n, linear transformations; determinants, Cramer's rule; eigenvalues and eigenvectors, diagonalization; orthogonal transformations. 
Exclusion: MATG32H3 
Prerequisite: Grade 12 Advanced Functions and Introductory Calculus & Geometry and Discrete Mathematics or [DAC Calculus & OAC Algebra and Geometry] 

MATA27H1 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 calculation 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. 
Exclusion: (MATA26Y1, (MATA29Y1), (MATA24H1), (MATA25H1), (MATA30H1), (MATA31H1), (MATA32H1), (MATA33H1), (MATA34H1), (MATA35H1), (MATA36H1), (MATA37H1), (MATA38H1), (MATA39H1), (MATA315Y), (MATA317Y), (MATA319Y), (MATA320Y) 
Prerequisite: OAC Calculus or Grade 12 Advanced Functions and Introductory Calculus
### MAT236H1 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. Exclusion: MAT235Y, MAT237Y, MAT240Y, MAT240Y, MAT240Y, MAT240Y

Prerequisite: MAT235H, MAT237H

### MAT237Y1 Calculus II for Mathematical Sciences


Prerequisite: MAT230H or MAT231H

### MAT240Y1 Techniques of the Calculus of Several Variables

Fouier series, Vector fields in $\mathbb{R}^n$, Divergence and curl, curves, parametric representations of curves, path and line integrals, surfaces, parametric representations of surfaces, surface integrals. Green's, Gauss's, and Stokes' theorems will also be covered. An introduction to differential forms, total derivative. Exclusion: MAT235Y, MAT237Y, MAT257Y

Prerequisite: MAT241H

### MAT243H1 Introduction to Analysis

Calculus revisited rigorously: properties of real numbers, limits, compactness, topology of Euclidean space, continuity, differentiability, fundamental theorem, Riemann integral. Exclusion: MAT246Y

Prerequisite: MAT237H or MAT31H

### MAT244H1 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: MAT241H

Prerequisite: MAT241H or MAT242H
MATC 151H 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: MAT 235H 
Prerequisite: [MAT 136H or MAT 137H or (MAT 126Y) & MAT 126H]

MATC 158H Coding Theory and Cryptography
The main problems of coding theory and cryptography are defined. Classical 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 log algorithms based systems. Need of mathematical results from number theory, finite fields, and complexity theory are stated. 
Prerequisite: MAT 248H & STAB 521H 
Corequisite: MAT 258H recommended

MATC 259H 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: [MAT 135H] 
Prerequisite: MAT 123H 
Corequisite: MAT 259H

MATC 370H Introduction to Topology
Exclusion: MAT 372H 
Prerequisite: MAT 248H & MAT 249H

MATC 329H Graph Theory and Algorithms for its Applications
Graphs, subgraphs, isomorphism, trees, connectivities, Euler and Hamiltonian properties, matchings, vertex and edge colourings, planarity, network flows and strongly regular graphs; applications to such problems as timetabling, personnel assignment, tank farm scheduling, traveling salesmen, tournament scheduling, experimental design and finite geometries. 
Prerequisite: [MAT 234H or CSC 361H or (CSC 383H)] & at least one other B-level course in Mathematics or Computer Science

MATC 343H 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: MAT 343H 
Prerequisite: MAT 249H

MATC 353H Chaos, Fractals and Dynamics 
Topics covered include: metric spaces, dynamics on the real line, fixed points, periodic points, attractors, repellors, Sharkovskii's theorem parameterized 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, functions of rational functions, Julia sets, and the Mandelbrot set. 
Exclusions: MAT 335H 
Prerequisite: MAT 243H

MATC 353H Introduction to Real Analysis
Exclusions: MAT 237H, MAT 333H 
Prerequisite: MAT 249H

MATC 353H Introduction to Real Analysis
Exclusions: MAT 237H, MAT 333H 
Prerequisite: MAT 249H

MATC 355H Complex Variables II
Applications of complex analysis to geometry, physics and number theory. Fractional linear transformations and the Riemann mapping theorem. 
The prime number theorem. 
Exclusion: MAT 354H 
Prerequisite: MAT 343H

MATD 101H
MATD 111H
MATD 124H Topics in Mathematics
A variety of topics from geometry, analysis, number theory and algebra, to be chosen by the instructor. 
Prerequisite: MAT 301H & [MAT 335H or MAT 337H] & [MAT 351H or (MAT 202H)]

MATD 94H
MATD 95H Readings in Mathematics 
Independent study under direction of a faculty member. 
Prerequisite: MAT 301H & [MAT 335H or MAT 337H] & [MAT 351H or (MAT 202H)]

Music
See the Virtual and Performing Arts section of this Calendar.

Neuroscience (B.Sc.)
Faculty List:
K. Boonstra, B.Sc. (Calgary), Ph.D. (British Columbia), Professor
L. E. Brown, B.Sc. (Carleton), Ph.D. (Texas), Professor
J. W. Gurd, B.A. (Mount Allison), Ph.D. (McGill), Professor
G. O. Ivy, B.A. (Dartmouth), Ph.D. (California), Professor
W. A. Milgram, B.A. (UCLA), M.A., Ph.D. (McGill), Professor
T. L. Patti, B.Sc., M.A. (Louisiana), Ph.D. (Florida), Professor
K. K. Z. Zakarias, B.A., M.A., Ph.D. (York), Associate Professor
S. Ehr, B.Sc. (Wilfrid Laurier, M.A. (Concordia), Ph.D. (Concordia), Assistant Professor
A. C. Mason, B.Sc. (Queen's), M.Sc., Ph.D. (Toronto), Assistant Professor
J. E. Nash, B.Sc. (Abbotsford), M.Sc., Ph.D. (University of Manchester), Assistant Professor
D. Neubauer, B.A. (Hons.), M.A. (York), Ph.D. (Waterloo), Assistant Professor
J. C. LeBoustier, 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 zoology are used to unravel some of the mysteries of the brain and its mechanisms of action. Investigators in Neuroscience have also made fundamental contributions to clinical aspects of 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 Neurosciences 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.

Admission to Neuroscience Programs

Beginning with the 2007 Summer Session, the Specialist and Major programs in Neuroscience will be limited. Students will apply to the program after completing a minimum of 4.0 FCEs (full course equivalents), including 1.0 FCE in Biology, 1.0 FCE in Chemistry, and 1.0 FCE in Psychology. Admission will be based on cumulative grade point average with a 2.8 or greater 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 will be made to the Registrar through ROSTL, in April/May and July/August.

Neuroscience courses

Priority access to Neuroscience courses will be given to Major and Specialists in Neuroscience programs and other programs requiring these courses. During the first two weeks of Fall/Winter registration, the courses will be restricted to these students. Provided space is available, the courses will be opened to other students in the third week.

First-Year Students in Neuroscience

BGYA00H, BGYA01H, CHMA10H, CHMA11H, 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: D. Nassbaum  Email: draasbaum@uwaterloo.ca

Program Requirements

The Program requires completion of 12.5 full-credit equivalents (FCEs): (1.0 FCEs:)

1. The following 3 FCEs:
   - BGYA08H Introductory Biology: Part I
   - BGYA09H 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 4.5 FCEs:
   - BGYB14H Cell Biology
   - BGYB17H Molecular Aspects of Cellular and Genetic Processes
   - [BGYR08H Mammalian Physiology I or (NR0B35H) Animal Physiology]
   - BGYB33H Animal Physiology Laboratory

3. The following 3.5 FCEs:
   - BGYC12H Biochemistry I: Proteins & Enzymes
   - BGYC13H Biochemistry II: Bioenergetics & Metabolism
   - NROC34H Neurobiology (Motorneurite Neurobiology)
   - NROC36H Neuroscience II: Learning & Motivation
   - NROC38H Neuroscience Laboratory
   - NROC39H Neuroscience III: Sensory & Motor Systems
   - PSYD08H 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)
   - BGYC21H Vertebrate Histology: Cells and Tissues
   - BGYD16H Topics in Cellular and Molecular Neurobiology
   - BGYD24H Vertebrate Endocrinology
   - BGYM45H Animal Communication
   - NROC35H Developmental Neurobiology
   - NROC69H Synaptic Organization of the Brain
   - NROC69T Supervised Study in Neuroscience
   - NROD04H Current Topics in Neuroscience
   - NROD31H Advanced Neuroscience Laboratory
   - NROD35H Pathologies of the Nervous System
   - NROD37H Psychobiology of Aging
   - NROD99Y Thesis in Neuroscience

SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE

Supervisor of Studies: D. Nassbaum  Email: draasbaum@uwaterloo.ca

The Neuroscience Co-operative program is designed to provide the student with a broad education in neuroscience, including neuroanatomy, neurophysiology, behaviour, psychology, biochemistry, cell and molecular biology and data analysis through lectures, lecture/lab and intensive laboratory courses.

The program combines academic studies in the field of neuroscience with practical work experience in settings in which scientific knowledge from various subfields in the discipline is applied. Students may apply for work term employment in settings such as research and development departments in industry, educational institutions, health care institutions and government agencies.

The work experience provided by the program enables students to explore career opportunities that may be pursued following the Bachelor's degree. Work settings may also provide students with the opportunity to observe neuroscientists interacting with other professionals, hence providing a broader and more informed basis for the selection of a postgraduate 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.
Biology 244H Vertebrate Endocrinology
BIOG 243H Animal Communication
NROCS 343H Neuroethology (Vertebrate Neurobiology)
NROCS 351H Developmental Neurobiology
NROCS 531H Neuroscience Laboratory
NROCS 901H Synaptic Organization of the Brain
NROCS 903H Supervised Study in Neuroscience
NROCS 906H Current Topics in Neuroscience
NROCS 908H Advanced Neuroscience Laboratory
NROCS 905H Pathologies of the Nervous System
NROCS 967H Psychology of Aging
NROCS 984Y Thesis in Neuroscience
PSYC 518H Clinical Neuro-psychology
PSYC 622H Drugs and the Brain,
PSYD 535H Current Topics in Abnormal Psychology

NROCS 659H 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.
(Ch 10 & 14): strongly recommended for students with no Chemistry background).
Exclusions: PSY 301H, PSY 302H, ZOO 322H *
Prerequisite: [BYA 011H & BYA 021H] or [PSY 301Y] or [PSY 302Y] or [PSY 301Y]

NROCS 243H Neuroethology
Neural basis of natural behavior;
Innate function of the nervous system;
Motor and sensory systems; mechanisms of decision-making, initiating action, co-ordination, learning and memory. Topics 
may vary from year to year.
Prerequisite: BYO 301H or BYO 302H or
NROCS 351H Developmental Neurobiology
An examination of the development of the nervous system with emphasis on cellular and molecular mechanisms.
Topics will include differentiation of neural cells, migration of neurites, pathfinding, synaptogenesis and the
arrangement of neuronal connections.
Offered in alternate years with 
BYO 346H. 
Prerequisite: [BYO 311H & BYO 301H] or [BYO 321H] or [BYO 320H] or
NROCS 311H Neuroscience II: Learning and Motivation
Topics cover 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 cell and molecular basis of learning and memory.
Prerequisite: NROCS 659H plus one other 
B-level half-credit in PSY

NROCS 339H Neuroscience Laboratory
Instruction in a variety of techniques 
used in investigations of nervous system function.
Behavioral techniques, neurological 
manipulation, perfusions, histology, 
animal ethics and the preparation of 
neurological papers will be covered. 
Priority will be given to students 
enrolled in the Neuroscience Specialist's 
Program (Co-op and Non-co-op)
Limited enrollment: 20
Exclusions: PSY 399H
Prerequisite: [PSY 301H] or [STAB 221H] &
NROCS 659H
NRC06493 Neuroscience 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: PSY290H
Prerequisites: NRO0560H

NRC06913 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: NRO0560H

NRC0690H NRO0693 Supervised Study in Neuroscience

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 the student and instructor. Frequent consultation with the supervisor is necessary, and necessary library, research 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 (S221B) 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 UTSC.

Exclusion: PSY390H
Prerequisites: NRO0691H & NRO0694H

NRO0694H Current Topics in Neuroscience

An intensive examination of selected issues and research problems in the Neurosciences. Exclusion: PSY390H
Prerequisite: NRO0691H & NRO0694H

NRO0695H Advanced Neuroscience Laboratory

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: PSY390H
Prerequisites: NRO0691H
Corequisite: NRO0691H & PSY390H

NRO0696H Pathologies of the Nervous System

An intensive examination of selected pathologies affecting the nervous system, such as Alzheimer and Parkinson disease, multiple sclerosis, stroke, the epilepsies, various infectious agents, and others. These pathologies will be examined from an integrative perspective encompassing the pathogenesis, resulting behaviours, and current treatments and therapies. Limited enrolment: 20
Prerequisites: NRO0691H, PSY065H & C-level NRO course.
Corequisite: NRO0691H

NRO0673H Psychobiology of Aging

This course will characterize various anatomic, biochemical and physiological changes that occur in the nervous system with age and will explore the association between these changes and cognitive deterioration. We will examine several age-related disease states and evaluate the validity of current theories and experimental models of aging in depth. Limited enrolment: 20
Prerequisites: NRO0691H & [NRO0611H or NRO0648H]
Corequisite: NRO0691H

NRO06973 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-instructor to present their own research proposals, to appraise 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 (S221B) 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 UTSC.

Exclusion: PSYD90Y, PSY0620Y
Prerequisites: Satisfactory completion of fifteen full-credit equivalents in any discipline; but including PSY060H 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

K. Liddic, B.A. (Oberlin College, Ohio), M.A. (Auburn University, Alabama), Ph.D. (Emory University, Atlanta), Assistant Professor
M. Maltman, B.A. (Dalhousie), Ph.D. (London), Assistant Professor
L. Chan, B.A., M.A., Ph.D. (Alb) (Toronto), Senior Lecturer
D. Hlynysy, B.F.A. (Ohio State), Lecturer

MAJOR (JOUR) PROGRAM IN NEW MEDIA STUDIES

Supervisor of Studies: L. Chan Email: chann@utsc.utoronto.ca

A highly interdisciplinary program, New Media Studies explores the effects of digital technology on traditional forms of media as well as how new forms of cultural representations are created, consumed, and shared. A unique Joint Program between UTSC and Centennial’s Centre for Creative Communication (CCC), this program allows students to get the best of both worlds – the academic research strength of UTSC and the industry experience and reputation of the CCC. In this Joint Program, students have to master the techniques necessary to create new media, but more importantly, to learn about the theories and practice of using these media to achieve desired purposes within their academic programs.

This program may be taken in partial fulfilment 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.

Program Admission

Limited enrolment.

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 UTSC will be considered for admission after completing 4 full credits. Students must request the program in BOSI by the appropriate deadline and submit Supplementary Application Form and portfolio to the program supervisor by the same deadline.
5. New Media Group 1 — students will be eligible to enrol in these courses after successfully completing at least 10 full credits at University of Toronto Scarborough, which must include requirements (a), (b), (c), and (d) above.
NMAE01H Digital Fundamentals
NMAE02H Introduction to New Media Communications
NMAE03H The Language of Design
NMAE04H Interface Design, Navigation and Interaction I
6. New Media Group 2 — students will be eligible to enrol in these courses after successfully completing all courses in Group 1 as listed in (c) above.
NMAE05H Interface Design, Navigation and Interaction II
NMAE06H Project Development and Presentation
NMAE08H Application Software for Interactive Media
NMAE09H Sound Design
NMAE10H Design for New Media
7. NMAE10H New Media Senior Project
8. NMAE20H Theory and Practice of New Media

The following NME courses are taught at UTSC: NMAE020H, NMAE200H, NMAE201H and NMAE202H. All other NME courses are taught at Centennial College.

NMAE202H Introduction to New Media in the Humanities and Social Sciences
Introduces students to the variety of ways 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 enrolment: 50
Pre-requisite: 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.

NMAE203H Design in Visual Culture
How do contemporary cultural workers engage the potential of emerging design technologies? CAD, digital networks, robotics, space age materials, exotic industrial processes, bioengineering 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 enrolment: 50
Pre-requisite: NMAE201H

NMAE204H Digital Fundamentals
This course introduces basic hardware and software for new media. Students will learn basics of HTML (tags, tables and frames) and JavaScript for creation of new media. Discusses hardware requirements including storage components, colour palettes and different types of graphs (bitmap vs. vector-based). Students will be introduced to a variety of software packages used in new media production. Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media. Pre-requisite: 10 FCE Concourse: NMAE022H, NMAE043H, NMAE044H

NMAE205H Introduction to New Media Communications
This course enables students to develop strong written communications skills for effective project proposals and communications, as well as non-linear writing skills that can be applied to a wide range of interactive media projects. The course examines the difference between successful writing for print and for new media, and how to integrate text and visual material. Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media. Pre-requisite: 10 FCE Concourse: NMAE011H, NMAE063H, NMAE064H
NMEB06H3 Project Development and Presentation
This course enables the participant to understand the new media production process. Learners will develop the skills to conduct benchmarking, scripting 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.
Prerequisite: 10 FCE
Corequisites: NMEA04H, NMEA02H, NMEA04H

NMEB06H3 Interface Design, Navigation and Interaction I
This course introduces students to the discipline of user interface and software design, and in particular their impact and importance in the world of new media. The course uses theory and research to bring a user-centred design perspective to developing new media software.
Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media.
Prerequisite: 10 FCE
Corequisites: NMEA01H, NMEA02H, NMEA03H

NMEB05H3 Interface Design, Navigation and Interaction II
Extends work on interface design. Students have opportunities to gain real world experience in the techniques of user interface design. Participants learn to do a "requirements document" for projects, how to design an interface which meets the needs of the requirements of the document and how to test a design with real world users.
Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media.
Prerequisite: NMEA01H, NMEA02H, NMEA03H, NMEA04H

NMEA04H The Language of Design
This course introduces the fundamentals of two-dimensional design, graphic design theory, design history, colour principles, typographic principles and visual communication theories applied to New Media Design. Working from basic form generators, typograph, two-dimensional design principles, colour and visual communication strategies, learners will be introduced to the exciting world of applied graphic design and multi-media.
Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media.
Prerequisite: 10 FCE
Corequisites: NMEA04H, NMEA02H, NMEA04H

NMEA04H Interface Design, Navigation and Interaction I
This course introduces students to the discipline of user interface and software design, and in particular their impact and importance in the world of new media. The course uses theory and research to bring a user-centred design perspective to developing new media software.
Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media.
Prerequisite: 10 FCE
Corequisites: NMEA01H, NMEA02H, NMEA03H

NMEB05H3 Sound Design
This course introduces students to the scope of sound design - creative audio for new media applications. Students will work with audio applications software to sample, create and compress files, and in the planning and post-production of new media. Students will also learn to use audio in interactive ways such as soundscapes.
Limited enrolment: 35. This course is only open to students registered in the Joint Major Program in New Media.
Prerequisite: NMEA01H, NMEA02H, NMEA03H, NMEA04H
Corequisites: NMEB05H, NMEB06H, NMEB08H, NMEB10H

NMEB06H3 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 tone, 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.
Prerequisite: NMEA01H, NMEA02H, NMEA03H, NMEA04H
Corequisites: NMEB05H, NMEB06H, NMEB08H, NMEB10H

NMEB06H3 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
Prerequisite: Completion of 15 FCE including NMEA05H, NMEA06H, NMEB06H, NMEB08H, NMEB09H & NMEB10H

NMEB06H3 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, social, and cultural pressures on the theory and practice of new media production and consumption.
Limited enrolment: 35
Prerequisite: NMEB05H, NMEB06H, NMEB08H, NMEB09H & NMEB10H

Paramedicine
(B.Sc.)
Faculty List:
J.W. Gard, B.A. (Mount Allison), Ph.D. (McGill), Professor
SPECIALIST (JOURNAL) PROGRAM IN PARAMEDICINE
Supervisor of Studies: Until June 30, 2006: J. Gard (416-287-7410) Email: gard@utsc.utoronto.ca
From July 1, 2006: S. Reid (416-287-7426) Email: sr @utsc.utoronto.ca
This program may be taken in fulfilment 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 diploma 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. Prior to taking courses at Centennial College, students must also fill out a medical certificate and have current qualifications in CPR, standard first aid and a vulnerable sector police check. Additional details regarding these requirements may be found at Centennial's website: www.centennialcollege.ca/programs/B/index.html. Applicants may arrange to complete these requirements during the first year of their studies at the University of Toronto Scarborough.
For more information on admission and deadlines, see the Joint Programs with Centennial College section of this Calendar.
Program Requirements
Note: In order to remain in the program, students must maintain a cumulative grade point average of at least 2.6.

Students must complete the following courses (15.5 full credit equivalents):
- BGYA00H1 Introductory Biology: Part I
- BGYA02H1 Introductory Biology: Part II
- BGYB10H1 Cell Biology
- BGYB11H1 Aspects of Cellular and Genetic Processes
- BGYB35H1 Mammalian Physiology I
- BGYB35H2 Human Development and Anatomy
- BGYC17H1 Microbiology: The Bacterial Cell
- BGYC25H1 Mammalian Physiology II: Lecture and Laboratory
- CHMA16H1 Introductory Chemistry I: Structure and Bonding
- CHMA11H1 Introductory Chemistry II: Reactions and Mechanisms
- PMDB25H1 Pre-hospital Care 1: Theory and Lab
- PMDB25H2 Therapeutic Approaches to Behaviour in Crisis
- PMDB41H1 Professional Issues, Research and Leadership
- PMDB30H1 Alternations of Human Body Function I
- PMDB36H1 Pharmacology for Allied Health
- PMDB32H1 Pre-hospital Care 2: Theory, Lab and Clinical
- PMDC00H3 Introduction to Social Psychology

Assessment, and the implementation of patient care based on interpretation of assessment findings. Discusses principles of physical and psycho-social development, and how these apply to the role of the paramedic. Students must pass each component (theory and lab) of the course to be successful. This course is taught at the Centennial HP Science and Technology Centre.

Limited enrolment: Enrolment is restricted to students in the Specialist Program in Paramedicine.

Prerequisite: [BGYA01H1 & BGYA02H1] or [BGYA01H1 & PSYA10H1] or [PSYA10H1]

Complementary: PMDB25H, PMDB41H, BGYB33H

PMDB25H3 Therapeutic Approaches to Behaviour in Crisis
Focuses on the utilization of effective communication tools when dealing with persons facing health crises. Students will limit what coping mechanisms utilized by patients and families, and the effects that death and dying on the individual and significant others. Students will have the opportunity to visit or exercise community services and do class presentations. This course is taught at the Centennial HP Science and Technology Centre.

Limited enrolment: Enrolment is restricted to students in the Specialist Program in Paramedicine.

Prerequisite: [BGYA01H1 & BGYA02H1] or [BGYA01H1 & PSYA10H1] or [PSYA10H1]

Complementary: PMDB25H, PMDB41H, BGYB33H

PMDB30H1 Pre-hospital Care 1: Theory and Lab
Discusses how human body function is affected by a variety of psycho-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 each manifestation. This course is taught at the Centennial HP Science and Technology Centre.

Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine.

Prerequisite: PMDB25H, PMDB25H, PMDB41H, BGYB33H

Complementary: PMDB32Y, PMDB36H

PMDB32Y1 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 psycho-physiological or psychological manifestations are assessed to determine the degree of crisis and/or life threat. Students must pass each component (theory, lab and clinical) of the course to be successful. This course is taught at the Centennial HP Science and Technology Centre.

Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine.

Prerequisite: PMDB25H, PMDB35H, PMDB41H, BGYB33H

Complementary: PMDB32Y, PMDB36H

PMDB36H1 Pharmacology for Allied Health
Introduces principles of Pharmacology, essential knowledge for paramedics who are expected to administer medications in Pre-hospital care. Classifications of drugs will be discussed in an organized manner according to their characteristics, purpose, physiologic action, adverse effects, precautions, interactions and Pre-hospital applications. Students will use a step-by-step process to calculate drug dosages. This course is taught at the Centennial HP Science and Technology Centre.

Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine.

Prerequisite: PMDB25H, PMDB25H, PMDB41H, BGYB33H

Complementary: PMDB32Y, PMDB36H

PMDB41H1 Professional Issues, Research and Leadership
Discusses the changing role of the paramedic and introduces the student to the non-technical professional expectations of the profession. Introduces fundamental principles of medical research and professional principles. Topics covered include the role of professional organizations, the role of relevant legislation, the labour/management environment, the field of injury prevention,
and basic concepts of medical research. This course is taught at the Centennial HP Science and Technology Centre. Limited enrolment: Enrolment is restricted to students in the Specialist Program in Paramedicine. Prerequisite: [BGA0A1H or BGA0A2H] or [BGA0T1Y; PSY3A0H] or [PSY3A0Y] Co-requisite: PMDC02H, PMDC03H, BGY3C3H

PMDC43H3 Alterations of Human Body Function II
Strengthens students' decision-making skills and sound clinical practices. Students continue to develop an understanding of various complex alterations in human body function from a variety of patho-physiological topics. Physiological alterations will be discussed in terms of their potential life threat; their effect on the body's compensatory and decompensatory mechanisms, their manifestations and complications and treatment. This course is taught at the Centennial HP Science and Technology Centre. Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine. Prerequisite: PMDC03H, PMDC06H, MBDR04H, BGY3B1H, BGY3C3H Co-requisite: PMDC42Y, PMDC43H

PMDC472Y Pre-hospital Care 3: Theory, Lab and Field
Provides students with the necessary theoretical concepts and applied knowledge and skills for managing a variety of pre-hospital medical and traumatic emergencies. Particular emphasis is placed on advanced patient assessment, ECG rhythm interpretation and cardiac emergencies, incorporation of symptom relief pharmacology into patient care and monitoring of intravenous fluid administration. Students must pass each component (theory, lab and field) of the course to be successful. This course is taught at the Centennial HP Science and Technology Centre. Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine. Prerequisite: PMDC06H, PMDC02Y, PMDR06H, BGY3B1H, BGY3C3H Co-requisite: PMDC04H, PMDC40H

PMDC43H3 Medical Directed Therapeutics and Paramedic Responsibilities
Applies concepts and principles from pharmacology, patho-physiology and pre-hospital care to make decisions and implementation of controlled or delegated medical acts for increasingly difficult case scenarios in a class and lab setting.Ethics and legal implications/responsibilities of actions will be integrated throughout the content. Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine. Prerequisite: PMDC02Y, PMDC06H, PMDC41H, BGY3B1H, BGY3C3H Co-requisite: PMDC40H, PMDC42Y

PMDC54Y2 Pre-hospital Care 4: Theory, Lab and Field
Combines theory, lab and field application. New concepts of paediatric trauma and Basic Trauma Life Support will be added to the skill and knowledge base. Students will be guided to develop a final portfolio demonstrating experiences, reflection and leadership. Students must pass each component (theory, lab and field) of the course to be successful. This course is taught at the Centennial HP Science and Technology Centre. Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine. Prerequisite: PMDC41H, PMDC42Y, PMDC43H, BGY3B1Y Co-requisite: PMDC54Y

PMDC568H3 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 at the Centennial HP Science and Technology Centre. Limited enrolment: Enrolment is limited to students in the Specialist Program in Paramedicine. Prerequisite: PMDC40H, PMDC42Y, PMDC43H, BGY3B1Y Co-requisite: PMDC54Y

Philosophy (B.A.)
Faculty List
W.C. Graham, M.A., Ph.D. (Toronto), Professor Emeritus
JE. Slob, M.A. (Iowa State), Ph.D. (Michigan), Professor Emeritus
W.E. Seager, M.A. (Alberni), Ph.D. (Toronto), Professor
K.L. Shum, B.A. (Hong Kong), B.A. (London), M. Phil. (Hong Kong), B. Phil. (Oxford), Ph.D. (Stanford), Professor
P. Kremen, B.Sc. (Toronto), Ph.D. (Pittsburgh), Associate Professor
L. Largi, B.A., M.A. (Manitoba), Ph.D. (Toronto), Associate Professor
S. Sedivy, B.A. (Toronto), Ph.D. (Pittsburgh), Associate Professor
J. Hawkins, B.A. (Brock), M.A., Ph.D. (Princeton), Assistant Professor
B. Belle, B.A. (Stanford), Ph.D. (Princeton), Assistant Professor
M. Lin, B.A. (NYU), Ph.D. (Chicago), Assistant Professor
J. Wilson, B.A. (U.C. San Diego), Ph.D. (Cornell), 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. Kremen Email: kremen@utsc.utoronto.ca

Philosophy is the study of the ideas that shape our thought and activity. While we do discuss controversial issues in politics, morality, science, religion, art, etc., philosophy is more concerned with the ideas that underlie all such debates. We consider what the role of government should be, what motives there could be to describe anything as good or bad, what proves that something is true, whether there could be a reality beyond the physical world, and whether the only value of art is the pleasure it gives. Such questions have been answered in a variety of theories, and any study in philosophy begins with learning what others have thought, but our purpose is not primarily to be historians of ideas, and assignments focus on developing the intellectual abilities and techniques required to think effectively for oneself at this deeper level. So philosophy emphasizes interpretation and original thought, reasoning, discussion and assessment.

PHIL101H and PHIL111H are a survey of the main topics of philosophy. They are recommended with as courses of general interest and as an introduction to the Major and Specialist Programs.

B-level courses address specific topics such as theories of human nature, theories of mind, theories of knowledge, metaphysics, techniques of argumentation, ethics, politics, feminism, and art as well as specific periods in the History of Philosophy. Since they have no prerequisites they also serve as entry-points to philosophy.

C-level seminars in Philosophy are advanced courses for students with either one or two full-course equivalents 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 registering special permission to enroll in a seminar.

D-level independent study courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior agreement of an instructor.

The Philosophy Study Guide is available at: http://www.scsc.utoronto.ca/~seager/study.html

Note: For Co-op opportunities related to the Major Program in Philosophy, please see the Cooperative Program in Humanities section of this Calendar.

SPECIALIST PROGRAM IN PHILOSOPHY
Supervisor: P. Kremen (416-287-7728) Email: kremen@utsc.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. MAT255H1 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.
PHIL1103 Business Ethics
An examination of philosophical issues in ethics, social theory, and theories of human nature as they bear on business. What moral obligations do businesses have? Can social or environmental costs and benefits be calculated in a way relevant to business decisions? Do political ideas have a role within business?
Exclusion: PHIL205H1

PHIL207H3 Well-Being and Autonomy
What is well-being? What is autonomy? These two notions are central in ethical theory, law, bioethics, and 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.
Limited enrolment: 50

PHIL208H3 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

PHIL209H3 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: PHIL281Y

PHIL211H3 Philosophy of Law
A discussion of right and rights, justice, legality, and related concepts. Particular topics may include: Justifications for the legal enforcement of morality, particular ethical issues arising out of the intersection of law and morality, such as punishment, freedom of expression and censorship, autonomy and paternalism, constitutional protection of human rights.
Exclusion: PHIL271H1

PHIL213H3 Philosophy and Feminism
What is feminism? What is a woman? Or a man? Are gender relations natural or inevitable? Why do gender relations exist in virtually every society? How do gender relations intersect with other social relations, such as economic class, culture, race, social orientation, etc.?

PHIL215H3 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.

PHIL216H3 Political Philosophy: Ancient Greece and the Middle Ages
This course will introduce some important thinkers in political philosophy, such as Plato, Aristotle, Augustine and Aquinas.
Exclusion: PHIL265H1. Note: PHIL301H4 may not be taken after or concurrently with POL270H4.

PHIL217H3 Political Philosophy: The Modern Period
This course will introduce some important thinkers in political philosophy from the 16th Century to the 19th Century. These may include Thomas Hobbes, John Locke, Jean-Jacques Rousseau, W.R. Harvey, Karl Marx, and Karl Marx.
Exclusion: PHIL265H1. Note: PHIL217H4 may not be taken after or concurrently with POL270H4
PHLB420H3 Introduction to Buddhist Philosophy
We make a historical approach to the main aspects of Buddhist philosophy. We seek understandings of what Gotama taught through his discourses and secondary interpretive literature. Following the development of Buddhism we will also study some aspects of Mahayana and Tantric Buddhist philosophy in China and Tibet.

PHLB50H3 Symbolic Logic
An introduction to formal, symbolic techniques of reasoning. Sentential logic and quantification theory (or predicate logic, including identity will be covered. The emphasis is on appreciation of and practice in techniques, for example, the formal analysis of English statements and arguments, and for construction of clear and rigorous proofs.
Exclusion: PHL245H1

PHLB52H3 The Art of Thinking
A study of methods and techniques for developing effective reasoning and argumentation. This course aims to develop skills in identifying ambiguities, evaluating premises, constructing counter-examples, and reconstructing arguments. This course provides an important foundation for Philosophy students, while offering essential critical skills for all students, no matter what their Program.
Exclusion: PHL247H1, TRN260Y

PHLB55H3 Puzzles and Paradoxes
Philosophy often begins with a puzzle or a paradox. Arrow once convincingly argued that motion was impossible, but people continue to move. The "Liar's paradox" seems to show that everything is both true and false, but that cannot be right. In this course, we will puzzle through these and related issues.

PHLB60H3 Metaphysics
A consideration of problems in metaphysics: the attempt to understand how things fit together in the most general sense of this phrase. Some issues typically covered include: the existence of God, the nature of time and space, the nature of mind and the problem of the freedom of the will.
Exclusion: PHL311H1

PHLB70H3 Philosophy of Science
A study of philosophical questions raised by the natural and social sciences. Topics discussed may include: the nature of rationality and the role of values in science, the description of scientific methodology, the structure of scientific theory, and the question of how or in what sense science progresses.
Exclusion: HPS250H1
Prerequisite: One full or half credit course in Philosophy or in one of the Sciences

PHLB80H3 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.

PHLB81H3 Theories of Mind
An examination of questions concerning the nature of mind. Philosophical questions considered may include: what is consciousness, what is the relation between the mind and the brain, how did mind evolve and do animals have minds, what is thinking, what are feelings and emotions, and can machines have minds.
Exclusion: PHL240H1

PHLB83H3 Foundations of Cognitive Science
A study of the hypotheses and theories that ground cognitive science. Fundamental questions include: what is a computational system and how can a physical system think and understand language? The course examines the functionalist theory of mind, the relationship between syntax and semantics, and the theory of interpretable formal systems.

PHLB89H3 Theories of Human Nature
An exploration of theories which provide answers to the question "What is a human being?", investigating catch-phrase definitions as: "Man is a rational animal," "Man is a political animal," "Man is inherently individual," "Man is inherently social," etc. Authors studied include: Aristotle, Hobbes, Rousseau, Darwin, Marx, and Freud.
Exclusion: PHL/C91H1

PHLC030H3 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 PHL or permission of the instructor

PHLC90H3 Ethical Theory
Philosophers offer systematic theories of ethics: theories that simultaneously explain what ethics is, why it matters, and what it tells us to do. This course is a careful reading of classic philosophical texts by the major systematic thinkers in the Western tradition of ethics. Particular authors read may vary from instructor to instructor.
Exclusion: (PHL80H1), PHL375H
Prerequisite: One course in Philosophy, preferably PHL311H (though not required), or permission of the instructor

PHLC96H3 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"ethics theory." In this class we will explore specific topics in ethical theory in some depth. Specific topics may vary with the instructor.
Exclusion: (PHL318H), PHL373H
Prerequisite: One course in Philosophy, preferably PHL351H (though not required), or permission of the instructor

PHLC130H3 Topics in Philosophy and Feminism
What is gender? Gender issues have animated discussion 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.

PHLC20H3 Topics in the Theory of Knowledge
A sequel to PHL20H1L. This course will consider one or two epistemological topics in depth, with an emphasis on class discussion. For details for a given academic year, please consult the UTSC Philosophy Study Guide.
Prerequisite: 1.0 FCE in Philosophy or Permission of the Instructor.

PHLC39H3 Topics in Early Modern Philosophy: Rationalism
In this course we study the major figures of early modern rationalism—Descartes, Spinoza, and Leibnitz—with a particular emphasis on topics such as substance, knowledge and sense perception, the mind-body problem, and the existence and nature of God.
Prerequisite: At least one FCE in Philosophy at the B- or C-level. Recommended: PHL351H

PHLC39H3 Topics in Early Modern Philosophy: Empiricism
In this course we study major figures of early modern empiricism—Locke, Berkeley, Hume—with a particular emphasis on topics such as substance, knowledge and sense perception, the mind-body problem, and the existence and nature of God.
Prerequisite: At least one FCE in Philosophy at the B- or C-level. Recommended: PHL351H

PHLC49H3 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 sitt, ethics and psychology, virtue; ethics in Mahayana; Buddhist, utilitarianism, and Aristotelian.
Prerequisite: PHL40H4 or PHL42H4 or permission of the instructor
PHLC 4243 Seminar in Philosophy: Psychopathological Studies in Philosophy
A critical postcolonial examination of some aspects of western European philosophy. How has western philosophy been shaped by the colonisation of other parts of the globe? We will examine modern western philosophy's ideals of modernity, universality, and progress in this light.
Prerequisite: 2.6 FCEs in Philosophy or permission of the instructor.

PHLC 591H Seminar in Philosophy: Mind
Advance Issues in the Philosophy of Mind. For example, an examination of arguments for and against the idea that machines can be conscious, can think, or can feel. Topics may include: Turing's test of machine intelligence, the argument based on Godel's theorem that there is an unbridgeable gap between human minds and machine capabilities, Searle's Chinese Room thought experiment.
Prerequisite: 2.0 FCEs in PHIL or permission of the instructor.

PHLC 591H Seminar in Philosophy: Mind
Advanced topics in the Philosophy of Mind. This course will consider one or two topics in the Philosophy of Science in depth, with an emphasis on class discussion. For details, please consult the UTSC Philosophy Study Guide.
Prerequisite: 1.0 FCE in Philosophy or permission of the instructor.

PHLC 591H Seminar in Philosophy: Mind
Advanced topics in the Philosophy of Mind. This course will consider one or two topics in the Philosophy of Science in depth, with an emphasis on class discussion. For details, please consult the UTSC Philosophy Study Guide.
Prerequisite: 1.0 FCE in Philosophy or permission of the instructor.

PHLC 591H Seminar in Philosophy: Mind
Advanced topics in the Philosophy of Mind. This course will consider one or two topics in the Philosophy of Science in depth, with an emphasis on class discussion. For details, please consult the UTSC Philosophy Study Guide.
Prerequisite: 1.0 FCE in Philosophy or permission of the instructor.

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PHLC 591H Seminar in Philosophy: Mind
Advanced topics in the Philosophy of Mind. This course will consider one or two topics in the Philosophy of Science in depth, with an emphasis on class discussion. For details, please consult the UTSC Philosophy Study Guide.
Prerequisite: 1.0 FCE in Philosophy or permission of the 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
• Natural 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 timeable 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. Dryer (416-287-7206) Email: dryer@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 these 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 lends 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 third and fourth 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 2.50 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 of 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 10.0 FCEs and has 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 major programs. The student will be interviewed by the ETP Co-ordinator and a representative of OISE/UT to ensure that the student is making adequate 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-ordinator, alternate practicum placements will be considered, with a prime example being the "Scientists in Schools" program.

The student must complete one of [PSCD30H1 or PHY341H1] and one of [PSCD20H1 or PSCD20H1 or PHY342H1]. This requirement is part of the agreement between UTSC and OISE/UT, and cannot be waived. Even where those courses are not specific requirements of the chosen academic programs, 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 choice 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 FCEs of the 20.0 FCEs of the B.Sc. degree, in addition to the submission of a practicum portfolio. At the completion of their B.Sc. degree, admission at OISE/UT is guaranteed provided that the ETP student has obtained a GPA of at least 2.5 on the best 15.0 FCEs of the B.Sc. degree.

CO-OPTERATIVE PROGRAM IN PHYSICAL SCIENCES
Supervisor of Studies: A.G. Price (416-287-7327) Email: price@utsc.utoronto.ca
Co-op Contact: R. Louden (416-287-7254) Email: askco@utsc.utoronto.ca

The Co-operative Program in Physical Sciences allows students to combine their chosen academic program with an integrated and complementary work experience. Students are required to complete any one of the Specialist Programs offered by the Department of Physical and Environmental Sciences or the Department of Computer and Mathematical Sciences, except those in Computer Science, 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 2006/2007, 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 2005/2006
- Achieve a GPA of at least 3.0 from at least 5.0 FCEs (full credit equivalents)
- Complete by May 2006 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
- Mathematics
- Mathematics and Its Applications (with streams of Statistics, Computational Physical Sciences and Mathematics Teaching)
- Natural Sciences
- 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 Science)
- Mathematics
- Physical Sciences
- Statistics

The second major may be from those offered in the Department of Physical and Environmental Sciences, or from another Department. All double-major combinations must be discussed with and approved by the Supervisor of Studies. The second major may be in Computer Science. Students must meet all the requirements for admission to and continuation in this or any other limited enrolment Major Program.

For academic program descriptions and requirements, please refer to the sections of the Calendar related to each discipline.

All program registrations must be approved and confirmed each year by the Supervisor of the Co-op Program and the Supervisor of the particular program(s). Students are individually responsible for ensuring that they have correctly completed all program and degree requirements for graduation.

Work Terms
To be eligible for their first work term, students must have completed at least 7.0 FCEs and have completed the Arts & Science Co-op Work Term Preparation course. Students will work in areas exclusively related as possible to their academic Programs. If a student is taking a double-major Program, and if the second major is in Computer Science or in another Department, the work term will be primarily associated with the primary Physical Sciences major. Students are not permitted to complete more than one summer work term.

PROGRAMS AND COURSES
The Programs offered by Physical Sciences emphasize co-ordination among traditional subject areas. The aim is to provide students with an integrated view of science. The Early Teacher Project and the Co-operative Programs offered in the Department build on this inter-disciplinary theme.

Note: Co-requisites and prerequisites must be carefully checked; for example, MATB4H1 is a pre-requisite for PHYB4H1.

The Department of Physical and Environmental Sciences offers interdisciplinary courses under its PSC designation. They are designed for students with a broad interest in Physical Science. Many of the Specialist and the Major Programs offered by the disciplines of the Department of Physical and Environmental Sciences require one or more PSC courses. The Department offers an interdisciplinary Specialist Program in the Physical and Mathematical Sciences. This Program provides an excellent opportunity to combine studies from a number of disciplines.

SPECIALIST PROGRAM IN NATURAL SCIENCES
Supervisor of Studies: N. Cherindeko E-mail: n.cherindeko@utoronto.ca

The program is designed to give students a broad background in science with a deeper knowledge of one field. Two seminar courses and a humanities requirement are intended to ensure that graduates can also talk about science and write about science. The program is well-suited to students interested in teaching science at an elementary or intermediate level and also complements the Early Teacher Project in Physical Sciences. It could also lead to careers in science journalism or in science policy.

Program Requirements
The program requires 13.5 to 14.5 FCEs depending on choices made in Requirement 5 as follows:

1. Year 1, 4.0 FCE in total:
   a) 1.0 FCE Biology: BGYA01H & BGYA02H
   b) 1.0 FCE Chemistry: CHMA1H & CHMA1I
   c) 1.0 FCE Physics: PHYA1H & PHYA2H
   d) 1.0 FCE Calculus: MATAS0H & one of MATAS1H, MATAS2H or MATAS3H
2. Additional required courses, 2.5 FCE in total:
   a) PSCB37H1
   b) EESA01H or EEEA06H
   c) AASTA4H
   d) STAB22H or STAB32H
   e) PHLE55H

3. 1.0 FCE at B-level in each of THREE of the discipline groups, 3.0 FCE in total:
   a) Physics & Astronomy
   b) Chemistry
   c) Biology
   d) Mathematics & Statistics (not to include STAB32H or STAB42H if taken to satisfy 2 above)
   e) Environmental Science

4. PSC0D1H & PSC0D2H

5. 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: J. Lomnitz (416-287-4600) Email: lornez@stic.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:**
ASTA0H1 Introduction to Astronomy and Astrophysics I: The Sun and Planets
ASTA0H2 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
CHMA0H1 Introductory Chemistry I: Structure and Bonding
CHMA1H1 Introductory Chemistry II: Reactions and Mechanisms
MATA2H1 Linear Algebra I
MATA2H2 Calculus I
[MATA3H1 Calculus II for Physical Sciences]
or
MATA3H2 Calculus II for Mathematical Sciences
PHYA1H1 Introduction to Physics I
PHYA2H1 Introduction to Physics II

**Second Year:**
MATH24H Linear Algebra II
MATH41H Techniques of the Calculus of Several Variables I
PHYB4H1 Intermediate Physics Laboratory I
PHYB2H1 Electricity and Magnetism
PSCB37H Introduction to Scientific Computing

**Second or Third Year:**
ASTB21H Solar System and Stellar Astrophysics
CHMB2H1 Chemical Thermodynamics and Elementary Kinetics
CHMB2H2 Chemical Structures and Spectroscopy
CSCB0H1 Computer Organization
MATH42H Techniques of the Calculus of Several Variables II
MATH44H Ordinary Differential Equations
PHYB2H1 Introduction to Quantum Physics
STAB32H Introduction to Probability

**Third and Fourth Year:**
ASTC22H Galactic and Extragalactic Astrophysics
CSCC20H Numerical Methods
or
CSCC50H Numerical Analysis and Optimization
and
CSCC51H1 Numerical Approximation, Integration and Ordinary Differential Equations
CSCC52H Microprocessor Systems
MATH41H Linear Programming and Optimization
MATH44H Complex Variables
MATH40H Differential Equations
[PHSC01H Instrumentation of Science]
or
PHYS11H1 Intermediate Physics Laboratory II
PHYS20H Vibrations and Waves
PSCD0H1 Physical Sciences Project
PSCD2H1 Current Questions in Mathematics and Science
STAB37H1 Introduction to Statistics

Note: PSCD0H1 is a required course for ETP students

**MAJOR PROGRAM IN PHYSICAL SCIENCES**
Supervisor: G. Lomnitz (416-287-7248) Email: lornez@stic.utoronto.ca

The Major Program in Physical Sciences is intended for students desiring a general background in the physical sciences (with emphasis in the area of astronomy, physics and physical chemistry) but who do not intend to pursue graduate studies.

Parallel major programs for students more interested in the mathematical sciences or in chemistry are offered in Mathematical Sciences, in Chemistry, and in Biochemistry.

**Program Requirements**

The Program requires 8 full-credit equivalents as follows:

**First Year:**
ASTA0H1 Introduction to Astronomy and Astrophysics I: The Sun and Planets
ASTA0H2 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
CHMA0H1 Introductory Chemistry I: Structure and Bonding
CHMA1H1 Introductory Chemistry II: Reactions and Mechanisms
MATA2H1 Calculus I
MATA3H2 Calculus II for Physical Sciences
or
MATA3H2 Calculus II for Mathematical Sciences
PHYA1H1 Introduction to Physics I
PHYA2H1 Introduction to Physics II

Some of these can be deferred to second year, but prerequisites for second- and third-year courses must be carefully checked.

**Second and Third Years:**
CSCA44H Introduction to Computer Science (may be taken in First Year)
or
PSCB57H1 Introduction to Scientific Computing (recommended)
And any 3.5 full-credit equivalents from the following:
ASTB21H Solar System and Stellar Astrophysics
ASTC22H Galactic and Extragalactic Astrophysics
CHMB2H1 Chemical Thermodynamics and Elementary Kinetics
CHMB2H2 Chemical Structures and Spectroscopy
MATA2H1 Linear Algebra I
MATH24H1 Linear Algebra II
MATH19H1 Techniques of the Calculus of Several Variables I
MATH28H1 Techniques of the Calculus of Several Variables II
PHYH10H1 Intermediate Physics Laboratory I
PHYH11H1 Intermediate Physics Laboratory II
PHYH20H1 Vibrations & Waves
PHYH12H1 Electricity and Magnetism
PSBC30H1 Instrumentation of Science
STAR21H1 Statistics I

PSBC19H3 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 studies and Life Sciences.

Prerequisite: PHYS10H

PSBC29H3 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: [CSSC50H] or [MATH38H (with permission of the instructor)] & one A-level science course

PSCC10H3 Physical Sciences Project

This is an independent study course to cover an experimental project or series of projects (including computational projects) in the Physical Sciences. A member of the professoral faculty who, in consultation with the laboratory supervisor, would assess the laboratory performance of the student as well as the written report. This course is intended to provide opportunities for experimental work, beyond those available in the normally scheduled laboratory courses, for students registered in a Physical Sciences Scarborough Specialist Program, who have completed the requirements of the first three years of the Program with a GPA of at least 2.5.

Prerequisite: Permission of the Program Supervisor, who shall consult with the proposed supervising faculty.

PSCC20H3 The Physical Sciences in Contemporary Society

Current issues involving physical science in modern society. Topics include: complex nature of the scientific method; inter-connection between theory, concepts and experimental data; characteristics of premature, pathological and pseudo-scientific organization and funding of scientific research in Canada; role of communication and publishing; public misunderstanding of scientific method. These will be discussed using issues arising in chemistry, computer science, earth sciences, mathematics and physics.

Note: Where PSCC20H is a Program requirement, it may be replaced by PHYS14H with the approval of the Program supervisor.

Exclusion: PHYS34H

Prerequisite: Completion of at least one-half of the full-course equivalent requirements of the required courses in any one of the Physical Sciences Scarborough Programmes.

Corequisite: Continuation participation in one of the Physical Sciences Scarborough Programmes.

PSCED2H3 Current Questions in Mathematics and Science

Topics of current prominence arising in chemistry, computer science, earth science, mathematics and physics will be discussed, usually by faculty or outside guests who are close to the areas of prominence. Topics will vary from year to year as the subject areas evolve.

Note: Where PSED2H is a Program requirement, it may be replaced by PHYS34H with the approval of the Program supervisor.

Exclusion: PHYS34H

Prerequisite: Continuation of at least 3.5 FCEs of a Physical Sciences Program Corequisite: Continuation participation in one of the Physical Sciences Scarborough Programmes.

Physics (B.Sc.)

Faculty List
A. Griffin, M. Sc. (British Columbia), Ph. D. (Cornell), Professor Emeritus
A. Jacobs, B. A., B. Sc., B. Sc. (Waterloo), Ph. D. (Illinois), Professor Emeritus
J. Davidson, B. A., Ph. D. ( Saskatchewan), Professor Emeritus
P. Koonce, B. Sc., M. Sc., Queen's, Ph. D. (Manchester), D. Sc. (Manchester), Professor Emeritus
P. J. O'Donnell, B. Sc., Ph. D. (Glasgow), Professor Emeritus
J. M. Perez, B. Sc., M. A., Ph. D. (Toronto), Ph. D. (Ryerson), (Cantab), Professor Emeritus
P. Antczak, M. Sc. (Warsaw University), Ph. D. (N. Copernicus Astron. Center, Polish Academy of Sciences), Professor
C. C. Dyer, B. Sc. (Bishop's), M. Sc., Ph. D. (Toronto), Professor
M. J. Lee, M. Sc., Ph. D. (Cantab), Professor
I. Layton, B. Sc. (Toronto), M. Sc., Ph. D. (York Uni), Assistant Professor
G. Latza, B. Sc., M. Sc. (Toronto), Senior Lecturer
S. Tawfiq, B. Sc., M. Sc. (A.-Mansur Aliyev), Ph. D. (Trieste, Italy), Lecturer

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, 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 fields and the behavior of electromagnetic waves. 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.
Third & Fourth Years - 6.5 FCE

Tracks Concentrations
- AST230H Galactic and Extragalactic Astrophysics
- PHY100H Vibrations and Waves
- PHY252H Thermal Physics
- MAT184H4 Differential Equations I
- MAT244H4 Ordinary Differential Equations

For all of:
- AST210H History and Nature of Astronomical Discovery
- AST211H Life on Other Worlds
- AST320H Introduction to Astrophysics
- AST321H Practical Astronomy

For at least one of:
- PHY365H1 Electronics Lab I
- PHY370H1 Introduction to Computational Physics
- PHY375H1 Radiation on Planetary Atmospheres
- PHY384H1 Modern Physics Laboratory
- PHY443H1 Intermediate Biophysics
- PHY531H1 Classical Mechanics
- PHY532H1 Electromagnetic Theory
- PHY555H1 Quantum Mechanics I

An additional 1.0 FCE from:
- [ENVS20Y1] Physics and Chemistry of Planet Earth
- JAP395H1 Introduction to Archaeometry
- JAP201H1 Physics and Archaeology

An additional 0.5 FCE from AST or PHY D- or 40B-level courses, including the following:
- JAP201H1 The Physical Sciences in Contemporary Society
- PHY541H1 The Physical Sciences in Contemporary Society
- [PSYC20H1] Current Questions in Mathematics and Science
- PHY342H1 Current Questions in Mathematics and Science
- [SCY40H1] Cosmology and Physics Concentration

- AST220H1 Galactic and Extragalactic Astrophysics
- PHY100H Vibrations and Waves
- PHY252H Thermal Physics
- MAT184H4 Differential Equations I
- MAT244H4 Ordinary Differential Equations
- MAT244H4 Differential Equations II
- [PSYC465H1] Differential Equations

Free of:
- AST320H Introduction to Astrophysics
- AST321H Practical Astronomy
- AST401H Topical Astrophysics
- AST425H1 Research Topic in Astronomy

At the University of Toronto Scarborough, students who are interested in Physics can take the Specialist Program in Physical & 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 within the first week of classes.

Note: MAT37H1 is the preferred co-requisite for PHYA219, although MAT33H1 or MAT43H1 is an acceptable alternative. However, only MAT37H1 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 MAT37H1.

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

Program Requirements

Note: Courses which have a number as the fourth character (e.g. PHY395H1) 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 OISE/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
- ASTA01H1 Introduction to Astronomy and Astrophysics I: The Sun and Planets
- ASTA02H1 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
- PHYA10H Introduction to Physics I
- PHYA21H Introduction to Physics II
- MAT33H1 Linear Algebra I
- MAT33H1 Calculus I
- [MAT33H1 Calculus II for Physical Sciences or
- MAT37H1 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
- PHYB21H Electricity and Magnetism
- PHYB24H Introduction to Quantum Physics
- MATB41H Techniques of the Calculus of Several Variables I
- MATB42H Techniques of the Calculus of Several Variables II
- PSCB57H Introduction to Scientific Computing
MAJOR PROGRAM IN ASTROPHYSICS AND PHYSICS

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

The Major Program in Astrophysics and Physics combines introductory and more advanced work in the two areas along with essential mathematics courses. It is especially appropriate for students in the Physical Sciences Co-op Program or in the Early Teacher Project in Physical Sciences, who wish to pursue a Major Program strongly oriented towards physical phenomena in combination with another Major as part of degree and program requirements.

Program Requirements

8.0 FCE (full credit equivalents) are required.

First Year:

ASTA3H1 Introduction to Astronomy and Astrophysics I: The Sun and Planets
ASTA3H2 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
MATA3H1 Calculus I
[ MATA3H2 Calculus II for Physical Sciences ]
MATA3H1 Calculus II for Mathematical Sciences
PHYA1H1 Introduction to Physics I
PHYA2H1 Introduction to Physics II

Second Year and Later Years:

ASTA3H1 Solar System and Stellar Astrophysics
MATA2H1 Linear Algebra I
MATB4H1 Techniques of the Calculus of Several Variables I
MATB4H2 Techniques of the Calculus of Several Variables II
PHYB1H1 Intermediate Physics Laboratory I
PHYB2H1 Electricity and Magnetism
PSB07H Introduction to Scientific Computing

And 1.5 FCE from:

ASTC2H1 Galactic and Extragalactic Astrophysics
PSB07H The Instrumentation of Science
PSB07H Intermediate Physics Laboratory II
PHYB2H1 Vibrations and Waves
PSB07H Introduction to Quantum Physics
PSB07H The Instrumentation of Science

SPECIALIST PROGRAM IN ENVIRONMENTAL PHYSICS

(See the Environmental Sciences section of this Calendar.)

SPECIALIST PROGRAM IN NATURAL SCIENCES

(See the Physical Sciences Scarborough section of this Calendar.)

PHYA1H3 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 PHYA1H4. 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 PHYA1H4. It is also suitable for students in other areas who desire a general interest course in basic physics.

Exclusion: Physics 12U - SP14U (Grade 12 Physics), OAC Physics, PHY110Y

Prerequisite: Advanced Functions and Introductory Calculus (MCF3U)

Concurrent: MATA3H1
PHYSI03H 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: PHY110Y, PHY128Y
Pre requisite: Physics 12 U or S1H4U (Grade 12 Physics) & Advanced Functions and Introductory Calculus (MCB4U0) or PHYA01H
Corequisite: MATA3H

PHYP2H3 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: PHY110Y, PHY138Y
Pre requisite: PHYA1H
Corequisite: MATA3H or MATA6H or MATA7H. (MATA5H does not allow for many future programs in science.)

PHYS13H 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: PHYS23H
Pre requisite: PHYS1H

PHYS1H 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: PHYS823H
Pre requisite: PHYS1H
Corequisite: PHYS2H

PHYS20H3 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: PHYS20H
Prerequisite: PHYA2H1L & [MATA4H1L or MATA6H1L]
Corequisite: MATB4H1L & MATB4H4H

PHYS21H3 Electricity and Magnetism
A study of: Coulomb's law, electric fields, Gauss' law, electric potential, capacitance, dielectrics, magnetic forces and fields, inductance, magnetization, Faraday's law, displacement current, Maxwell's equations. Exclusion: PHYS24H1L, PHYS25H1L
Pre requisite: PHYS21H1L & MATB4H1L
Corequisite: MATB4H2H

PHYS24H3 Introduction to Quantum Physics
Fundamentals of Quantum Mechanics applied to physical problems. Failures of classical physics; Planck radiation formula, photoelectric effect, particle nature of waves, Compton scattering, wave nature of particles; atomic specific; atomic energy levels; Schrödinger equation; solutions for one-dimensional systems (infinite well, square well, harmonic oscillator); time dependence; uncertainty principle; packers; scattering and tunneling in one dimension. Exclusion: PHYS25H4
Prerequisite: PHYS21H1L & [MATA6H1L or MATA7H0L & MATB4H1L (MATA2H3 & MATB4H1H recommended)]
Corequisite: MATB4H2H

Political Science

B.A.

Faculty List
E.G. Andrew, B.A. (British Columbia), Ph.D. (London), Professor Emeritus
J.J. Ceolin, M.A. (Ottawa), Professor Emeritus
D. Iton, B.A. (McGill), M.S.C., Ph.D. (LSE), Professor
A. Kehoe, A.B. (Yale), M.A., Ph.D. (Chicago), Professor
G.S. Klepstad, B.A., M.A. (Alberta), Ph.D. (British Columbia), Professor
S. Solomon, B.A. (McGill), M.A., Ph.D. (Colombia), Professor
J. Tuchman, B.A., B.A., Ph.D. (Toronto), Professor
P. Kingston, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor
C. Nantel, B.A., M.A. (Laval), Ph.D. (Geneva), Assistant Professor
P. Tridala-Macaulay, B.A. (Toronto), M.A. (Brock), Ph.D. (New School for Social Research), Assistant Professor

Doreen Representative/Supervisor of Studies: TBA
Email: political-science-supervisor-studies@carleton.ca

Contemporary states and societies are beset by political crisis and change. Since the end of the Cold War and the post 9/11 period, International relations are unstable and unpredictable and a new world order has yet to be constructed. The sovereignty of nation-states and their capacity to implement national policies of economic and social welfare are being transformed by transnational forces in the new global economy. Religious and ethnic nationalisms divide 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 exploding 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 learn about the political-institutional foundations, political processes and public policies of Canada. Courses in comparative politics deal with the problems of political change and development in areas such as Asia, Europe, Latin America, and the Middle East. Political participation and mobilization, transitions to democracy and ethnic and religious conflict are some of the themes dealt with in comparative politics courses.

International relations is devoted to studying the foreign policies of particular nation-states and the patterns of conflict and co-operation among states. Political theory explores the ideas, such as justice and legitimacy, that are fundamental to political thought and practice, giving special attention to reading and interpreting the classic expositions of politics from ancient Greek philosophers to post-modern social theorists.
SPECIALIST PROGRAM IN POLITICAL SCIENCE

Supervisor of Studies: TBA  Email: political-science-supervisor-studies@utsc.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 (no more than one full credit at the A-level may be counted towards the program requirements).
2. POLB708H Classic Texts in Political Theory I
   and
   POLB718H Classic Texts in Political Theory II
3. POLB550H Canada's Political Institutions
   and
   POLB52H Canadian Politics: Connecting Citizens and Governments
4. At least four of the following (two full credits):
   POLB802H Introduction to International Relations
   POLB813H International Conflict and Conflict Management
   POLB908H Comparative Development in International Perspective
   POLB918H Comparative Development in Political Perspective
   POLB928H Comparative Politics
   POLB938H Comparative Politics of Democratic Government
5. Four full credits in political science at the C- and/or D-level

MAJOR PROGRAM IN POLITICAL SCIENCE

Supervisor of Studies: TBA  Email: political-science-supervisor-studies@utsc.utoronto.ca

Program Requirements
Students must complete at least seven full credits in Political Science as follows:
1. One full credit from among the A-level political science offerings (no more than one full credit at the A-level may be counted towards the program requirements).
2. POLB708H Classic Texts in Political Theory I
   and
   POLB718H Classic Texts in Political Theory II
3. POLB550H Canada's Political Institutions
   and
   POLB52H Canadian Politics: Connecting Citizens and Governments
4. At least four of the following (two full credits):
   POLB802H Introduction to International Relations
   POLB813H International Conflict and Conflict Management
   POLB908H Comparative Development in International Perspective
   POLB918H Comparative Development in Political Perspective
   POLB928H Comparative Politics
   POLB938H Comparative Politics of Democratic Government
5. Two full credits in political science at the C- and/or D-level

MINOR PROGRAM IN POLITICAL SCIENCE

Supervisor of Studies: TBA  Email: political-science-supervisor-studies@utsc.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).
MAJOR (CO-OPERATIVE) PROGRAM IN PUBLIC POLICY

Supervisor of Studies: L. Chan Email: chanl@utsc.utoronto.ca
Advisor: TBA Email: public-policy-supervisor-studies@utsc.utoronto.ca
Co-op Contact: R. Louden Email: utscoop@utsc.utoronto.ca

The Co-operative Program in Public Policy is a work-study Program which combines academic studies in various disciplines with work terms in public enterprises, the private sector, and non-governmental organizations. Two work terms, each of four months duration, must be completed along with the academic Program. An optional, third work term may be completed with the permission of the Co-op Co-ordinator.

The Program equips students with the analytical and methodological skills to secure employment as policy analysts in government, business, and the non-governmental sectors, or to continue 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 contexts, 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-credit 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 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:
   - CSCA01H The Why and How of Computing
   - CSIS04H Introduction to Computer Programming
   - CSIS06H Introduction to Computer Science

2. SOC101H Introduction to Sociology I

3. Prerequisite to Statistics course (if not STA122H or SOCI80H)

Year 2

1. POLB06H Canada's Political Institutions

2. POLB12H Canadian Politics: Connecting Citizens and Governments

3. One of:
   - EMB35H Public Decision-Making;
   - EMB36H Economic Aspects of Public Policy
   - GGRB06H Planning in Canada
   - SOCI80H Quantitative Methods in Social Research
   - SOC81H Qualitative Methods in Social Research

4. Statistics course
POLA5H3 Critical Issues of Canadian Democracy
This course examines some issues critical to the well being of Canadian democracy. The issues may change from year to year but will normally include citizen participation, ethical conduct in political life, national unity, and North American regionalism.

POLA7H3 Politics in Literature
This course is an introduction to political, social and economic themes arising from imaginative literature. Authors and topics covered will vary from year to year.

POLA8H3 Cultures of Conflict: Politics, Society and War Since 1912
This course examines political and social attitudes towards war, and their underlying causes, during the 19th and 20th Centuries; as portrayed in film, literature, and historical writing. Wars examined include the War of 1812, World Wars I and II, and the Vietnam War. Exclusion: (POLA10H3)

POLA8H4 Leaving Home: Politics and Emigration
This course provides 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, distress of conscience) that triggered emigration in the twentieth century. Sources include political and historical works, films and literature.

POLA8H5 Exploring Globalization
This course introduces students to a series of issues in global politics and their consequences for Canadian citizens, including the globalizing economy, terrorism, and environmental degradation. The course explores how these major issues are beginning to change the landscape of world politics and present challenges to political authority and collective identity. Exclusion: (POLA10H3), (POLA10Z2), (POLA18H1), (POLA18H2)

POLA8H6 Globalization and Governance
This course turns to questions of governance in the context of an increasingly globalized world. The course examines the legitimacy and accountability of international organizations, such as the World Trade Organization, and focuses on the rise of new forms of political activism, such as citizen groups and NGOs. Exclusion: (POLA10H3), (POLA10Z2), (POLA18H1), (POLA18H2)

POLA8H7 Politics, Corruption and Violence
This course uses basic tools in comparative political analysis to examine the origins, dynamics and relationship between corruption and violence in less developed countries. Discussion will be placed in the context of recent developments in the global economy and of their political and social consequences within a variety of country case studies. The course will conclude with some reflections on non-violent alternatives to political action.

POLB5H1 Canada's Political Institutions
This course examines the institutional foundations of Canadian government. The constitution, the executive, Parliament, the public service, the federal system, the Charter of Rights and Freedoms, and the courts are discussed, with emphasis on their role in democratic and responsible government. Exclusion: (POLB50Y), (POLB10Y), (POLB214Y)
Prerequisite: Any 4.0 FCEs

POLB5H2 Canadian Politics: Connecting Citizens and Government
This course examines the participatory venues and processes through which Canadian 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: (POLB50Y), (POLB10Y), (POLB214Y)
Prerequisite: POLB50H
Note: It is strongly recommended that students take POLB80H and POLB52H in consecutive sessions.

POLB70H3 Classic Texts in Political Theory I
This course examines central political texts from the ancient Greeks to the Renaissance, including Plato's Republic, Aristotle's Politics, Machiavelli's The Prince. Exclusion: POLB200Y, (POLB70Y)
Prerequisite: Any 4.0 FCEs

POLB71H3 Classic Texts in Political Theory II
This course examines texts from the Glorious Revolution to the French Revolution, including Hobbes' Leviathan, Locke's Second Treatise, Rousseau's Social Contract and the Discourse on Inequality. Exclusion: POLB200Y, (POLB70Y)
Prerequisite: POLB70H
Note: It is strongly recommended that students take POLB70H and POLB71H in consecutive sessions.

POLB80H Introduction to International Relations
This course examines different approaches to international relations, the characteristics of the international system, and the factors that motivate foreign policy. Exclusion: POLB200Y, (POLB80Y)
Prerequisite: Any 4.0 FCEs

POLB81H3 International Conflict and Conflict Management
This course provides a study of the role of international institutions in managing conflict and co-operation at the international level. Exclusion: POLB200Y, (POLB80Y)
Prerequisite: POLB80H
Note: It is strongly recommended that students take POLB80H and POLB18H in consecutive sessions.

POLB90H3 Comparative Development in International Perspective
This course examines the historical and current impact of the international order on the development prospects and politics of less developed countries. Topics include colonial conquest, multi-national investment, the debt crisis and globalization. The course focuses on the effects of these international factors on domestic power structures, the urban and rural poor, and the environments. Exclusion: (POLB91Y), POLB201Y
Prerequisite: Any 4.0 FCEs

POLB91H3 Comparative Development in Political Perspective
This course examines the role of politics and the state in the processes of development in less developed countries. Topics include the role of the military and bureaucracy, the relationship between the state and the economy, and the role of religion and ethnicity in politics. Exclusion: (POLB91Y), POLB201Y
Prerequisite: POLB90H
Note: It is strongly recommended that students take POLB80H and POLB91H in consecutive sessions.

POLB92H3 Comparative Politics
This course introduces students to comparative analysis by examining various theories of how representative democracies function. Exclusion: (POLB92Y)
Prerequisite: Any 4.0 FCEs

POLB93H3 Comparative Politics of Democratic Government
This course undertakes comparative studies of the structure and processes of selected democratic systems in the developed and developing worlds. It explores various models of parliamentary and presidential government organized societal demands in a representative setting. Exclusion: (POLB92Y)
Prerequisite: POLB92H
Note: It is strongly recommended that students take POLB92H and POLB93H in consecutive sessions.

POLC40H3 Current Topics in Politics
Topics will vary depending on the instructor. Prerequisite: One B-level full credit in Political Science

POLC41H3 Current Topics in Politics
Topics will vary depending on the instructor. Prerequisite: One B-level full credit in Political Science
POLC5393H1S Canadian Environmental Policy
This course examines the ideas and success of the environmental movement in Canada. The course focuses on how environmental policy in Canada is shaped by the ideas of environmentalists, economic and political interests, public opinion, and Canada's political-institutional framework. Combined lecture-seminar format.
Prerequisites: POLA51H1 or POLB50H1 or POLB50Y1 or permission of the instructor.

POLC5493H1S Intergovernmental Relations in Canada
This course examines relations between provincial and federal governments in Canada, and how they have been shaped by the nature of Canada's society and economy; judicial review, constitutional amendment, and regionalization and globalization. The legitimacy and performance of the federal system are appraised. Lecture-seminar format. Exclusion: POLC545Y1, POLB51Y1
Prerequisites: POLA51H1 or POLB50H1 or POLB50Y1 or equivalent.

POLC5553S The Politics of Canadian Health Policy
This course examines Canadian health care policies and potential solutions. The impact on health care policies of the interests of health care providers, federal and political parties, and Canadian attitudes toward Medicare are discussed. Prerequisites: Any 5.0 FCEs. [POLB80H1 & POLB82H1] or POLB50Y1 are highly recommended.

POLC5783H2R Intergovernmental Relations and Public Policy
This course examines intergovernmental relations in various areas of public policy and their effects on policy outcomes. It evaluates how federalism affects the capacity of Canadians to secure desirable social, economic, environmental and trade policies. Lecture-seminar format. Exclusion: POLC545Y1, POLB51Y1. Prerequisite: [POLB80H1 or POLB82H1 or POLB50Y1 or equivalent] & POLC45H1

POLC5683H3S Public Policy Making
This course provides a study of the current introduction of public policy-making and the use of the processes that are involved in making public policy. Process theories 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. Exclusion: POLC565Y1. Prerequisite: POLA51H1 or POLB50H1 or POLB50Y1 or POLB52H1.

POLC5783H3S Public Policy in Canada
This course is a survey of contemporary patterns of public policy in Canada. Selected policy studies including managing the economy from post-war stabilization policies to the rise of global capitalism, developments in the Canadian welfare state and approaches to external relations and national security in the new international order. 
Exclusion: POLC565Y1. Prerequisite: POLA51H1 or POLB50H1 or POLB50Y1 or POLB52H1.

POLC7393H1S Modern Political Theory
This course is a survey of the major political philosophers of the nineteenth century, including Hegel, Marx, J.S. Mill, and Nietzsche. Exclusion: POLC747Y1, POLC320Y. Prerequisite: POLB70H1 & POLB71H1 or POLB77Y1 or equivalent.

POLC7493H3S Modern Political Theory
This course is a survey of the major political philosophers of the twentieth century. The theorists covered will vary from year to year. Exclusion: POLC747Y1, POLC320Y. Prerequisite: POLC73H1.

POLC7893H1S Women in Political and Social Thought
This course explores 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 is on current feminist reinterpretations of classical texts. Exclusion: POLC76Y1, JP334Y. Prerequisite: Any 4.0 FCEs.

POLC7663H1S Women in Political and Social Thought
This course examines twentieth-century female thinkers, feminists, and anti-feminists. Exclusion: POLC76Y1, JP334Y. Prerequisite: POLC76H1.

POLC783H1S Political Analysis
This course examines the methods of analysis used in the literature on politics. The course teaches students to identify underlying assumptions, to differentiate good from bad logic of argument, to distinguish between adequate and inadequate use of evidence and between supported and unsupported conclusions. Exclusion: POLC73Y1. Prerequisite: One full credit in Political Science.

POLC8293H1S The Formulation of American Foreign Policy
This course examines the process by which American foreign policy is formulated. Exclusion: POLC326Y1, POLC32Y1. Prerequisite: One full credit from POLB80H1 & POLB82H1 or POLB85Y1, POLC3Y1, POLC32H1, POLC3Y1.

POLC8393H1S The Application of American Foreign Policy
This course examines the foreign policy of the United States by analyzing its context and application to a number of specific regions and problems in the world. Exclusion: POLC326Y1, POLC3GY1. Prerequisite: One full credit from POLB80H1, POLB85Y1, POLB82H1, POLC3Y1, POLC32H1, POLC3Y1.

POLC5493H1S Canadian Foreign Policy
This course introduces Canadian foreign policy since 1945. Exclusion: POLC31Y2. Prerequisite: [POLB80H1 & POLB82H1] or POLB88Y1 or POLB8H1 or POLB81Y1 or POLB83Y1 or POLB85Y1.

POLC583H1S Canadian Foreign Policy
This course considers the issues and influences which have determined Canadian foreign policy. Exclusion: POLC31Y2. Prerequisite: POLC45H1.

This course examines the rise and the collapse of the first Communist state. Topics include the Stalinist dictatorship and de-Stalinization, the planned economy and the black market, ethnic politics and dissent. Particular attention is paid to the attempt to reform communism before 1991. Exclusions: [POLC365Y1, POLC39Y1]. Prerequisite: One 2-level full credit in Political Science.

POLC5393H1S International Cooperation and Institutions
This course explores the possibilities and limits for international cooperation in different areas and an examination of how institutions and the distribution of power shape bargained outcomes. Prerequisite: POLB80H1 & POLB85Y1.

POLC8893H1S The New International Agenda
Traditional International Relations Theory has concentrated on relations between states, either failing to discuss, or missing the complexities of important issues such as terrorism, the role of women, proliferation, globalization of the world economy, and many others. This course serves as an introduction to these issues - and how international relations theory is adapting in order to cover them. Exclusion: POLC39Y1. Prerequisite: [POLB80H1 & POLB81H1] or POLB85Y1 or equivalent.

POLC8993H1S Politics and Government in Post-Communist Russia
This course examines the attempt to create democracy and a market economy in post-communist Russia. Topics include federalism and regional politics, organized crime, the decline of the welfare state, and Russia's place in the world. Exclusion: POLC365Y1, POLC39Y1. Prerequisite: One 2-level full credit in Political Science.

POLC9693H1S Development Studies: Political and Historical Perspectives
This course provides students with a more advanced examination of issues in development studies, including some of the mainstream theoretical approaches to development studies and a critical examination of development practice in historical and political contexts. Prerequisites: [POLB89H1 & POLB91H1] or POLB91Y1.
POLC9H3 Latin America: Dictatorship and Democracy
This course explores the origins of Latin America's cycles of brutal dictatorship and democratic rule. It examines critically the assumption that Latin American countries have made the transition to democratic government.
Exclusion: POLC9VY, POL305Y
Prerequisite: [POLB9H1 & POLB9H1I] or (POLB9H3Y) or equivalent

POLC9H3 The American Political Process
This course analyses the American federal system and the institutions and processes of government in the United States. Exclusion: POL30VY, POLC87Y
Prerequisite: One full credit in Political Science at the B-level

POLC9H3 Public Policies in the United States
This course focuses on selected policy issues in the United States. Exclusion: POL30VY, POLC87Y
Prerequisite: One full credit in Political Science at the B-level

POLC9H3 International Political Economy of Trade
This course 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: [POLB9H1 & POLB9H1I] or (POLB9H3Y) or equivalent, familiarity with basic economic concepts is recommended

POLC9H3 Politics and Society in the Middle East
This course explores contemporary issues in Middle East politics. Topics include the 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. Prerequisite: [POLC9H1 & POLB9H1I] or (POLB9H3Y)

POLC9H3 Latin America: The Politics of the Dispossessed
This course explores the way the poor and oppressed have organized and fought for their rights. Special attention is given to the ways in which globalization has affected popular organizing, including its impact on insurgent movements such as the Zapatistas. Exclusion: POLC9SY, POL305Y
Prerequisite: [POLB9H1 & POLB9H1I] or (POLB9H3Y) or equivalent

POLD1H3 Research Seminar In Political Science
This course provides an opportunity to design and carry out individual or small-group research on a political topic. After class readings on the topic under study, research methods and design, and research ethics, students enter "the field" in Toronto. The seminar provides a series of opportunities to present and discuss their unfolding research. Limited enrolment: 15 Exclusion: POLD71H
Prerequisite: 2.0 credits in Political Science and a cumulative GPA of at least 3.2. POLD98H1 is recommended but not required

POLD9H3 Political Interests, Political Identity, and Public Policy
This course examines the interrelationship between organized interests, social movements and the state in the formulation and implementation of public policy in Canada and selected other countries. Prerequisite: POLAS1111 or [POLB9H1 & POLB9S2H] or (POLB505Y)

POLD9H3 Topics in Canadian and Comparative Politics
This seminar course explores selected issues of Canadian Politics from a comparative perspective. The topics in this course vary depending on the instructor. Limited enrolment: 25 Prerequisite: [POLB9H1 & POLB9S2H] or (POLB505Y)

POLD9H3 Exploring the New International Agenda
This course examines in depth the broad set of issues on the international agenda: terrorism, non-proliferation, human security, women's issues, human rights and others. It emphasizes in-class participation, and student presentations. Limited enrolment: 25 Exclusion: POLC87Y
Prerequisite: POLC88H

POLD9H3 Public Policy and Human Development in the Global South
While domestic and international political factors have discouraged pro human development public policies in much of the global south, there have been some important success stories. This course examines the economic and social policies most successful in contributing to human development and explores the reasons behind these rare cases of relatively successful human development. Limited enrolment: 25 Prerequisite: A social sciences or humanities course on the global south or on development

POLD9H3 Selected Topics on Developing Areas
Topics vary according to instructor. Prerequisite: A Social Sciences or Humanities course on the Third World or Development

POLD9H3 Supervised Research
A research project under the supervision of a member of faculty that will result in the completion of a substantial report or paper acceptable as an undergraduate senior thesis. Students wishing to undertake a supervised research project in the Winter Session must register in POLD9H3 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

POL 2008H Supervised Reading

Advanced reading in special topics. This course is meant only for those students who, having completed the available basic courses in a particular field of Political Science, wish to pursue further intensive study on a relevant topic of special interest. Students are advised that they must obtain consent from the supervising instructor before registering for this course. 

Exclusion: POL 209Y 

Prerequisite: One B-level course in Political Science & permission of the instructor.

Psychology

(B.Sc.)

Faculty List

G.B. Biederman, B.Sc. (CUNY), Ph.D. (NYU), Professor Emeritus
J.E. Foley, B.A., Ph.D. (Sydney), Professor Emeritus
B. Fortin, B.A.(Toronto), M.A., Ph.D. (Michigan), Professor Emeritus
A. Kukla, A.B., M.A., Ph.D. (UCLA), Professor Emeritus
M.C. Smith, B.A. (Toronto), Ph.D. (MIT), Professor Emeritus
J. Basilli, B.A. (McGill), Ph.D. (Cornell), Professor
G.C. Cupchik, B. A. (Michigan), M.A., Ph.D. (Wisconsin), Professor
K.E. Doss, B.A. (Wellesley), Ph.D. (Minnesota), Professor
G.O. Ivy, B.A. (Drew), Ph.D. (California, Irvine), Professor
J.M. Kennedy, B.Sc., M.Sc. (Halifax), Ph.D. (Cornell), Professor
N.W. Milgram, B.A. (UCLA), M.A., Ph.D. (McGill), Professor
T.L. Pett, B.Sc., M.A. (Louisiana), Ph.D. (Florida), Professor
M.A. Schmack, B.A. (SUNY-Binghamton), Ph.D. (Cornell), Professor
S. Joodens, B.A. (New Brunswick), M.A., Ph.D. (Waterloo), Associate Professor
K.J. takacsa, B.A., M.A., Ph.D. (York), Associate Professor
G.S. Cres, B.A., M.A., Ph.D. (Western), Assistant Professor
S. Ehr, B.Sc. (Wilfred Laurier), M.A. (Guelph), Ph.D. (Guelph), Assistant Professor
A. Forgacs, B.A., Ph.D. (McGill), Assistant Professor
K. Iadicicci, B.Sc. (McGill), M.Sc., Ph.D. (Brown University), Assistant Professor
J.M. Nemer, M.A. (Hamilton), Ph.D. (Teheran), Assistant Professor
N. Ehnström, B.A. (Hons), M.A. (York), Ph.D. (Waterloo), Assistant Professor
D. A. Toor, B.A. (Toronto), M.A. (Regina), Ph.D. (Toronto), Senior Lecturer
J.C. Lefebvre, B.Sc., M.A., Ph.D. (Toronto), Lecturer

Associate Chair: T.B.A

Psychology is that branch of science which seeks to understand behaviour and mind. Why organisms - human and infrahuman - act as they do is one of the most compelling and longstanding questions in the history of human thought. Philosophers, artists, novelists, theologians and others have sought the answer through a variety of means. Psychology uses the methods of scientific 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 alternative 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. This 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 PSY601Y thesis course in their undergraduate Program. 

The Specialist Co-operative Program in Psychology and its Application 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.

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 PSY8001 and PSY8002 be taken consecutively in the two terms of second year. Students should be aware that with the exception of PSY100Y and 2008, courses in the Faculty of Arts and Science correspond to B-, C- or D-level and all 400-series are not necessarily considered D-level. Students are encouraged to plan carefully so that they will meet their educational objectives over the years of their degree. Discussions with the Program 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

PSY1001H & PSY1002H are recommended in first year for students intending to pursue a Specialist or Major Program in Psychology.

SPECIALIST PROGRAM IN PSYCHOLOGY

Supervisor of Studies:

Until June 30, 2006: D. Deors Email: psychology-supervisors-studies@utsc.utoronto.ca

From July 1, 2006: TBA

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY101H</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>PSY102H</td>
<td>Introduction to Psychology: Part II</td>
</tr>
</tbody>
</table>

b) Statistical Methods (1 full-credit equivalent)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY103H</td>
<td>Data Analysis in Psychology</td>
</tr>
<tr>
<td>PSY104H</td>
<td>Advanced Data Analysis in Psychology</td>
</tr>
</tbody>
</table>
4. Credits at the B-level and C-level (1.5 full-credit equivalents)
   Students are required to select 1.0 full-credit equivalent from one of the two groups below.
   5 full-credit equivalent from the other group listed below.
   a) Social, Developmental and Personality (courses listed in the 10-, 20-, or 30-series);
   b) Learning, Perception, Cognition and Physiology (courses listed in the 40-, 50- or
      60-series).
4. Credits at the D-level (5 full-credit equivalent)
   Students must choose one half-credit (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 PST 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.
4. Additional credits in Psychology (2 full-credit equivalents)
   Students must choose 2 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.
5. 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:
Until June 30, 2006: D. Bros E-mail: psychology-supervisor-studies@utsc.utoronto.ca
From July 1, 2006: TBA

Program Requirements
The Program requires completion of 6.0 full-credit equivalents in Psychology.
1. PSY100H1 Introduction to Psychology: Part 1
2. PSY100H1 Introduction to Psychology: Part 2
   (1 full-credit equivalent)
3. PSY100H1 Psychological Research Laboratory
   (1 full-credit equivalent)
4. STA202H1 Statistics I (recommended)
   or
   PSY100H1 Data Analysis in Psychology
   or
   SOC106H1 Social Statistics
   (2 full-credit equivalents)
5. Additional credit in Psychology (1.0 full-credit equivalent at the C-level)
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 postgraduate 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 PSYB001H, PSYB007H, PSYC002H and PSYC008H, 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. Enrollment 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.

a) 10.5 full-credit equivalents in Psychology, as follows:

1. PSYB01H Introduction to Psychology: Part I and PSYB02H Introduction to Psychology: Part II (1 full-credit equivalent)

2. Statistical Methods (1 full-credit equivalent)

a) PSYB07H Data Analysis in Psychology and PSYC081H Advanced Data Analysis in Psychology

b) one half-course (.5 full-credit equivalent) from among the following: PSYC111H Social Psychology Laboratory PSYC295H Developmental Psychology Laboratory PSYC298H Cognitive Psychology Laboratory NRG063H Neuroscience Laboratory

3. Laboratory Methods (1 full-credit equivalent)

a) PSYB01H Psychological Research Laboratory

b) one half-course (.5 full-credit equivalent) from among the following: PSYC111H Social Psychology Laboratory PSYC295H Developmental Psychology Laboratory PSYC298H Cognitive Psychology Laboratory NR063H Neuroscience Laboratory

4. PSYC02H Scientific Communication in Psychology (.5 full-credit equivalent)

5. History and Theoretical Psychology (1.5 full-credit equivalent)

a) PSYC231H Theoretical Psychology

or

b) PSYC285H History of Psychology

6. Credits at the B-level and C-level (3 full-credit equivalents)

Students are required to take 1.5 full-credit equivalents at the B-level or C-level for each of the two content groups listed below:

a) Social, Developmental and Personality courses listed in the 10-, 20-, and 30-series; students in the Cognition and Behaviour stream must include PSYB201H, Introduction to Developmental Psychology, among the courses selected to meet this requirement.

b) Learning, Perception, Cognition and Physiology courses listed in the 40-, 50-, and 60-series; students in the Cognition and Behaviour stream must take the following courses to complete this requirement:

PSYB351H Perception and Cognition*

and

PSYB371H Memory and Cognition*

and

PSYB651H Brain and Behaviour

7. Credits at the D-level (one full-credit equivalent), chosen from:

PSYD50H1 Current Topics in Memory and Cognition

PSYD52H1 Fundamental Issues in Cognitive Science

PSYD58H1 The Scientific Study of Conscious and Unconscious Influences

PUD51H1 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) PSYD95H1 Psychology and Its Application: Advanced Seminar

b) at least one full-course equivalent from among the following courses**:

PSYB51H1 Perception and Cognition

PSYC331H Neuropsychological Rehabilitation

PSYC335H Psychology and the Law

PSYC645H Cognition and Representation

PLGC24H Developmental Psycholinguistics

PLGC55H 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 other than Psychology. Students in the Cognition and Behaviour stream must select at least two full-credit equivalents from among the following courses:

LINE01H Language and Society

LINB22H Sociolinguistics

LING24H Language and Gender

PHIL08H1 Philosophy of Language

PHIL101H Theories of Mind

PHIL08H1 Foundations of Cognitive Science

PHIL36H Issues in the Philosophy of Mind

PLB25H Second Language Learning

* 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 norms, 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. PSY A01H Introductory Psychology: Part I
   and
   PSY A02H Introductory 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) PSYC02H Theoretical Psychology
   or
   b) PSYC03H History of Psychology
6. Credits at the B-level and C-level (3 full-credit equivalents)
   Students are required to take 1.5 full-credit equivalents at the B-level or C-level from each of the two content groups listed below:
   a) Social, Developmental and Personality (courses listed in the 10-, 20-, and 30-series); students in the Public Opinion and Behaviour stream must include the following courses to satisfy this requirement:
      PSYB10H Introduction to Social Psychology*
      and
      PSYB10H Introduction to Developmental Psychology
   b) Learning, Perception, Cognition and Neuroscience (courses listed in the 40-, 50-, and 60-series); students in the Public Opinion and Behaviour stream must include
      PSYB10H Memory and Cognition, in the courses used to satisfy this requirement.
7. Credits at the B-level (1 full-credit equivalent), chosen from:
   a) PSYD10H Current Topics in Social Psychology
   b) PSYD11H Psychology of Gender
   c) PSYD20H Socialization Processes
   d) PSYD30H Human Intelligence
8. Additional credits in Psychology (2.5 full-credit equivalents)
   Students in the Public Opinion and Behaviour stream must include:
   a) PSYD95H Psychology and Its Applicability: Advanced Seminar
   b) PSYC12H Advanced Social Psychology*
   and
   c) PSYC14H Cross-Cultural Social Psychology
   and
   d) PSYC22H Advanced Developmental Psychology
   The choice of the remaining 2 full-credit equivalents is unconstrained.
PSYB32H1 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 psychotherapists have been trying to learn the causes of abnormal behaviour and what they know about preventing and alleviating it.
Exclusion: PSY240H
Prerequisite: [PSYA01H & PSYA02H] or (PSYA01Y)

PSYB145H1 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: PSY260H
Prerequisite: [PSYA01H & PSYA02H] or (PSYA01Y)

PSYB141H1 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: [PSYA01H & PSYA02H] or (PSYA01Y)
PSYB07H3 Memory and Cognition
Discussion of experiments and theories in human memory and cognition. This course provides an analysis of the research on encoding, storage and retrieval of information in human memory. Also surveyed are the related topics of attention, thinking, and problem-solving, and their role in a general model of information processing.
Exclusion: PSY270H
Prerequisite: [PSYA1H & PSYA2H] or [PSYA1Y]
Recommended: PSYB07H or STAB22H or their equivalent

PSYB4AH5 An Introduction to Physiological Psychology
A survey of the biological mechanisms underlying fundamental psychological processes. Topics include the biological basis of motivated behavior (e.g., emotional, ingestive, sexual, and reproductive behaviors; sleep and arousal), sensory processes and attention, learning and memory, and language.
Exclusion: PSY29H
Prerequisite: [PSYA1H & PSYA2H] or [PSYA1Y]

PSYB6B5H Human Brain and Behavior
The neurological basis of human behavior: 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: [PSYA1H & PSYA2H] or [PSYA1Y]

PSYC2G3H Scientific Communication in Psychology
How we communicate in psychology and why. The differences between scientific and non-scientific approaches to behavior 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.
Exclusion: PSYB01H & PSYB07H or SOC800H or STAB22H
Corequisite: PSYC08H

PSYC08H3 Advanced Data Analysis in Psychology
This course is a continuation of PSYB07H. The primary focus of this course is on the understanding of Analysis of Variance and its application to various research designs. Examples will include one and two-way analyses. Finally, there will be an introduction to multiple regression, including discussions of design issues and interpretation problems.
Exclusion: STAC32H, PSY200H
Prerequisite: [PSYB07H or SOC800H] or STAB22H and one additional B-level half-credit in psychology

PSYC1H5 Social Psychology Laboratory
Introduction to 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 interactions), discussion and laboratory work.
Limited enrolment: 25
Exclusion: PSY29H
Prerequisite: PSYB01H & PSYB07H or SOC800H or STAB22H

PSYC2G2H Advanced Social Psychology
A detailed examination of selected social psychological topics introduced in PSYB10H.
This course examines the nature of attitudes, stereotypes and prejudice, including their development, persistence, and automaticity. It also explores the impact of stereotypes on their targets, including how stereotypes are perceived and how they affect performance, attributions, and coping.
Exclusion: PSY320H
Prerequisite: [PSYB07H or SOC800H or STAB22H] & PSYB01H now plus one additional B-level half-credit in PSY

PSYC1A4H Cross-Cultural Social Psychology
A survey of the role of culture in social thought and behavior.
The focus is on research and theory that illustrate ways in which culture influences behavior 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: PSY321H
Prerequisite: [PSYB07H or SOC800H or STAB22H] & PSYB01H now plus one additional B-level half-credit in PSY

PSYC1B6H 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 psychoanalysis, functionalism, behaviourism, social constructionism, and phenomenology.
Exclusion: PSY39H
Prerequisite: PSYB01H
Recommended: PSYB07H or STAB22H or their equivalent

PSYC2C2H 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 methods: lectures, discussion.
Exclusion: PSY31H
Prerequisite: PSYB02H plus one additional B-level half-credit in PSY
Recommended: PSYB07H or STAB22H or their equivalent

PSYC28B3H 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 behavior 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: PSY31H
Prerequisite: PSYB01H & [PSYB07H or SOC800H or STAB22H] & PSYB01H

PSYC3H3H 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 applied in patient populations to infer brain dysfunction. Students in the Behaviour Disorders Co-op stream should enroll in PSYC32H, not in this course.
Limited enrolment: 75
Exclusion: PSYC2H
Prerequisite: PSYB01H & [PSYB07H or SOC800H or STAB22H] & PSYB32H & PSYB01H

PSYC32H3H Clinical Neuro-Psychology Laboratory
The applied science concerned with the behavioral expression of brain dysfunction for students in the Behaviour Disorders Co-op stream of the Co-op Program in Psychology and its applications. Lecture and demonstration material will be as described for PSYC31H, Clinical Neuropsychology, but students will also complete a laboratory component. The laboratory will afford the student the opportunity for hands-on experience with a number of
neuropsychological measures and will emphasize the learning of specific tests administration and interpretation. Limited enrollment: Enrollment is limited to students in the Behavioral Disorders stream of the Co-op Program in Psychology and its Applications. Exclusion: PSYC31H
Prerequisite: PSYB07H & [PSYB07H or SOCB60H or STAR22H] & PSYB21H & PSYB65H

PSYC33H1 Neuropsychological Rehabilitation
An examination of the therapeutic methods used to improve the capacity of a brain damaged individual to process and use incoming information, enhancing functioning in everyday life. Students will be introduced to methods that aim to restore cognitive function by compensatory techniques. Neuropsychological rehabilitation problems caused by deficits in attention, visual processing, language, memory, reasoning/problem solving, and executive functioning will be stressed. Lectures and demonstrations. Students in the Behavioural Disorders stream of the Co-operative Program in Psychology and its Applications will have priority for entry to the stream. Exclusion: PSYC11H or PSYC32H & PSYB51H

PSYC35M1 Advanced Personality Psychology
This course is intended to advance students' understanding of contemporary personality theory and research. Emerging challenges and controversies in the areas of personality structure, dynamics, and development will be discussed. Exclusion: PSYJ30H
Prerequisite: [PSYB07H or SOCB60H or STAR22H] & PSYB85H & one additional B-Level half-credit in PSY

PSYC35H1 Psychology and the Law
This course focuses on the application of psychology to the law, particularly criminal law including cognitive, neuropsychological and personality applications to fitness to stand trial, criminal responsibility, risk for violent and sexual recidivism and civil forensic psychology. Prerequisite: PSYB53-series half-credit.

PSYC45H1 Cognition and Representation
Recent research on the psychology of representation, in pictures, words, metaphors, analogies and symbols. Topics will include developmental and cross-cultural research on children's understanding of visual and spatial representation, the perception of symbols, and the development of representations in the brain. 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 simple computer models, manipulate data files, and conduct basic data analyses. Limited enrollment: 40
Prerequisite: [PSYB07H or SOCB60H or STAR22H] & [PSYB15H or PSYB57H]
Corequisite: PSYB08H is recommended but not required.

PSYC45H3 Drugs and the Brain
An examination of behavioural and neurological mechanisms underlying the phenomena of drug dependence. Topics will include principles of pharmacological and psychological dependence, tolerance, sensitization, reinforcement and aversion. In addition, concepts of physical and psychological dependence, tolerance, sensitization, reinforcement and aversion will be covered. Exclusion: PSYJ60H & PCL475Y
Prerequisite: [PSYB07H or equivalent] & at least one of PSYB04H, PSYB05H or NSR060H [one additional B-Level or C-Level half-credit in PSY or NSR]

PSYC45S1 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: PSYJ30H
Prerequisite: [PSYB07H or SOCB60H or STAR22H] & permission of the instructor

PSYC45S3 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 simple computer models, manipulate data files, and conduct basic data analyses. Limited enrollment: 40
Prerequisite: PSYB07H & [PSYB07H or SOCB60H or STAR22H] & [PSYB15H or PSYB57H]
Corequisite: PSYB08H is recommended but not required.

PSYC45S9 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, gestalism, behaviorism, and phenomenology. This course is restricted to 3rd and 4th year Specialists in Psychology, Psychologists and Cognitive Science. Limited enrollment: 25
Exclusion: PSYJ60H
Prerequisite: Two B-Level half-credits in Psychology or permission of the instructor. Recommended: PSYB07H or STAR22H or their equivalent

PSYC50H1 PSYC53H1 Supervised Study in Psychology
A reading or research project. These courses provide an opportunity to investigate an area in depth after completing basic courses in regularly scheduled courses. They are not intended as substitutes for advanced courses in fields where these are available. The student must submit a formal proposal and present a clear rationale to prospective supervisors. Frequent consultation with the supervisor is necessary for the successful completion of the project, the need for 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 (62512A) 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
PSY509H3 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: PSY240H
Prerequisite: PSY101H & PSYC21H or PSYC24H

PSY610H3 Critical Analysis in Social Psychology
The development of social psychology is examined both as a discipline (its phenomenology, 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: PSYC11H or PSYC21H or PSY101H plus one C-level half-credit in PSY

PSY518H3 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: PSY323H
Prerequisite: PSY101H plus two C-level half-credit in PSY

PSY340H3 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: PSY21H or PLIC24H or PSY101H plus one C-level half-credit in PSY

PSY520H3 Socialization Processes
The processes by which an individual becomes a member of a particular social system (or systems). The course examines both the content of socialization (e.g., development of specific social behaviors) and the context in which it occurs (e.g., family, peer group, etc.). Material will be drawn from both social and developmental psychology. Limited enrolment: 20
Exclusion: PSY311H, PSY410H
Prerequisite: PSY101H & PSY21H plus one C-level half-credit in PSY

PSY348H3 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: PSY408H
Prerequisite: PSY301H plus one C-level half-credit in PSY

PSY521H3 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: PSY408H
Prerequisite: PSY323H plus one C-level half-credit in PSY

PSY344H3 Human Intelligence
Part I of this course reviews the classical theories as well as past research strategies and findings in the field of human intelligence. Part II examines current work in the area. Part III critically considers the concept of heritability, how it is estimated, and its application to the investigation of individual and group differences on IQ tests. Limited enrolment: 20
Prerequisite: PSY101H & (PSY107H or SOCI50H or STAB22H). PSY501H also recommended.

PSY525H3 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, PSY471H
Prerequisite: PSY157H plus one C-level half-credit in PSY

PSY515H3 Current Topics in Perception
The course provides a survey of the many developments in the area of multisensory integration. Selected readings will cover psychological and neuropsychological findings, neuropsychological models, theories of attention, and an introduction to the Bayesian mechanisms of multisensory integration as well as the application of multisensory approaches. Limited enrolment: 20
Prerequisite: PSY157H & PSY201H

PSY524H3 Fundamental Issues in Cognitive Science
An examination of the conceptual and theoretical issues that lie at the foundation of cognitive science. Topics include: the mind-body problem, functionalism, mental representations, syntax, propositional attitudes, nativism, modularity of mind, rationality, artificial intelligence, consciousness. Limited enrolment: 20
Prerequisite: (PSY107H or SOCI50H or STAB22H) & PSY155-series half-credit & a PSY C-level half-credit or permission of the instructor

PSY550H3 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: PSY157H and at least one C-level course in Psychology

PSY650H3 Current Topics in Human Brain and Behaviour
An extensive examination of selected human brain and behaviour topics introduced in PSY65. The neural bases of mental functions such as language, learning, memory, emotion, motivation and addiction are examples of the topics that may be included. Students will be expected to read and discuss current empirical research in this field. Limited enrolment: 24
Prerequisite: PSY65H
Recommended: PSY107H or STAB22H or their equivalent.
Corequisite: One additional C-level in Psychology

PSY505H5 Seminar in Computational Cognitive Neuroscience
In this course high-performing, senior undergraduate participants in a graduate seminar on Computational Cognitive Neuroscience. Each week visiting experts present research on at least two of computation, cognition or neuroscience. Students are expected to read and comment on articles, attend the talks, and write a final paper. Limited enrolment: 5
Prerequisite: Minimum cumulative GPA of at least 3.6 & permission of instructor
by human societies. A clear understanding of environmental issues from this perspective requires knowledge of social and political processes, of social theory, of the history of conservation, of planning and urban development, and of human ecology, as well as of natural environmental processes. 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 ecosystems; 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 Sciences 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

GORA02H Geography and Global Processes
GORA03H Cities and Environments
Students are also recommended to take 3 FCEs (full credit equivalents) from:

ANTA10H1 Introduction to Anthropology: Becoming Human
ANTA10H2 Introduction to Anthropology: Society, Culture and Language
EAMA10H1 Introduction to Microeconomics
EAMA10H2 Introduction to Macroeconomics
EESA10H1 Introduction to Environmental Science
EESA10H2 Introduction to Planet Earth
HASA10H1 The Twentieth Century World I
HASA10H2 The Twentieth Century World II
HILTA10H1 Peoples and Their Cultures
POLA10H1 Critical Issues of Canadian Democracy
POLA10H2 Politics, Corruption and Violence
SOC10H1 Introduction to Sociology I
SOC10H2 Introduction to Sociology II

These courses may not be counted towards the Program requirements, but may be prerequisites in higher level courses in the Program.

Focus Courses:

GGB20H1 Environmental Conservation and Sustainable Development
ANTB10H1 Political Ecology
IBS20H1 International Development Studies: Development and Environment
ANTC44H1 Environmental Stress, Culture and Human Adaptability

Plus one full credit from:

ANTB11H1 Introduction to World Prehistory: The Old Stone Age
ANTB12H1 Introduction to World Prehistory: The Rise of Civilization
ANTB14H1 Biological Anthropology: Beginnings
ANTB15H1 Contemporary Human Evolution and Variation
ANTB30H1 First Nations of North America: Hunters, Gatherers, Farmers
ANTB39H1 First Nations of North America: Social Complexity and the State
ANTB54H1 Health and the Urban Environment
CLAB01H1 The Mediterranean World I: Greece
CLAB01H2 The Mediterranean World II: Rome
IESB20H1 Biotechnology-Environmental Implications
IESB16H1 Feeding Humans - The Cost to the Planet
Sociology (B.A.)

Faculty List:
- W. W. Intigro, B.A. (LeSalle), M.A., Ph.D. (Catholic Univ. of America), Professor Emeritus
- J. Hamann, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Professor
- P.-C. Hsiang, B.A. (National Chiao-tung University), M.A. (Chinese Cultural University), M.A. (UCLA), Ph.D. (UCLA), Professor
- R. O'Toole, B.A. (Loyola), PGCE (London), M.A. (McMaster), Ph.D. (Toronto), Professor
- A. Savic, 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
- S. Unger, B.A., M.A. (York, Canada), Associate Professor
- J. Bernet, B.A. (Western), M.A. (Carleton), D.Phil. (Oxon), Assistant Professor
- P. Landolt, B.A., M.A. (York), M.A., Ph.D. (Johns Hopkins), Assistant Professor
- K. Laidke, B.A. (Oberlin College, Ohio), M.A. (Asbury University, Kentucky), Ph.D. (Emory University, Atlanta), Assistant Professor
- A. Mullin, B.A. (California), M.A., Ph.D. (Yale), Assistant Professor

Discipline Representative: P. Landolt (416-287-7156), E-mail: landolt@uwaterloo.ca

Sociology is the scientific study of interaction among people, the relations which they establish, and the social groups which they form. Sociology attempts to explain how society is formed, how it functions, and what accounts for social cohesion, social stratification, social mobility, and social change. It studies the consequences of co-operation, competition, and conflict.

Students may wish to take Sociology courses as a part of a general education, in anticipation of the usefulness of certain courses in future occupations or professions, or as part of a Specialist, Major or Minor Program.

The introductory courses, SOC201H and SOC202H (SOC201Y), 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 advisers 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 advisers for special areas of concentration are:

- Social Work: Prof. A. Savic (savic@uwaterloo.ca)
- Urban Studies: Prof. J. Hamann (john.hamann@uwaterloo.ca)
- Education: Prof. J. Tanner (julian.tanner@uwaterloo.ca)

Planning a Program in Sociology

Students are obliged to take required courses in the Major and Specialist Programs as early as their careers as possible. For example, SOC201H, SOC202H, SOC201Y, SOC202H and SOC204H should be taken during the second year, and SOC201H and SOC214H should be taken during the third year. Failure to do so may lead to intolerable conflicts and could prolong the completion of the Program. Students are reminded that they are not permitted to register in courses for which they have not completed the prerequisites indicated in the Calendar. They may only enter a course for which they lack the prerequisites by obtaining the permission of the instructor prior to registration. Instructors have the right to request removal of any student ineligible for enrolment.
SPECIALIST PROGRAM IN SOCIOLOGY

Supervisor of Studies: S. Unger
Email: sociology-supervisor-studies@utsc.utoronto.ca

Program Admission

Enrolment in the Specialist Program is limited. Students must normally apply to enter the Program after completing 4 or 5 full credits including SOCIA01H and SOCIA02H (SOCIA01Y). 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 SOCIA01H and SOCIA02H (SOCIA01Y). 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 SOCIB06H, SOCIB40H, SOCIB41H, SOCIB42H and SOCIB43H 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 first-year degree.

1. SOCIA01H Introduction to Sociology or [SOCIA01H Introduction to Sociology 1 and SOCIA02H Introduction to Sociology 2]
2. SOCIB06H Social Statistics
3. SOCIB40H Quantitative Methods
4. SOCIB41H Qualitative Methods
5. SOCIB42H Classical Sociological Theory Part I
6. SOCIB43H Classical Sociological Theory Part II
7. Two full-course equivalents at B-level in Sociology
8. SOCIB40H Contemporary Sociological Theory, Part I
9. SOCIB41H 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

SPECIALIST (CO-OPERATIVE) PROGRAM IN SOCIOLOGY

Supervisor of Studies: L. Chan
Email: chan@utsc.utoronto.ca
Advisor: TBA
Email: sociology-supervisor-studies@utsc.utoronto.ca
Co-op Contact: R. Loudes
Email: mkocoop@utsc.utoronto.ca

The Co-operative Program allows students to pursue an in-depth study of Sociology combined with two four-month work terms in areas complementary to the area of study. Work terms can be with research institutes, the private sector, public institutions, and non-government organizations. For information on admissions, fees, work terms, and standing in the program, please see the Co-operative Programs section of this Calendar.

Program Admission

This is a limited enrolment program.

Program Requirements

Work Terms

In order to be eligible for placement, students must complete a minimum of 9 full credits, including SOCIB06H, SOCIB40H, SOCIB41H, SOCIB42H and SOCIB43H and complete the Arts & Science Co-op Work Term Preparation course.

Course Requirements

Students must complete the requirements for the Specialist Program in Sociology (see below), with the following additional requirements:

- Either SOCIB35H or SOCIB55H

(These courses may be counted in partial fulfillment of the requirements for B-level courses within the Sociology Specialist Program.)

MAJOR PROGRAM IN SOCIOLOGY

Supervisor of Studies: TBA
Email: sociology-supervisor-studies@utsc.utoronto.ca

Program Admission

Enrolment in the Major Program is limited. Students must normally apply to enter the Program after completing 4 or 5 full credits including SOCIA01H and SOCIA02H (SOCIA01Y). 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 SOCIA01H and SOCIA02H (SOCIA01Y). For students applying after 8-10 credits, admission will be on the basis of overall GPA and grades in SOC courses taken. Major students will be entitled to priority access to SOCIB06H, SOCIB40H, SOCIB41H, SOCIB42H and SOCIB43H for fall-winter sessions, in the summer early registration period.

Program Requirements

The Program requires completion of seven full credits in Sociology including:

1. (SOCIA01Y) Introduction to Sociology or [SOCIA01H Introduction to Sociology 1 and SOCIA02H Introduction to Sociology 2]
2. SOCIB06H Social Statistics
3. SOCIB40H Quantitative Methods
4. SOCIB41H Qualitative Methods
5. SOCIB42H Classical Sociological Theory Part I
6. SOCIB43H Classical Sociological Theory Part II
7. Two full-course equivalents at B-level in Sociology
8. SOCIB40H Contemporary Sociological Theory, Part I
9. SOCIB41H 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

MINOR PROGRAM IN SOCIOLOGY

Supervisor of Studies: TBA
Email: sociology-supervisor-studies@utsc.utoronto.ca

Program Admission

Admission to the Minor Program in Sociology is not limited. All students who apply for this Program will be admitted. However, students are warned that they are not guaranteed admission to B-level and C-level courses during winter session, and thus will be accommodated only after other Program students have been admitted to these courses. Thus some courses may be unavailable, or available only in the summer.

Program Requirements

The Program requires completion of four full credits in Sociology including:

1. (SOCIA01Y) Introduction to Sociology or [SOCIA01H Introduction to Sociology 1 and SOCIA02H Introduction to Sociology 2]
2. SOCIB40H Quantitative Methods
3. SOCIB41H Qualitative Methods
4. SOCIB42H Classical Sociological Theory I
5. SOCIB43H Classical Sociological Theory II
6. One full-credit equivalent in Sociology at the C-level
SOCB4H3 Quantitative Methods in Social Research
Introduces overview of logic and methods of social science research (research design, causal analysis, data collection). Students learn to evaluate critically previous studies, and then undertake their own analysis with data sets provided by instructor.
Limited enrolment: 170
Exclusion: SOC200Y, SOC200Y, SOC201Y
Prerequisite: [SOC200H & SOC2A2H] or [SOC2A1H]

SOCB4A3 Qualitative Methods in Social Research
The course discusses principles, procedures, data analysis, and presentation of qualitative methods in social research. Selected loci include qualitative interviewing, ethnographic observation, and text analysis.
Limited enrolment: 170
Exclusion: SOC200Y, SOC200Y, SOC201Y
Prerequisite: [SOC200H & SOC2A2H] or [SOC2A1H]

SOCB4A3C Classic Sociological Theory I
The development of classic sociological theory from its Enlightenment origins to the eve of the 20th century. Special emphasis is placed on the work of Auguste Comte, Herbert Spencer and Karl Marx.
Limited enrolment: 170
Exclusion: SOC203Y, SOC203Y
Prerequisite: [SOC200H & SOC2A2H] or [SOC2A1H]

SOCB4A3H Classic Sociological Theory II
The development of classic sociological theory from the end of the 19th century to the eve of World War II. Special emphasis is placed on the work of Emile Durkheim, Max Weber and Georg Simmel.
Limited enrolment: 170
Exclusion: SOC203Y, SOC203Y
Prerequisite: [SOC200H & SOC2A2H] or [SOC2A1H], SOC2B2H

SOCB4A3H Urban Sociology: Micro-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 post-industrial, industrial, corporate and post-modern cities.
Limited enrolment: 170
Exclusion: SOC205Y, SOC205Y
Prerequisite: [SOC200H & SOC2A2H] or [SOC2A1H]

SOCB4A3H Urban Sociology: Macro-Analysis
Examines the organizational and social psychological dimensions of urbanism in relation to local neighborhoods, subcultures, networks and lifestyles. Students will be required to undertake a fieldwork study as part of the course requirements.
Limited enrolment: 170
Exclusion: SOC205Y, SOC205Y
Prerequisite: [SOC200H & SOC2A2H] or [SOC2A1H], SOC2B4H

SOCB4A3H Social Class and Stratification I
The description and analysis of the patterns of social stratifications and their impact on social mobility in urban society. Emphasis is placed on the work of Emile Durkheim, Max Weber and Georg Simmel.
Limited enrolment: 170
Exclusion: SOC205Y, SOC205Y
Prerequisite: [SOC200H & SOC2A2H] or [SOC2A1H], SOC2B4H

SOCB4A3H 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: SOC2A1Y, SOC2B2Y
Prerequisite: [SOC200H & SOC2A2H] or [SOC2A1H]

SOCB4A3H 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 and ethnic stratifications. Selected focii include: socialization; courtship and marriage; heterosexuality and homosexuality; gender division of labor; immigrant families; childbearing and childrearing; divorce; domestic violence; elderly care.
Limited enrolment: 170
Exclusion: SOC2A1Y, SOC2B2Y
Prerequisite: [SOC200H & SOC2A2H] or [SOC2A1H]

SOCB5H3 Deviance and Normativity I
This course explores how deviance and normativity is constructed and contested in everyday life. The course revolves around the themes of sexuality, gender, poverty, race and ethnicity. This course is taught in English.
Limited enrolment: 170
Exclusion: SOC2A1Y, SOC2B2Y
Prerequisite: [SOC2A1H & SOC2A2H] or [SOC2A1H]

SOCB5H3 Deviance and Normativity II
This course explores how deviance and normativity is constructed and contested in everyday life. The course revolves around the themes of sexuality, gender, poverty, race and ethnicity. This course is taught in French.
Limited enrolment: 170
Exclusion: SOC2A1Y, SOC2B2Y
Prerequisite: [SOC2A1H & SOC2A2H] or [SOC2A1H]
SOCI523H Sociology of Work and Industry I

Economic activity drives human society. This course explores the nature of work, how it is changing, and the impact of changes on the transition from youth to adult life. It also examines race and gender in the workplace, female labour force participation, and why we call some jobs "professional", but not others.

Limited enrolment: 70
Exclusion: (SOCB3Y), SOC207Y, SOC17Y, SOCS30Y
Prerequisite: [SOCA1H1 & SOCA2H1] or [SOC0A1Y]

SOCI558H3 Social Movements

The development of an approach to social movements which includes the following: the origin of social movements, mobilization processes, the career of the movement and its routinization. The course readings will be closely related to the lectures, and a major concern will be to link the theoretical discussion with the current readings of movements.

Limited enrolment: 50
Exclusion: [SOCA01H1 & SOCA02H1 or SOC0A1Y], SOCB4H1, SOCB4H2, SOCB4H3

SOCI655H3 Gender and Information Technology

Examines transformation and perpetuation of gender stratification in relation to 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: 50
Exclusion: [SOC356Y], Prerequisite: [SOCA01H1 & SOCA02H1 or SOC0A1Y], SOCB4H1, SOCB4H2, SOCB4H3

SOCI659H3 Sociology of Gender and Work

Explores 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, work-life, the relation of work and family, gender and class solidarity, and the construction of gender identity through occupational roles.

Limited enrolment: 20
Exclusion: SOC366H
Prerequisite: [SOCA01H1 & SOCA02H1 or SOC0A1Y], SOCB4H1, SOCB4H2, SOCB4H3

SOCI859H3 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: 20
Exclusion: SOC366Y
Prerequisite: [SOCA01H1 & SOCA02H1 or SOC0A1Y], SOCB4H1, SOCB4H2, SOCB4H3
SocD340H3 Advanced Seminar in Sociological Theory
Exploration of significant topics of interest in contemporary sociological theory. Designed for and restricted to students enrolled in the final year of the Specialist Program in Sociology.
Prerequisite: SOC310H1 & SOC320H1 or (SOC310Y1 or SOC310Y2), SOC310H3, SOC310H5, SOC310H6, SOC310H8, SOC310H9, and SOC310H11.

SocD340H3 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: SOC310H1 & SOC320H1 or (SOC310Y1 or SOC310Y2), SOC310H3, SOC310H5, SOC310H6, SOC310H8, SOC310H9, SOC310H11.

SocD343H3 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.

Statistics

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. (Colombo), Ph.D. (Missouri), Lecturer

Discipline Representative: A. Hashim (416-287-7252)
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.
STA320H1 and STA321H1 serve as a non-technical introduction to statistics. These courses are designed for students from disciplines where statistical methods are applied. STA352H1 is a mathematical treatment of probability. STA579H1 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 NATURAL SCIENCES
(See the Physical Sciences Scarborough section of this Calendar.)

MAJOR PROGRAM IN STATISTICS
Supervisor of Students: A. Hashim Email: hashim@utsc.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.

ANTA10H1, ANT302H, GGRA02H, GGRA03H, GGRA05H, GGRA06H, CLA302H, ENG10H1, ENG11H1, ENG20H1, ENG21H1, ENG22H1, ENG23H1, ENG24H1, ENG25H1, ENG26H1, HLSA40H1, HLT40H1, LGA41H1, LGA42H1, LGA43H1, LGA44H1, LGA45H1, LGA46H1, LGA47H1, LGA48H1, LGA49H1, LGA49H2, LGA49H3, PHA10H1, PHA11H1, WSTA41H1.

Program Requirements
This program requires 8.0 full credits.

First Year
CSAC45H1 Introduction to Computer Science
or
PSCB37H1 Introduction to Scientific Computing
MATH23H1 Linear Algebra I
MATH30H1 Calculus I
MATH35H1 Calculus II for Physical Sciences
or
MATH37H1 Calculus II for Mathematical Sciences (recommended)

Second Year
MATH24H1 Linear Algebra II
MATH44H1 Techniques of the Calculus of Several Variables I
MATH45H1 Techniques of the Calculus of Several Variables II
STAT35H1 An Introduction to Probability
STAT35H2 An Introduction to Statistics

Third and Fourth Year
STAC50H1 Regression Analysis
2.0 FCE from any C or (300-400 at St. George) level courses in STA
1.0 FCE from any C or (300-400 at 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.

ACTB40H3 Fundamentals of Investment and Credit
This course is concerned with the concept of financial interest. Topics covered include: interest, discount and present values, as applied to determine prices and values of annuities, mortgages, bonds, equities, loan repayment schedules and consumer finance payments in general, yield rates on investments given the costs of investments.
Exclusions: ACTT40H1, MATH20H3
Prerequisite: MAT230H1 and one of MAT255H, MAT265H or MAT275H or MAT275H & a cumulative GPA of 2.5 or higher
Note: Students enrolled in or planning to enroll in any of the BBA programs are highly urged not to take ACTB40H1 because ACTB40H1 is an exclusion for MGTC30H1, a required course in the BBA degree. Students in any of the BBA programs will thus be forced to complete MGTC30H1, even if they have credit for ACTB40H1, but will only be permitted to count one of ACTB40H1 and MGTC30H1 towards the 20 FCEs required to graduate from UTSC.

ACTB47H3 Introductory Life Contingencies
This course provides an introduction to insurance and annuity concepts from a mathematical point of view. Topics covered include: probability theory applied to survival and to cost and risks of life assurances, life annuities, and pensions, analysis of survival distributions, international actuarial notation, annual benefit premium.
Exclusion: ACTT49H1
Prerequisite: ACTB40H1 & MATB41H1 & STA352H
STAB22H3 Statistics I
This course is a basic introduction to statistical reasoning and methodology, with a minimal amount of mathematics and calculation. The course covers descriptive statistics, populations, sampling, confidence intervals, tests of significance, correlation, regression and experimental design. A computer package is used for calculations.
Exclusion: ANTC13H1, ECEM10Y9, ECEM11H1, PSYB07H1, SO2B06H1, STAB24H3, STAB27H3

STAB27H3 Statistics II
This course follows STAB22H3, and gives an introduction to regression and analysis of variance techniques as they are used in practice. The emphasis is on the use of software to perform the calculations and the interpretation of output from the software. The course reviews statistical inference, then turns simple and multiple regression and the analysis of some standard experimental designs. Students may be asked to complete a project as part of their assessed work for this course.
Exclusion: ECEM12H1, STAB27H1, STAB32H1
Prerequisite: STAB22H1

STAB50H3 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: STA107H1, STA257H1
Prerequisite: MAT138H1 or MAT137H1

STAB57H3 An Introduction to Statistics
A mathematical treatment of the theory of statistics. The topics covered include: the statistical model, data collection, descriptive statistics, estimation, confidence intervals and P-values. Likelihood inference methods, distribution-free methods, bootstrapping, Bayesian methods, relationship among variables, contingency tables, regression, ANOVA, logistic regression, applications. A computer package will be used.
Exclusion: STA26H3
Prerequisite: STAB52H1

STAC42H3 Multivariate Analysis
Linear algebra for statistics. Multivariate distributions, the multivariate normal and some associated distribution theory.
Exclusion: STA47H1
Prerequisite: STAC47H1

STAC52H3 Experimental Design
The statistical aspects of collecting and analyzing experimental data. Complete randomized and restricted randomized schemes.
Exclusion: STA32H1
Prerequisite: STAC57H1

STAC57H3 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 transfer function models, forecasting, seasonal adjustment, spectral estimation. Introduction in the use of SAS.
Exclusion: STA457H1
Prerequisite: STA321H

STAC62H3 Stochastic Processes
This course continues the development of probability theory begun in STAB52H3. Topics covered include Poisson processes, Gaussian processes, Markov processes, renewal theory, queuing theory, martingales and stochastic differential equations.
Exclusion: STAC67H1 or STAB57H1

STAC67H3 Regression Analysis
Exclusion: STA220H
Prerequisite: (STAB67H3) or STAB57H1

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

Visual and Performing Arts

Faculty List
G. Scavizzi, M.A., Ph.D. (Turin), Professor Emeritus
M.S. Fain, M.A., Ph.D. (Bryn Mawr), Professor Emeritus
M. Gavvani, A.B. (Princeton), M.A. (Pittsburgh), Ph.D. (Toronto), Professor
W.R. Brown, M.A., Ph.D. (Toronto), Associate Professor
L. Chain, M.A. (Columbia), Associate Professor
C. Clark, M.A. (McGill), M.A., Ph.D. (Cambridge), Associate Professor
J. Mays, M.A., Ph.D. (Toronto), Associate Professor
A.G. Paterl, M.A. (McGill), Ph.D. (Birmingham), Associate Professor
M.Q. Schandorf, M.A., Ph.D. (Toronto), Associate Professor
P. Stavroulakis, B.A. (McGill), M.A., Ph.D. (Toronto), Associate Professor
L. Verga-Gervais, M.A., Ph.D. (Rabat), Associate Professor
R.A. Harris, M.Phil., Ph.D. (London, U.K.), Assistant Professor
A. Serafin, B.A. (York), Assistant Professor
D. Holman, B.F.A. (Kansas City Art Institute), Senior Lecturer
T. Mars, Senior Lecturer
S. Bahl, B.F.A. (York), M.A. (NYU), Lecturer
E. Healy, B.A. (Guelph), M.A. (Toronto), Lecturer
D. Hnacyk, B.F.A. (Ottawa), Lecturer
T. Lamie, B.A. (Dalhousie), M.F.A. (York), Lecturer
A. Reppeau, M.A. (Montréal), Lecturer
A. Sauer, B.A. (Dartington), Ph.D. (Queen’s, Belfast), Lecturer
G. Smith, M.A., Ph.D. (Toronto), Lecturer
L. Whiting, Dip Op Perf. (Toronto), Lecturer
K. Wright, LL.B., Lecturer

Discipline Representative: John Mays (416-287-7911)

Art history, arts 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 many plays, concerts, exhibitions and other arts events, and should also consider participating actively in, for instance, the season of choir and band courses and the public productions at the Le Guin Lee Brownlee Theatre. Please contact the UTAC Cultural Affairs office (416-287-7078) or the VPA Discipline Representative.

Societates Programmes
Art Management (Co-op)

Art and Culture

Major Programmes
Art History
Drama
Music and Culture

Studio

Minor Programmes
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
- VPAA05H1 Collaborations in the Visual and Performing Art
- VPAAB0H1 Dialogues in the Diaspora
- And any course in VPH

Drama
- VPAA05H1 Collaborations in the Visual and Performing Arts
- And any course in VPD

Music
- VPAA05H1 Collaborations in the Visual and Performing Arts
- And any course in VPM except VPAA03H1

Studio
- VPAA05H1 Collaborations in the Visual and Performing Arts
- And any course in VPS

SPECIALIST PROGRAM IN ART AND CULTURE

Supervisor of Studies: M. Schonberg (416-287-7165) Email: schonber@utsc.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 arts 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 Studio.

The VPA Study Guide is available at:
http://www.arts.utoronto.ca/7e8humdev/VPA/VPA/study-guide/

Program Requirements

The Specialist Program in Art and Culture requires the completion of 13.5 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

   - 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.

   - 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.

2. Core courses required for all streams:

   - PHILB03H1 The Art of Thinking
   - VPAAB0H1 Visual and Performing Arts in the Digital Age
   - VPAAB0H4 Cultural Theory
   - VPHC47H1 The Body in Modernity: Theories and Representations
   - VPHC48H1 The Body in Contemporary Culture: Theories and Representations
   - VPAU03H1 Intermediate Seminar
   - VPAU05H1 Senior Project

3. At least 1 full credit from:

   - A B level course in English chosen in consultation with the Program Supervisor
   - PHILB03H1 Philosophy of Art
   - VPAU05H1 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

2. Core courses required for all streams:

   - PHILB05H1 The Art of Thinking
   - VPAAB0H1 Visual and Performing Arts in the Digital Age
   - VPAAB0H4 Cultural Theory
   - VPHC47H1 The Body in Modernity: Theories and Representations
   - VPHC48H1 The Body in Contemporary Culture: Theories and Representations
   - VPAU03H1 Intermediate Seminar
   - VPAU05H1 Senior Project

3. At least 1 full credit from:

   - A B level course in English chosen in consultation with the Program Supervisor
   - PHILB03H1 Philosophy of Art
   - VPAU05H1 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

2. Core courses required for all streams:

   - PHILB05H1 The Art of Thinking
   - VPAAB0H1 Visual and Performing Arts in the Digital Age
   - VPAAB0H4 Cultural Theory
   - VPHC47H1 The Body in Modernity: Theories and Representations
   - VPHC48H1 The Body in Contemporary Culture: Theories and Representations
   - VPAU03H1 Intermediate Seminar
   - VPAU05H1 Senior Project

3. At least 1 full credit from:

   - A B level course in English chosen in consultation with the Program Supervisor
   - PHILB03H1 Philosophy of Art
   - VPAU05H1 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 for all streams:
   PHIL85H The Art of Thinking
   VPA60H Visual and Performing Arts in the Digital Age
   VPA80H Cultural Theory
   VPHC47H The Body in Modernity: Theories and Representations
   VPHC48H The Body in Contemporary Culture: Theories and Representations
   VPA86H Intermediate Seminar
   VPA86H Senior Project
3. At least 1 full credit from:
   A B level course in English chosen in consultation with the Program Supervisor
   PHIL80H Philosophy of Art
   VPA86H 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 for all streams:
   PHIL85H The Art of Thinking
   VPA60H Visual and Performing Arts in the Digital Age
   VPA80H Cultural Theory
   VPHC47H The Body in Modernity: Theories and Representations
   VPHC48H The Body in Contemporary Culture: Theories and Representations
   VPA86H Intermediate Seminar
   VPA86H Senior Project
3. At least 1 full credit from:
   A B level course in English chosen in consultation with the Program Supervisor
   PHIL80H Philosophy of Art
   VPA86H Cultural Pluralism I

VPA80H3 Collaborations in the Visual and Performing Arts
An introduction to interdisciplinary collaborations 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.

VPA80H3 Visual and Performing Arts in the Digital Age
An introduction to the use of computers in the visual and performing arts. Demonstrations/ workshops will illustrate current standards and future possibilities in the handling of digitalized images, sound and text. Projects will allow opportunities for practical experience.
Exclusion: VPA80H3

VPAC30H3 Introduction to Contemporary Cultural Theory
An introduction to key concepts and issues in contemporary cultural theory. Emphasis on critical reading, thinking, and writing. Students will engage with a wide range of theoretical and methodological developments in the study of art and culture, including: cultural studies, feminism, and postmodernism. Prerequisite: any 4 full credits.

VPAC30H3 Cultural Pluralism and the Arts I
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: VPA80H3 or ENGB65Y, or permission of the instructor.

VPAC30H3 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 liminality in relation to experiences of local Canadian artists.

VPAC30H3 Intermediate Seminar
An exploration of the connections between the arts and the tensions inherent in making those connections. Individual research areas will be the starting place for extensive reading, research and discussion. Prerequisite: At least 5 full credits in the Specialist in Art and Culture including one credit at the B-level.

VPAC31H3 Cultural Pluralism and the Arts II
An examination of best practices in the management of the arts in a pluralist society. Prerequisite: VPA80H3 or permission of the Instructor.

VPAD50H3 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 VPAC30H. Prerequisite: VPA30H

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.utscc.uottawa.ca/73kand/VP/Art History/study guide/

MAJOR PROGRAM IN ART HISTORY
Supervisor: Shbel E. Hamdy (416-287-3109) Email: hamdy@utscc.utoronto.ca

Program Requirements
Students must complete seven full credits as follows:
1. VPA80H3 plus one half credit at the A-level in art history.
2. Four full credits from the series VPHB44H-VPHB64H. Students may substitute one full credit from VPA or another discipline (such as VPA80H3 or PHIL80H3), with the Supervisor's approval.
3. Two full credits in art history at the C-/D-level (or at the 300-400-level on the St. George campus).
VPHB404H3 Mediterranean Art
The origins of European artistic traditions in the early Christian, Byzantine, and Islamic periods; the development of religious art in the medieval and Renaissance periods; and the impact of these traditions on later European art. Exclusion: (VPA403H) (VPA406H) recommended.
Exclusion: (VPA403H) (VPA406H) recommended.
Prerequisite: VPH848H (VPA406H).

VPHB404H3 African Art
The history of African art from pre-colonial to contemporary times, with a focus on the cultural, social, and political contexts in which it was created and its impact on the world. Exclusion: (VPA403H) (VPA406H) recommended.
Prerequisite: VPH848H (VPA406H).

VPHB404H3 The Human Figure in Greek Art
An introduction to the development of the human figure in Greek art, from prehistoric times to the Classical period. Exclusion: (VPA403H) (VPA406H) recommended.
Prerequisite: VPH848H (VPA406H).

VPHB404H3 Caravaggio and Neoclassical Art
An exploration of the life and work of Caravaggio, as well as the artistic developments in the neoclassical period. Exclusion: (VPA403H) (VPA406H) recommended.
Prerequisite: VPH848H (VPA406H).

VPHB404H3 Paris: The Capital of the 19th Century
The role of Paris in the development of modern art, with a focus on Impressionism and Post-Impressionism. Exclusion: (VPA403H) (VPA406H) recommended.
Prerequisite: VPH848H (VPA406H).

VPHB404H3 German Art
The history of German art from the Middle Ages to the 20th century, with a focus on the development of painting, sculpture, and architecture. Exclusion: (VPA403H) (VPA406H) recommended.
Prerequisite: VPH848H (VPA406H).

VPHB404H3 Space, Place and the Arts
This course examines the relationship between art and the built environment, with a focus on the ways in which artistic practices are shaped by and shape our understanding of space and place. Exclusion: (VPA403H) (VPA406H) recommended.
Prerequisite: VPH848H (VPA406H).
VPH1B64H3 Representing Religions: The Rise of States, World Religions, and Art Patronage
This course will investigate the strength of the visual in practices of worship and art patronage. It focuses attention upon the role of the sacred in understandings of arts in diverse cultural contexts and across time and will also question the role of the profane and the secular in art history.

VPH1B57H3 Buddhist Arts and Cultures
This course will serve as an introduction to the field of Buddhist art historiography, with an emphasis on the relationships between visual arts, Buddhist philosophy and religion, and the cultural manifestations of the faith and its arts across the world. The classes will take advantage of collections at the ROM. Exclusion: This course may not be taken after or concurrently with VPH1C55H.

VPH1B58H3 Art and the Everyday: Mass Culture and the Visual Arts
This course explores the relationship between visuality and practices of everyday life. It looks at the interaction of the political, economic and aesthetic aspects of mass media with the realm of "fine" arts across history and cultures. We will explore notions of the public, the mass, and the simulacrum.

VPH1C42H3 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.
Exclusions: FAM1228H, FAM1593H
Prerequisite: One credit in art history at the B-level or permission of the instructor.

VPH1C45H3 Seminar in Twentieth-Century Art
Special topics in twentieth-century painting and sculpture. The subject will change from term to term. After introductory sessions outlining the subject and ways of getting information about it, seminar members will research and present topics of their choice.
Exclusion: (VPH1C45H)
Prerequisite: One credit in modern art history at the B-level or permission of the instructor.

VPH1C46H3 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: (VPH1C46H)
Prerequisite: VPH1B52H or permission of the instructor.

VPH1C47H3 The Body in Modernity: Theories and Representations
An interdisciplinary course about the body in art, film, photography, narrative and popular culture. How bodies are written or visualized in representing normality or perversion, "feminine" or "masculine," as heroic, as beauty or monstrosity, legitimacy or illegitimacy, nature or culture. Same as ENG156H.
Limited enrolment: 45
Exclusion: ENG156H
Corequisite: Two full credits from (ENG200H, ENG202H, ENG203H, ENG204H, ENG206H, ENG208H, ENG210Y, (VPH1A41H, VPH1A46H, VPA1A0H, (VPA1A43H, VPA1A55H, VPH1B53H, (VPA1B57H).
WSTA101Y or permission of the instructors.

VPH1C48H3 The Body in Contemporary Culture: Theories and Representations
A course focusing on the experience of the body in the public spaces of the modern city and in cyberspace. Of special interest will be the viewports of artists, writers, and filmmakers who explore how the "other" is constructed in terms of class, culture, and ethnicity. Same as ENG157H.
Limited enrolment: 45
Exclusion: ENG157H
Corequisite: Two full credits from (ENG200H, ENG202H, ENG203H, ENG204H, ENG206H, ENG208H, ENG210Y, (VPH1A41H, VPH1A46H, VPA1A0H, (VPA1A43H, VPA1A55H, VPH1B53H, (VPA1B57H).
WSTA101Y or permission of the instructors.

VPH1C49H3 Advanced Studies in Art Theory
The class will read selected recent cultural theory and art theory and consider its implications for a variety of works of art, and will investigate selected exhibition critiques and the critical discourse surrounding the careers of individual artists.
Prerequisite: (VPH1A46H or VPH1B53H)
Corequisite: Two credits at the B-level in art history and/or studio, or permission of the instructor.

VPH1C50H3 Word and Image
The interface between modern and contemporary arts and the communicative power of language, the written word and graphic systems. By examining the long-standing, cross-cultural links between the verbal and the visual, we will consider how artists combine narrative content and graphic designs of letters, words and conventional and invented inscriptions.
Prerequisite: (VPH1B58H or VPH1B59H or permission of instructor.

VPH1C51H3 Issues in Contemporary Global Arts
Theoretical debates and institutional structures that surround the production, circulation and interpretation of the arts in a transnational art world, paying particular attention to the interplay of identity and visibility. Works by artists from throughout the globe, contributing to a global contemporary art discourse and genre will be considered.
Exclusion: (VPH1C51H)
Prerequisite: (VPH1B48H, VPH1B49H, VPH1B598H or permission of instructor.

VPH1C52H3 Issues in Contemporary Global Arts
The theoretical debates and institutional structures that surround the production, circulation and interpretation of the arts in a transnational art world, paying particular attention to the interplay of identity and visibility. Works by artists from throughout the globe, contributing to a global contemporary art discourse and genre will be considered.
Prerequisite: (VPH1B48H, VPH1B49H, VPH1B598H or permission of instructor.

VPH1C53H3 The Silk Routes
The Silk Routes were a lacing of highways connecting Central, South and East Asia and Europe. Utilizing the Royal Ontario Museum's collections, classes held at the Museum and UTSC will focus on the art produced along the Silk Routes in 7th to 9th century Afghanistan, India, China and the Taklamakan region.
Prerequisite: One full credit in art history or in Asian or medieval European history or permission of instructor.

VPH1C54H3 Art Writing
Art criticism as a complex set of practices performed not only by critics, at historians, curators and the like, but also by artists (and collectors). The traditional role of art critics in the shaping of an art world, and the parallel roles played by other forms of writing about art and culture (from anthropology, sociology, film studies). Limited enrolment: 25
Prerequisite: Two full credits at the B-level from VPA, VPH, and/or VPS.

VPH1C55H3 Religion in the Arts: Hinduism and Buddhism
The course explores Eastern religions and artworks, with a specific focus on Hinduism and Buddhism in art from India, Pakistan, Sri Lanka, and China. Investigation of context, use, and symbolism, parallels with the examination of rituals and beliefs. The classes will take advantage of collections at the ROM.
Prerequisite: VPH1B66H

VPH1C56H3 Religion in the Arts: The Judeo-Christian Traditions
The course will add to how arts give expression to spiritual beliefs and reflect patronage and iconographic debates operating across the cultures of the Judeo-Christian worlds. Investigation of context, use, and symbolism, parallels with the examination of rituals and beliefs. The classes will take advantage of collections at the ROM and the AGO.
Prerequisite: VPH1B66H
traditions within the Buddhist world. The classes will take advantage of collections at the ROM and elsewhere in Toronto. Prerequisite: VP1H566H

VPHC585H3 Topics in Buddhist Art This upper level seminar will address theoretical concerns and advance methodological approaches to the study of Buddhist arts. Topics will vary according to year and materials available.

Prerequisite: VPHB566H

VPHC586H3 Art in Global Cities This course looks at the global city as a habitat for the creation of visual, performing arts and architecture. How have cyberpace and increased transnational flows of art and artists changed the dynamic surrounding urban arts? What are the differences between the arts within the modern and global contemporary city?

Exclusion: VPHC582H3, ANT3B2H3

Prerequisites: VPHB568H or VPHB589H or permission of instructor

VPHC588H3 Scholarly and Aesthetics in Buddhist Art: The Literated and the Glitterati This course explores the relationships between scholarly, religious and aesthetic

Arts Management

SPECIALIST (CO-OPERATIVE) PROGRAM IN ARTS MANAGEMENT Supervisor of Studies: Sherri Helwig (416-287-7166) Email: helwig@stn.utoronto.ca

Co-op Co-ordinator: Shelley Crawford (416-287-7114) Email: crawford@stn.utoronto.ca

The Co-operative Program in Arts Management is designed for students who share an interest both in the arts and in business of the arts, and normally requires four to five years to complete. It combines academic study in a wide variety of subjects with practical work experience. Previews: students for permanent employment as arts managers or for further studies in Arts Management, Business Administration, Museum Studies, Drama, Music, Art History or Studio. This program requires fifteen academic full credits plus two work terms of twelve to sixteen weeks each. For further information, see http://www.stn.utoronto.ca/coops/

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

Program Admission

Enrolment in the program is limited. Admissions are granted on the basis of applicants' academic performance, background in one or more of the arts, and interest and potential ability in Arts Management.

Program Requirements

Work terms

Students are normally eligible for a work placement after their second year of study. Work terms may begin in May, September or January. The places of work will vary widely according to availability and to a student's needs and abilities. To compete for work placement a student must be in good standing in the Program and must have completed at least ten full credits including:

- Two full credits from the artistic field
- VPA1A1H Introduction to Arts Management
- VPA1B2H Marketing and Communications in the Arts and Cultural Sector
- VPA1B4H Fundraising and Resource Development in the Arts and Cultural Sector
- MGT2A3H Introduction to Management I
- MGT2A4H Introduction to Management II

Students must also have completed the Co-op Work Prep Course.

Course Requirements

Students complete six full credits in the arts management core program, three full credits in the management field, six full credits from the artistic field, and a further five full credits from the elective field. Continuous consultation with the Supervisor of Studies is strongly encouraged for students in each year of their program.

d) 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 drawn from the Elective Field of Study (see 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 Supervisors of Studies in Arts Management and the chosen artistic field.
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c) Elective Field of Study
A further five full credits - or four, for those students choosing to complete the Major program in their artfield - 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 two first years of the program
The first year of study would normally consist of VPA.A06H, VPAB12H or VPAB14H, one FCE from the artistic field (including VPA.A05H, MGT.A03H and MGT.A04H, perhaps NMA.A01H or CSCA.A02H), and further courses in the artistic management field and/or electives. Students will also normally take the Co-op Work Prep Course in the fall session.

The second year of study would normally consist of five full credits to include VPAB05H, VPAB06H, VPAB12H or VPAB14H, VPA.A06H or (VPAB13H or NMA.A01H or CSCA.A02H) (not taken in the first year), and a balanced mixture of management, artistic and elective courses.

VPA.A04H 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.

VPA.B12H Marketing and Communications in the Arts and Cultural Sector
This course facilitates an understanding of the knowledge and skills required for arts managers 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.
Prerequisite: VPA.A01H

VPA.B13H 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 statements preparation and analysis, internal control and management information systems, budgeting and programming, cash and resource management, and various tax-related issues.
Exclusion: MGT.B03H
Prerequisite: VPA.A01H & [VPA.B12H or VPAB14H]

VPA.C14H 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.
Prerequisite: VPA.A01H

VPA.C13H Planning and Project Management in the Arts and Cultural Sector
This course provides a broad foundation of project management and planning knowledge and skills. Topics such as project and special event management (including tours, festivals, etc.), and strategic and business planning (including entrepreneurship) will be discussed in the context of organizational processes.
Prerequisite: VPA.A01H & VPAB12H & VPAB14H

VPA.C12H Cultural Policy
A survey of the principles, structures and patterns of cultural policy and arts funding, both nationally and internationally. The course will explore a wide range of cultural policy issues, addressing both the subsidized arts and cultural industries sectors, and exploring the strengths and weaknesses of particular policy approaches.
Prerequisite: VPAB05H

VPA.B16H3 Legal and Human Resources Issues in Arts Management
This course is a study of legal and practical human resource issues from an art 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 enrollment: 30
Prerequisite: One B-level course in Arts Management

VPA.D12H3 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.
Prerequisite: VPAC13H & one, preferably two, work terms (COYC01H)

VPA.D15H3 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. Adopting a case study approach, the course will examine issues and controversies in the performing and the visual arts.
Prerequisite: VPAC15H

VPA.D14H3 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 enrollment: 6
Exclusion: MGT.D01H
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 dramatic 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: https://www.uts.ccutoronto.ca/vampus/vpa/drama/studyguide/
VPDB11H3 Studies in Theatre History II: From 1642 to World War One
A study of theatre history from the Restoration through the rise of modernism. Using a thematic rather than a chronological approach, this course will examine Western theatre within the given period, as well as its terms of the social and cultural function of theatre as an art form. Exclusion: DRM260H1, DRM262H1

VPDB14H1 Introduction to Asian Theatrical Traditions
Exclusion: DRM400Y, (VPAC31H3)

VPDB15H3 Studies in Modern and Contemporary Theatre
A study of twentieth-century theatre history. The developments in and practices of Western theatre from the post-World War One era to the present day. Exclusion: DRM260H1

VPDB13H1 Theatre in Canada
An examination of the development of professional theatre in Canada from 1945 to the present. Special attention will be paid to the development of the major theatrical festivals, the regional theatre movement, the rise of alternative theatre, and current theatrical trends. Exclusion: (VPAR34H3), DRM260H1, DRM262H1

VPDB14H3 Introduction to Asian Theatrical Traditions
Exclusion: (VPAR23H3)

VPDB01H3 Advanced Workshop: Performance
A continuation of the exploration of advanced performance techniques begun in VPDB00H3.
Exclusion: DRM400Y, (VPAC31H3)
Prerequisite: (VPB31H1) or (VPD90H1) & (VPA03H3) & permission of the UTSC VPA Drama Program teaching staff.

VPD80H3 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: (VPAB33Y), DRM254Y

VPD84H3 Experiencing the Live Theatre
Discovering the special nature of various forms of live theatre. Students will attend six professional productions in a variety of theatres in Toronto, and write reviews of their theatre-going experiences. In lectures and seminars students will study contemporary theatrical practices from the perspective of playwrights, performers, etc.
Exclusion: (VPAB23H3)

VPD90H3 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: (VPAB33Y), DRM254Y

VPD82H3 Introduction to Performance II
A continuation of VPD81H1, with 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 sub-text and to develop a character by exploring motivation, defining objectives and establishing physical action.
Exclusion: (VPAA31Y)
Prerequisite: VPD81H1 and permission of the instructor

VPD80H3 Studies in Theatre History I: From the Greeks to 1642
A study of theatre history from classical Greece until the closing of the theatres in England.
Using a thematic rather than chronological approach, this course will examine Western theatre within the given period, as well as in terms of the social and cultural function of theatre as an art form. Exclusion: (VPB20H1), DRM260H1, DRM262H1

VPD81H1 Intermediate Workshop in Performance I
This course is intended for students who wish to continue the study of acting for the stage of 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: (VPAA31Y)
Prerequisite: (VPB31H1) or (VPD90H1) & (VPD80H3) & permission of the UTSC VPA-Drama Program Teaching Staff.

VPD82H1 Intermediate Workshop in Performance II
A continuation of VPD80H1, with an emphasis on more advanced performance techniques.
Exclusion: (VPAA31Y)
Prerequisite: (VPD80H1) or (VPAA31Y)
and permission of the instructor

MINOR PROGRAM IN DRAMA
Supervisor of Studies: M. Schenberg (416-287-7165) Email: schenber@utsc.utoronto.ca

Program Requirements
Students must complete four full credits as follows:
1. VPA0401H, VPA0411H or either of the following courses: VPDB11H3, VPDB12H1, VPDB13H1, VPDB14H1
2. VPDB01H Introduction to Performance I
3. at least two of the following courses: VPDB01H, VPDB03H, VPDB12H1, VPDB13H1, VPDB14H1
Note: Students who do not qualify for VPDB01H should take at least four of the following courses: VPDB11H, VPDB12H1, VPDB13H1, VPDB14H1

1. 3.5 additional credits in Drama, one full credit of which must be in the C- or D-level.

VPDA80H3 Introduction to Performance I
This course introduces students to performance in its broadest application. It investigates a wide range of performance practices and theories, including traditional Western approaches to basic acting technique and contemporary performance practices informed and inspired by the visual arts, music, dance and theatre, as well as codified and ritualized approaches to performance from around the world. In a workshop environment students will learn a variety of theatrical techniques that will inspire individual creativity.
Exclusion: DRM200Y, (VPAA31Y)
Prerequisite: Note: Permission to enrol will be given based on an interview with the UTSC VPA-Drama Program teaching staff.
VPCDC6H3 Directing for the Theatre
The practical study of basic stage directing techniques in a workshop atmosphere.
This course will provide students with the fundamental tools of the director's craft, through an investigation of the principles of script analysis, composition and staging, director/actor communication and rehearsal technique, and will culminate in the presentation of four plays.
Limited enrollment: 10
Prerequisite: VPD801H1S & VPD802H1S plus one FCE in Drama & permission of instructor.

VPCDC6H3 Technical Production II
A continuation of Technical Production I. Students will explore in greater depth the practical application of the technical elements of theatrical production. As part of the course, students will assume responsibility for some of the technical positions available in UTSC productions.
Exclusion: (VPA635Y)
Prerequisite: VPD803H1S

VPCDC6H3 Writing About/For the Live Theatre
A course intended for students who wish to learn about writing analytically or critically for the theatre, and/or who are interested in writing short pieces for the stage.
Exclusion: VPD804H1S or permission of the instructor.

VPCDC6H3 The American Musical Theatre
An introduction to the development of American musical theatre.
Through research into and discussion of American musical theatre history, artists, and landmark productions, students will develop a critical understanding of the form, audience at a local professional musical production will allow for discussions about the influence of the form on theatre in Canada.
Limited enrollment: 40
Prerequisite: 2 FCEs in Visual & Performing Arts courses or permission of instructor.

VPCDC6H3 "Live!"
"Live!" investigates interdisciplinary modes of contemporary performance. Within a studio context, this course serves as an advanced exploration of 21st century Live Art. This interactive course reviews the dynamics of time, space and existence, and asks fundamental questions about the body and performance. Same as VPC5C78H1S.
Limited enrollment: 12
Exclusion: VPC5C78H1S
Prerequisites: VPD5B01H1S & VPD5B12H1S or VPD5B78H1S

VPCDC6H3 Modern and Contemporary Comedy
A study of the comic form in modern and contemporary theatre and film.
Exclusion: (VPA628Y)
Prerequisite: VPD800H1S

VPCDC6H3 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.

VPCDC6H3 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: VPD5D1H1S
Prerequisites: VPCDC6H3 or VPC5C31H1S and permission of the UTSC VPA-Drama Teaching Staff

VPCDC6H3 Directed Studio Class I
Supervised studio class 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: (VPA622Y), (VPA621Y)
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 wish 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 appreciation of music. Students who have taken music at high school or elsewhere will find a selection of historical, theoretical, and practical courses for 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 musical making, particularly the series of Performance courses.
The Music Study Guide is available at:
http://www.arts.savanna.ca/~/aiband/or/VPAMusic/studyguide/

Performance Courses
The following performance courses are available to all qualified faculty, staff and students (where a non-credit basis). Enrolment is by interview/audition held during Orientation or the first week of classes in Fall and Winter sessions. (Details are posted on the bulletin board outside AA-302 Music Studio and on the web Study Guide). Credit students should register for the course, but will be admitted only upon successful completion of the interview/audition.
VPA101H Concert Choir Ia
VPA111H Concert Choir Ib
VPA121H Concert Band Ia
VPA141H Concert Band Ib
VPA151H Repertoire Choir I
VPA161H Concert Choir Ia
VPA171H Concert Choir Ib
VPA231H Concert Band Ia
VPA241H Concert Band Ib
VPA541H Repertoire Choir II
VPA551H Concert Choir Ia
VPA551H Concert Choir Ib
VPA561H Concert Band Ia
VPA571H Concert Band Ib
VPA711H Concert Choir IIIa
VPA711H Concert Choir IIIb
VPA721H Concert Band IIIa
VPA721H Concert Band IIIb
VPA731H Concert Band IIIc
VPA741H Concert Band IIId
VPA741H Concert Band IIIe
VPA741H Concert Band IIIf
General Interest Courses
Listening to Music: Music of World's Peoples, Music for the Theatre, Jazz, Popular Music, Film Music, and the Repertoire Choir assume 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, VPMB860H-VPM880H1 "Topics in Music and Society," which cycle frequently during the three academic sessions.
• C-level Course, Genre 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: John Mayo (416-287-7191) Email: mayo@utsc.utoronto.ca

Program Requirements
Students are required to complete seven full credits as follows:
1. VPA049H1 Collaboration in the Visual and Performing Arts
2. VPM980H1 Introduction to Music
3. VPM999H1 Materials of Music I
4. VPM999H1 Music of the World's Peoples
5. A half credit from any Visual and Performing Arts B-level course list, with the exception of Music Performance courses.
6. A half credit from any Visual and Performing Arts C-level course list, with the exception of Music Performance courses.
7. One full credit in Performance.

MINOR PROGRAM IN MUSIC HISTORY
Supervisor of Studies: John Mayo (416-287-7191) Email: mayo@utsc.utoronto.ca

Program Requirements
Students are required to complete four full credits as follows:
1. VPA049H1 Collaboration in the Visual and Performing Arts
2. VPM980H1 Introduction to Music
3. VPM999H1 Materials of Music I
4. VPM999H1 Music of the World's Peoples
5. A half credit from any Visual and Performing Arts B-level course list, with the exception of Music Performance courses.
6. A half credit from any Visual and Performing Arts C-level course list, with the exception of Music Performance courses.
7. One full credit in VPM at the C-level.

VPM860H3-Concert Choir Ia
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: VPA989Y, VPM999Y

VPM740H3-Concert Choir Ib
A continuation of VPM740H1
Exclusion: VPA989Y, VPM999Y

VPM707H3-Concert Choir IIa
A continuation of VPM707H1
Exclusion: VPA989Y, VPM999Y

VPM707H3-Concert Choir IIb
A continuation of VPM707H2
Exclusion: VPA989Y, VPM999Y

VPM810H3-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 of VPM893H1 (Listening to Music) and prepares students for further studies in music at the university level.
Exclusion: VPA910H
Prerequisite: VPA939H1 or (VPA993H1 or equivalent

VPM800H3-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: VPA900H
Prerequisite: Royal Conservatory Grade II (grade rudiments) or equivalent

VPM839H3-Learning 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: VPA939H1

VPM890H3-Repertoire Choir I
A practical study of music from the choral repertoire and an introduction to music theory.
Exclusion: VPA849H1, VPA939H1

VPM890H3-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 an important role in social and cultural life. Audio-visual materials feature prominently. No previous musical experience is necessary.
Exclusion: MUS2001L, VPA999H1

VPM870H3-Concert Choir IIa
A continuation of VPM710H1
Exclusion: VPA989Y, VPM999Y
Prerequisite: VPM710H1 or (VPA989Y or VPM999Y)

VPM870H3-Concert Choir IIb
A continuation of VPM710H2
Exclusion: VPA989Y, VPM999Y
Prerequisite: VPM710H2 or (VPA989Y or VPM999Y)
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buses percussion instruments - and examine the integral function of games in Baltimore cultural, ceremonial, and religious life. No previous musical experience is necessary.

VPMB97H3 Performing Arts of Asia
An exploration of music, dance, and drama in East Asia, Southeast Asia, and South Central Asia with particular reference to the cultural, social, cultural, and political contexts of music-making. Students will study the Peruvian & Mexican traditions, and popular/contemporary developments. Prerequisite: VPSA80H1 or VPAIA80H1

VPMB86H3 Topics in Music and Society Before 1600
Selected topics in music and society up to 1600. 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 enrolment: 40
Exclusion: VPAIA86H1
Prerequisite: VPMAS0H1 or VPAIA80H1 & VPMAS80H1 or VPAIA80H1

VPMB87H3 Topics in Music and Society from 1600 to 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 and Rococo eras, with an emphasis on how the music is interpreted today. Limited enrolment: 40
Exclusion: VPAIA87H1
Prerequisite: VPMAS0H1 or VPAIA80H1 & VPMAS80H1 or VPAIA80H1

VPMB88H3 Topics in Music and Society after 1900
Selected topics in music in society after 1900. Uses a thematic approach to understand musical modernism and the competing artistic, social, cultural, and political contexts of music-making since the turn of the twentieth century. Exclusion: VPAIA88H1
Prerequisite: VPMAS0H1 or VPAIA80H1 & VPMAS80H1 or VPAIA80H1

VPMB86H1 Materials of Music II
A continuation of VPMAS0H1. Exclusion: VPAIA86H1
Prerequisite: VPMAS0H1 or VPAIA80H1 or Royal Conservatory Grade III harmony or equivalent.

VPMB85H3 Music for the Theatre
An introduction, across time and cultures, to how music is combined with other arts in the theatre. Broad topics of study include opera, film music, puppet theatre, dance-drama, ballet, and musicals. Students will study audio-visual materials and, where possible, attend live performances. No previous musical experience is required.
Exclusion: VPAIA85H1

VPMB84H1 Jazz
A history of jazz from its African and European roots to present day experimental. Surveys history of jazz styles, representative performers and contexts of performance. No previous musical experience is required.

VPMB85H3 Repertoire Choir II
A continuation of VPMAS5H1. Exclusion: VPAIA85H1
Prerequisite: VPMAS5H1 or VPAIA85H1

VPMB86H3 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: VPAIA86H1

VPMB85H3 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: VPMAS5H1

VPMB86H3 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, film, radio, etc.), urbanization, social and political issues, pop icons, dance and cultural migration. Prerequisite: VPMAS6H1 or VPAIA86H1

VPMC75H3 Concert Choir (III)
A continuation of VPMAS5H3. Exclusion: VPAIA75H3
Prerequisite: VPMAS5H3 or VPAIA80H1 & VPMAS80H1 or VPAIA80H1

VPMC75H3 Concert Choir (III)
A continuation of VPMAS5H3. Exclusion: VPAIA75H3
Prerequisite: VPMAS5H3 or VPAIA80H1 & VPMAS80H1 or VPAIA80H1

VPMC72H3 Concert Band (III)
A continuation of VPMAS2H3. Exclusion: VPAIA72H3
Prerequisite: VPMAS2H3 or VPAIA80H1 & VPMAS80H1 or VPAIA80H1

VPMC74H3 Concert Band (III)
A continuation of VPMAS4H3. Exclusion: VPAIA74H3
Prerequisite: VPMAS4H3 or VPAIA80H1 & VPMAS80H1 or VPAIA80H1

VPMC26H2 Opera
A thematic approach to the study of opera. Students will study and analyze selected arias using librettos, scores, and audio-visual materials, and attend live productions where possible to enhance their appreciation of the art form and to develop their critical skills. Exclusion: VPAIA26H2
Prerequisite: VPMAS6H1 or VPAIA90H1 & [one course from these series VPMAS80H1, VPMAS90H1 or VPAIA80H1 or VPAIA90H1] or permission of instructor.

VPMC85H3 The Orchestra and Its Music
A study of the changing musical, social, and economic contexts of the orchestra and the variety of music written for it. Evolving configuration of the ensemble; patronage and location (theatre, church, court, conservatory, city, etc.); representative examples of music from different periods; changing audiences and societies; mechanical reproduction. Prerequisite: VPMAS9H1 or VPAIA9H1 & [one course from the series VPMAS8H1, VPMAS8H1 or VPAIA8H1 & VPAIA9H1]

VPMC85H3 Topics in Canadian Music
A thematic approach to the study of music in Canada. Topics include the formation of Canadian musical identity, the development of artistic organizations and institutions, and detailed analyses of musical compositions. Prerequisite: VPMAS9H1 or VPAIA9H1 & [one course from the series VPMAS8H1, VPMAS8H1 or VPAIA8H1 & VPAIA9H1]

VPMC85H3 Music and Gender
A study of women in music, and the role of gender studies in musical criticism. An exploration of the socio-cultural contexts of music-making by women, their roles as composers, performers, and patrons in Western art music, jazz, and popular music, and the construction of gender in cross-cultural perspective. Exclusion: HUMU267H
Prerequisite: VPMAS3H1 or VPAIA89H1 or [WSTA1A0H & WSTA1A2H] or [WSTA1A0H]

VPMC85H3 Beethoven
An examination of the iconic status of the composer through a study of his life and times, representative works, and current issues in Beethoven studies, including historically informed performance practice and socio-political uses of his music. Prerequisite: VPMAS80H1 or VPAIA89H1 & VPMAS8H1 or VPMAS8H1 or VPAIA89H1
VPMB850H3 Special Topics in Music and Culture
The investigation of an area of current interest and importance in musical scholarship. The topic to be examined will change from year to year and will be available in advance on the course website. Prerequisite: VPMA890H1 or VPAB990H1 & (one course from the series VPMB880H4-VPMB990H4 or [VPAB980H4-VPAB990H4]).

VPMB903H3 Materials of Music III
Introduction to musical composition through the application of techniques studied in Materials of Music I and II. Students will be encouraged to develop their individual musical styles and to create original works. Exclusion: VPAC908H1. Prerequisite: VPAB906H1 or VPAB906H1.

VPMD801H3 VPMD810H3 Independent Study in Music
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: VPAD828H1, VPAD825Y, (VPMD825Y). Prerequisite: At least two full credits in music at the B- and C-level; permission of the instructor to be obtained by the last day of classes in the previous summer. Students are required to complete a total of four full credits in Studio. The four credits will be made up as follows:
1. VPAA69H1 Collaborations in the Visual and Performing Arts
2. VPAS52H1 Foundation Studies in Studio
3. One-half credit from VPAB96H1 Sculpture Concepts
4. VPSC66H1 Theory and Practice: Two-Dimensional Work
5. VPSC67H1 Theory and Practice: Three-Dimensional Work
6. VPSC68H1 Theory and Practice: Time-based media
7. Two full credits, one at the C- or D-level, in the chosen area of study.

VPAE41H3 Painting I
An investigation of the basic elements and concepts of painting through experimentation in scale and content. Limited enrolment: 20. Exclusion: VPAB93H1, (VPAB92H1). Prerequisite: VPAA62H1 or (VPAA62H1). Corequisite: VPAS70H1 or (VPAS70H1). Credit: 4.

VPAE42H3 Foundation Studies in Studio

VPAE47H3 Drawing I
An investigation of the various approaches to drawing, including working from the figure and working with ideas. Limited enrolment: 20. Exclusion: VPAB93H1, (VPAB92H1). Prerequisite: VPAA62H1 or (VPAA62H1). Credit: 4.

VPSB39H3 Sculpture Concepts
An investigation of the changes in sculpture in the 20th century with an emphasis on contemporary art. Limited enrolment: 15. Exclusion: VPAB93H1, (VPAB92H1). Prerequisite: VPAA62H1 or (VPAA62H1). Prerequisite: permission of the instructor.

VPDB86H3 Site-Specific Work

VPST81H3 Books and Multiples
An exploration of the history and use of handbound books and multiples by visual artists. Limited enrolment: 20. Exclusion: VPAB93H1. Prerequisite: VPAA62H1 or (VPAA62H1). Prerequisite: permission of instructor.

VPAS70H1 Drawing II
A continuation of VPAS70H1 with an accent on images and concepts developed by individual students. Limited enrolment: 20. Exclusion: (VPAB92H1, VPAS70H1). Prerequisite: VPAA61H1 or (VPAB92H1) or (VPAB92H1).
VPSC54H3 Painting II
An advanced course for students who are able to pursue individual projects in painting, with a focus on contemporary practice and theory.
Limited enrolment: 15
Exclusion: VIS101H
Prerequisite: VIS201H or permission of the instructor

VPSC55H3 Drawing III
An advanced course for students who are able to pursue individual projects dealing with the complex relationships between drawing and other art practices like installation, painting and mixed media.
Limited enrolment: 20
Exclusion: VIS105H
Prerequisite: [VPSC370H or (VPSC371H) and one other course at the B-level in VPS] or [VPSC373H or (VPSC374H) and one other course at the B-level in VPS] or [VPSC375H or (VPSC376H) and one other course at the B-level in VPS] or [VPSC377H]
Prerequisite: [VPSC370H or (VPSC371H) and one other course at the B-level in VPS] or [VPSC373H or (VPSC374H) and one other course at the B-level in VPS] or [VPSC375H or (VPSC376H) and one other course at the B-level in VPS] or [VPSC377H]

VPSC56H3 Theory and Practice: Two-Dimensional Work
An exploration of ideas and practice with an emphasis on two-dimensional work, including digital imaging.
Exclusion: [VPAC568H, VIS211H]
Prerequisite: At least 0.5 credit in a B-level course dealing primarily with two dimensions.

VPSC57H3 Theory and Practice: Three-Dimensional Work
An exploration of ideas and practice with an emphasis on three-dimensional work.
Exclusion: [VPAC570H, VIS306H]
Prerequisite: At least 0.5 credit in a B-level course dealing primarily with three dimensions.

VPSC58H3 Theory and Practice: Time-Based Media
An exploration of ideas and practice with an emphasis on time-based media, performance, video, audio, and installation.
Limited enrolment: 20
Exclusion: VIS102H
Prerequisite: 3.5 FCEs at the B-level in VPS & [VPSC568H or VPSC576H] or [VPSC577H] & permission of instructor.
Prerequisite: [VPSC568H or VPSC576H] & permission of instructor.

VPSC59H3 Advanced Special Topics in Studio
Selected topics for intensive practical and theoretical study in the studio. Topics will change from session to session.
Limited enrolment: 20
Exclusion: VIS401H, VIS402H, VIS403H & VIS404H
Prerequisite: [1 FCE from VPSC568H, VPSC569H, VIS201H, VIS202H] & permission of instructor.

VPAC569H3 Advanced Studio Practice
An advanced course for students ready to work independently on their own projects. Students will be expected to work on their projects from conception to a final exhibition in the student-run gallery. Students may work in their choice of media with the written permission of the instructor.
Limited enrolment: 20
Prerequisite: VPSC568H or [VPSC569H or VPSC571H] & at least one-half credit at the C-level in the area of intended study.
Women's Studies

(B.A.)

Faculty List

C. Bertrand-Jennings, L. és L. (Paris), Ph.D. (Wayne State), Professor Emerita
P-C. Hsia, B.A. (National Chiao-tung University), M.A. (Chinese Cultural University), M.A. (UCLA), Ph.D. (UCLA), Professor
A. Sev'er, B.A., M.A. (Windsor), Ph.D. (York, Canada), Professor
L. Carney, M.A. (Columbia), Associate Professor
C. Clark, M.A. (McGill), M.A., Ph.D. (Cornell), Associate Professor
M.B. Goldman, M.A., (Victoria), Ph.D. (Toronto), Associate Professor
F. Issacovitch, B.A., M.A. (York, Canada), Associate Professor
D.M. Janes, B.A. (Queen's), M.A. (Cornell), Ph.D. (Michigan), Associate Professor
L. Lange, B.A., M.A. (Manitoba), Ph.D. (Toronto), Associate Professor
M. Lam, B.A. (Kansas), M.A., Ph.D. (Toronto), Associate Professor
D. McCarthy, B.A. (Toronto), Associate Professor
R. Spendak, B.A. (McGill), M.A., Ph.D. (Toronto), Associate Professor
D.E. Bender, M.A., Ph.D. (New York), Assistant Professor
K. Liddle, B.A. (Oberlin College, Ohio), M.A. (Auburn University, Alabama), Ph.D. (Emory University, Atlanta), Assistant Professor
M. Malani, B.A. (Dalhousie), PhD., (London), Assistant Professor
A. Maurice, M.A., Ph.D. (Cornell), Assistant Professor
A. Muller, B.A. (California), M.A., Ph.D. (Yale), Assistant Professor
C. Guiberman, B.A. (Manitoba), M.E.S. (York), Senior Lecturer
T. Marc, Senior Lecturer
N. Johnston, B.A. (Trinity), M.A., PhD York University, Lecturer
T. Lamie, B.A. (Dalhousie), M.A., (York), Lecturer

Discipline Representative: D.M. James (416-287-7170)

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 of 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 interpretation of ideas 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 ethnic-cultural communities and neighbourhood communities in Canada and around the world, and an important area 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 enrolling 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/~ehumidiv/Women_studies/studyguide/index.htm

MAJOR PROGRAM IN WOMEN'S STUDIES

Supervisor of Students: C. Guiberman (416-287-7134) Email: c.guiberman@utoronto.ca

Program Requirements

Students must select seven full credits as follows:
1. WSTA40H3 Introduction to Women's Studies and
2. WSTA40H3 Women: Initiatives for Change or WSTB05H3 Current Research on Women's Issues
3. WSTB11H3 Race, Class and Gender
4. WSTD01H3 Senior Project in Women's Studies or WSTD02H3 Women's Studies: Research and Methods
5. One further credit in WST
6. 3.5 credits from the list below (students should check course descriptions for prerequisites):
   - ANTC14H3 Feminism and Anthropology
   - ANTC23H3 Genders and Sexualities
   - ANTD21H3 The Body in Culture and Society
   - ENGB15H3 Women and Literature: Forging a Tradition
   - ENGB21H3 Gender and Genre
   - ENGD11H3 Alice Munro
   - ENGD77H3 Women Travellers before 1830
   - ENGD98H3 Women and Canadian Writing
   - HSCI25H3 Immigration and Race Relations in Canadian History
   - HSCI26H3 Selected Topics in Canadian Women's History
   - HLTC20H3 Women and Health: Past and Present
   - LINC28H3 Language and Gender
   - PHLB13H3 Philosophy and Feminism
   - POLC70H3 Women in Political and Social Thought I
   - POLC71H3 Women in Political and Social Thought II
   - PSYD11H3 Psychology of Gender
   - PSYD22H3 Socialization Processes
   - SOCB44H3 Family and Society
   - SOCB44H3 Family in Transition
   - SOCC9H3 Gender and Information Technology
   - SOCC9H3 Sociology of Gender and Work
   - SOCC10H3 Gendered Selves, Gendered Lives and Inequalities
   - SOCC21H3 Changing Family Life in Canada
   - SOCC29H3 Cross-Cultural Family Forms
   - SOCC31H3 Gender and the Sociology of Higher Education
   - VPRC47H3 The Body in Modernity: Theories and Representations
   - VPRC48H3 The Body in Contemporary Culture: Theories and Representations
   - ENGC71H3
   - VPHE25H3 Women in the Arts: Hot Mamas, Amazons, and Maddonas
   - VPHE30H3 Music and Gender
   - WSTB12H3 Women: Issues of Violence and Safety
   - WSTB13H3 Women and the Media
   - WSTC11H3 Women and Development
   - WSTC11H3 Applied Study in Women and Development
   - WSTC14H3 Women, Community, and Policy Change
   - WSTC14H3 Women, Justice and the Media
WSTC17H Women, Writers and Popular Literature
WSTC20H1 Women and Environment
WSTC30H1 Selected Topics in Women's Gender Studies
WSTC31H1 Selected Topics in Women's Gender Studies
WSTC32H1 Selected Topics in Women's Gender Studies
Note: Not all courses in 300s are offered every year.

MINOR PROGRAM IN WOMEN'S STUDIES
Supervisor of Studies: C. Guberman (416-287-7134) Email: c.guberman@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. WSTB11H Race, Class and Gender

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 60 in the Major Program, at least one of these credits must be at the C- or D-level.

WSTB05H 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 practice in critical analysis of contemporary issues as they affect women globally. Issues will be drawn from a range of disciplines, including history, sociology, education, literature, the arts and sciences.
Prerequisite: WSTA01H, (NEW160Y), WGS160Y

WSTB11H 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: (WSTB11Y)
Prerequisite: WSTA01H & WSTA02H or WSTA03H or permission of the instructor

WSTB12H3 Women: Issues of Violence and Safety
An analysis of violence against women and initiatives toward creating safety.
We will take a historical, cultural and structural approach to studying family, state, economic, and ideological violence against women. We will explore initiatives toward making communities safer, including strategies for prevention and education.
Exclusion: (NEW373H), WGS373H
Prerequisite: WSTA01H & WSTA02H or one half credit from the list provided in 60 in the Major Program) or (WSTA01Y) or permission of instructor.

WSTB13H3 Women and the Media
An interdisciplinary approach to feminist critiques of the media.
The representation of women will be examined in media such as film, television, video, newspapers, magazines and radio.
Students will also develop a perspective on women's participation in, and contributions toward, the various media industries.
Exclusion: (NEW271Y), WGS271Y
Prerequisite: WSTA01H & WSTA02H or WSTA01Y or permission of the instructor.

WSTC10H3 Women and Development
How development affects, and is affected by, women around the world.
Topics may include labour and economic issues, food production, the effects of technological change, women organizing for change, and feminist critiques of traditional development models.
Exclusion: WSTC10Y, (NEW427Y), WGS427Y
Prerequisite: WSTA01H & WSTA02H or WSTA01Y or (IDS00H) or (IDS02H) or permission of the instructor

WSTC11H3 Applied Study in Women and Development
An examination of a critical problem within the global context in as it affects women in their communities.
The class as a whole will determine the issue under consideration.
Exclusion: WSTC10Y, (NEW427Y), WGS427Y
Prerequisite: WSTC10H

WSTC14H3 Women, Community and Policy Change
An examination of the impact of social policy on women's lives from a historical perspective.
The course will survey discriminatory practices in social policy as they affect women and immigration, health care, welfare, and the workplace. Topics may include maternity leave, sexual harassment, family benefits, divorce, and human rights policies.
Prerequisite: (WSTA01H & WSTA02H) or (WSTA01Y) or permission of the instructor

WSTC16H3 Women, Justice and the Media
Examining popular media, detective fiction, and film, students will investigate themes of criminality, gender and violence in relation to the social construction of justice.
Some criminal cases involving female defendants will also be analyzed to examine historical issues and social contexts. Debates in feminist theory and criminology will be discussed.
Limited enrolment: 40
Prerequisite: WSTA01H and WSTA02H or one FCE in Sociology or permission of instructor
Recommended (but not required): WSTB11H

WSTC17H Women Writers and Popular Literature
This course examines women's contributions, as writers, editors, publishers, and readers, to popular literature in a variety of genres, and feminist strategies to examine their cultural and social significance. Students will be introduced to theoretical approaches to North American and international reading communities, and women's writing in a global context.
Limited enrolment: 40
Prerequisite: (WSTA01H and WSTA02H) or ENG050H or permission of the instructor
Recommended (but not required): WSTB11H
Admissions

Re-enrolling University of Toronto Scarborough Students
Students previously registered at UTSC who wish to return after suspension or an absence of three or more consecutive sessions (at least 17 months) must submit an "Application To Re-Enroll" at the Registrar’s Office. This form may be printed from our web site www.utsc.utoronto.ca/Registrar. Students who studied elsewhere during their absence from UTSC should apply to 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.

- Late March for the Summer Session
- Mid-June for the Fall Session
- Mid-June for the Winter Session

Applications to re-enroll will be considered ONLY if received before classes begin in the 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 or Admissions and Student Recruitment
- University of Toronto
- University of Toronto Scarborough
- 355 Bloor Street West
- 1245 Military Trail
- Toronto, Ontario, Canada M5S 1A3
- Toronto, Ontario, Canada M1C 1A4
- Telephone: 416-978-2190
- Telephone: 416-287-7529
- Website: www.adm.utoronto.ca
- Website: www.utsc.utoronto.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 for initial processing. Students who are currently enrolled full-time in an 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.uoac.on.ca (telephone: 519-823-1940).

Internal UofT Transfer applications, Part-time Degree and Non-Degree on-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:

WSTC30H3 Women and Environments
An examination of the impact the environment has on women's lives around the world. Current and historical perspectives.
Topics will include: the impact of environmental degradation on women's bodies; planning for safer places; global sustainable development; conformance; the gender division of spaces.
Prerequisite: Two full credits in WST, or permission of the instructor

WSTC30H3 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: WSTA01H1 & WSTA02H1 or WSTA01Y1 or permission of the instructor

WSTD01H3 Senior Project in Women's Studies
Students will choose a topic of special interest to them, and undertake an in-depth investigation of the topic under the supervision of a Women's Studies faculty member.
A substantial essay on the approved topic will be given to two evaluators, the course Co-ordinator and the supervising faculty member.
Prerequisite: WSTA01H1 & WSTA02H1 or WSTA01Y1 & WSTA02Y1 & one and one-half credits from the courses listed in 83 and 86 in the Major Program.

WSTD02H3 Women's Studies: Research and Methods
Students will design and conduct a qualitative research project about women. Field work is the basis of this course. It will also include an overview of the various phases of carrying out research: planning the research project, choosing appropriate methods for data collection, analyzing the data and reporting the results.
Prerequisite: WSTA01H1 & WSTA02H1 or WSTA01Y1 & WSTDB01H1 & one and one-half credits from the courses listed in 83 and 86 in the Major Program.
Co-operative 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.

2006 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

2006/2007 Fall/Winter Session Deadlines:
Full-time degree study:
• March 1 for 105 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 U of T degree applications, for applicants who have registered in other divisions of U of T
• April 1 for 105F applications, for applicants who are residing in USA
• March 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.bat.utoronto.ca/mbgt

General Admission Requirements to the University of Toronto Scarborough for 2006-2007

Applicants from Ontario Secondary Schools Under 1999 OSSD Diploma (4 year) requirements
• Applicants must be eligible to receive the Ontario Secondary School Diploma (OSSD)
• Applicants must present at least six (6) Grade 12 University (U) courses or University/College (M) courses
• One credit must be Grade 12 English ENG4U
• Applicants must present credits to satisfy any prerequisites of specific courses or specific programs in which they intend to enrol.
• Applicants must satisfy English Facility Requirements

Applicants from Ontario Secondary Schools under 1989 OSIS 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 (OAC's).
• One credit must be Grade 12 English U/4U
• Applicants must present credits to satisfy any prerequisites of specific courses or specific programs in which they intend to enrol.
• Applicants must satisfy English Facility Requirements

English Facility Requirements
Applicants may request the English Facility Requirements brochure from Admissions and Awards or visit the website:
www.adm.utoronto.ca/adm/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 ENG4U 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 (TOEFL). The minimum requirements are: Internet-based Test - total score of 100 = 22 on Writing Paper-based Test - total score of 60 and 5.0 on TWE
• Michigan English Language Assessment Battery. The minimum requirement is an overall score of 55 with no part score below 50.
• International English Language Testing System (IELTS). The minimum requirement is an overall band of 6.5, with no band below 6.
• English Language Diagnosis and Assessment/Certificate of Proficiency in English (ELDA/COPE). The minimum requirement is an overall score of 5 with 2 in Writing and 1 or 2 in the Reading and Listening sections.
• Academic Preparation ESL Course completed at the University of Toronto, English Language School, School of Continuing Studies (http://www.bat.utoronto.ca/esp/css/). The minimum requirement is a grade of B at the 60 (Advanced) level.
• See the website (www.adm.utoronto.ca/adm/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).

Preliminary
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 MG54U Geometry and Discrete Mathematics
• Most science programs require MCM4U Advanced Functions and Introductory Calculus
• Many science programs also require SCI4U Chemistry and SPI4U Physics.

Mathematics Preparation
For programs that require calculus, applicants must complete a course similar to the Ontario calculus course (MC34U Advanced Functions and Introductory Calculus) that includes the following content: Concepts of advanced functions; introduces basic concepts of calculus;
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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 must qualify for consideration by completing Grade 12 U/M courses (or equivalent). Applicants from Centennial College who are applying for admission to a joint program at 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/~jprogs/

Applicants holding the International Baccalaureate Diploma (IB) Candidates who have completed the Diploma with good results will be considered for admission. Those seeking admission to programs that require mathematics must present Higher Level Mathematics, Standard Level Mathematics or Mathematics Methods with the Calculus option. Transfer credit is awarded for most higher level subjects completed with a grade of 5, 6 or 7. http://www.utsc.utoronto.ca/admissions/IB2006.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 Reasoning Test or ACT plus good results on three SAT Subject tests 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/AP2006.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 websites 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 resident in Ontario for at least twelve months may be considered for admission as mature students. The applicants must complete, with high standing, (a) one of Woodsworth College’s Academic Bridging Program courses or (b) two Grade 12 U/M courses completed after the student is 21 years of age. One course must be English ENG4U. Further information on the Academic Bridging Program is available at http://www.wdwc.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: (1) Status in Canada. As 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 Refugees) by Citizenship and Immigration Canada, admitted to and remaining in Canada (i) Age: The applicant must be 21 years of age by October 1 of the Fall Session or by July 15 for the Summer Session.

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.G.E.P. courses (Transfer credit is granted to candidates who have completed more than the 12 academic required C.G.E.P. 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. Insolur as possible, acceptance of transfer credit should allow for maximum recognition of previous learning experience in university level courses. Subject to degree, grade and program requirements, any course offered for credit by one university shall be accepted for credit by another university when there is virtual equivalency in course content. Note that students who are transferring to the University of Toronto Scarborough will be required to complete at least half of their degree credits and half of their program requirements at University of Toronto Scarborough students. Students transferring from other divisions of the University of Toronto are exempt from this degree requirement. However, limits on transfer 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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Non-Degree Students
A Non-Degree Student is one who is taking courses at UTSC but 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.utm.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.

Possession of minimum requirements does not guarantee acceptance.

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 & Awards Office (Room AA482), check the Awards bulletin board (located in the Meeting Place) and check the UTSC website for announcements. Some bulletins about awards are sent to current students by email. The official award records are on file in the Financial Aid & Awards Office. Students should also review the Financial Aid & Awards website at www.utm.utoronto.ca/final Scholarship Inquiries: 416-287-7529. Bursary/UTAPS Grant inquiries: 416-287-7001

A general condition for holding an entrance or in-course award is that the student must register at the University of Toronto 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. Successful applicants will be notified of the awards they received at the time they receive an offer of admission to the University. In considering students for entrance scholarships, the University reserves the right to give preference to students whose marks are the result of a single attempt at each course.

Entrance Scholarship applications can be found at www.utm.utoronto.ca/admissions. For financial need-based scholarships, applicants must complete a University of Toronto Advance Planning for Students (UTAPS) application at www.adm.utoronto.ca/fs/UTAPS/default.htm to qualify. Applicants must be Canadian Citizens or permanent residents of Canada.

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 2007, the University expects to award approximately 12 National Scholarships.

The deadline for submission of Book Award nominations and National Scholarship applications is early October of the student's final year of secondary school.

University of Toronto Scholars 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 $3,000 and may be held 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 18 of these awards at each level. These in-course awards are worth $1500 and are available to other in-course scholarships.

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Lo Family Scholarships
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 Bloom St. W., Toronto, ON, M5S 1A3. Deadline: April 30

Ornst 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*). Complete a UTAPS application. Deadline: 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 his/her school or community. Application required. Complete a UTAPS application. Deadline: March 1.

UTSC Faculty and Staff Award
Awarded to a student based on academic excellence and financial need. Complete a UTAPS application. Deadline: March 1.

UTSC Grad/Alumni Legacy Award
Awarded to a student based on outstanding community service and academic achievement. The student must demonstrate leadership qualities in his/her volunteer role. Application required. Complete a UTAPS application. Deadline: March 1.

Frank M. Waddell Scholarship
Awarded to a student from Brant County, Ontario on the basis of academic excellence. Application required. Submit a letter indicating the Brant County conditions is met to: Waddell Scholarship, Admissions and Awards, 315 Bloom St. W., Toronto, ON, M5S 1A3 Deadline: April 30

In-course Scholarships & Awards
NOTE: The calendar is published in March. At the time of printing, some award criteria may not be finalized. Check the Financial Aid & Awards website for updates to the scholarship program at www.utsc.utoronto.ca/trustid

Undergraduate degree students are considered for in-course awards at the end of the session in which they complete their 5th, 10th and 15th full credit. Most award decisions are made in the summer for students who are eligible for consideration after the previous summer, fall and winter part sessions. It is the practice of the University of Toronto 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 (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.
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 18 scholarships at each level. These in-course awards are worth $1500 and are tenable with other in-course scholarships.

A. D. Allen Scholarship
Awarded to the outstanding student in each year at University of Toronto Scarborough, in my 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 Scarborough Honours List
University of Toronto Scarborough publishes annually an Honours list, including the names of all degree students who have achieved a grade point average of 3.70 or better in their most recent year of full-time study or equivalent amount of part-time study. Students are considered for the Honours list at the end of the session in which they complete their 5th, 10th, 15th and 20th credit. Other students may be nominated by the academic department.

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 Beardmore 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 Beardmore, 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.

Sanford Borden Scholarship in Public Management
Awarded to the student in a specialist program in Management who has achieved the highest grade in the course MGT/ICM 3301 (Public Management).

Myer Brody Prize in Entrepreneurship
Awarded to an undergraduate student enrolled in a Management program who has the highest grade in the course MGT/ICM 3301 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 that year.

Canadian Society for Chemistry, Toronto Section Bock Prize
Awarded to the most improved student entering the fourth year of a specialist program in Chemistry.

Yvesne and John Chiu Award in Genetics
Awarded to a student enrolled in a Biological Sciences program who has the highest grade in BIOT/ICM 3303 Transmission Genetics.

Neil H. Dobbs Award
Awarded to a student on the basis of financial need. Academic merit will also be considered. (OSOTFP)

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. (OSOTFP)

First & 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. (OSOTFP)

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. (OSOTFP)

Fleasa Family Scholarship in Arts and Science
Awarded to a full-time student entering second year 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. (OSOTFP)

Abram Krashinsky Prize in Music
Awarded for the best essay or original composition in a course in music offered at UTSC.

Abram Krashinsky 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 Louten 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 who achieved at least a Grade B standing in the previous year. Financial need must be considered.

Mergerson Scholarship in English
Awarded to an outstanding student who has completed the second year of the major or specialist 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 McFist 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 HISB 4H 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 best 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. Peek 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 BOY A01H and BOY A02H introductory Biology courses (minimum 3.3 GPA A+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 ASTA 401H, ASTA 402H and one B- or C-level course in Astronomy.

Rohm & 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.)

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.)

The Ali Tayyeb Scholarship
Awarded to a student who demonstrates excellent scholarship in Political Geography or studies of developing nations.

Katherine Theil Prize in English
Awarded to the student who, in the year he/she completes the ENGB 301H, ENGB 302H, ENGB 303H, ENGB 404H sequence of courses, has the highest average in those four courses.

Stanley Koza Todorow 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 Bachelors of Science degree.

Toronto Kaleur Leo Club Prize in Physical Sciences – pending approval
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 Kaleur Lions Club Prize in Environmental Science – pending approval
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 Sinic-Canadian Studies
Awarded to the undergraduate, whose academic performance and extra-curricular activities in the area of Chinese studies and Sinic-Canadian studies best exhibits commitment to Chinese-Canadian cultural and economic ties.

University of Toronto 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.

The University of Toronto Women’s Association Lois Dove Memorial Scholarship
Awarded to a student on the basis of excellent academic achievement in the third year of a four-year undergraduate degree program.

Hi-Chik Wan Memorial Scholarship in Management
Awarded to a 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 & Awards Office (Room AA142) and on-line at www.srs.utoronto.ca/findaid

APUS Award for the University of Toronto’s Sesquicentennial
Per-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
Per-time undergraduate students who (a) have completed at least five 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: May 1.

Canadian Federation of University Women (CFUW) Scarbourough Scholarships
Awarded to students entering the third or fourth year of a major or minor program in Women’s Studies who have demonstrated outstanding leadership qualities in their school or community and have financial need. (OSOTF*) Deadline: May 31.

Cultural Pluralism and the Arts Undergraduate Essay Prize
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 instructors to the Chair of the Department of Humanities by April 28, 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.

Jon S. Dellandra Award for International Students
Awarded to an international student entering the final year of an undergraduate program on the basis of exceptional academic achievement and extra-curricular leadership. Students should request an application for this prestigious scholarship from the University of Toronto Alumni Association. The award is normally made in December/January.

Diefenbaker 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 instructors to the Chair of the Department of Social Sciences by April 28, and should include a copy of the essay and a cover page showing full name of the student, student number and the name of the course for which and professor to whom the essay was originally submitted.

Jeffrey and Walewska 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) is involved in extracurricular/community activities and (iii) has shown outstanding improvement in his/her academic standing while studying under challenging personal circumstances. Deadline: May 31.

Filosa Family 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. (OSOTF*)

Anita Fitzgerald Prize in Women’s Studies
Awarded for the best essay in the area of Women’s Studies. Instructors nominate essays.

Jean E. Foley Award
Awarded to a student, alumni/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 29.

Oelof 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 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 Kneer 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 B+ standing) and financial need. Emphasis is placed on academic performance. Deadline: September 29.

Lawrence B. Leverington Mentor Award
Awarded to a student entering the second, third or fourth year 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*) Deadline: September 29.

Sevin Lindsay 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’ contributions to the program and to UTSC will also be considered. (OSOTF*) Deadline: September 29.

Wiles 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 28. 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 Pelze in French
Awarded for the best undergraduate essay in French drama. Instructors nominate essays.

Jovita Nagy Scholastic Awards
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 APUS. Applications available online at www.apus.utoronto.ca

Norton Institute Undergraduate Scholarships
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 UTSC 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/herschool 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: June 30.

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: June 30.

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: June 30.

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 achievements, combined, best exhibit dedication to excellence. (minimum B- average/3.0 GPA). Deadline: September 29.

Residence Life Scholarship
Awards will be given to full-time undergraduate students entering second, third or fourth year who are returning to residence for the following year. ii) have demonstrated a strong involvement in his/her 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 28.

Scarbrough 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.

Scarbrough-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.

We Yue 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 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 mailed to the Co-ordinator 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 Scarborough Access Ability Award
Awarded to an undergraduate student entering second, third or fourth year at UTSC who is registered with AccessAbility Services and/or 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 W. Waddell Scholarship
Awarded to a student from Brant County, 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 online at http://www.adm.utoronto.ca/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 with calculated income 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
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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 2006-2007 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
Applicants must demonstrate financial need. Applications may be obtained from the Financial Aid & Awards or on-line at www.ute.toronto.ca/fulaid. Review application for specific sessional 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'Seeomane Child Care Bursary
Awarded to one or more students who have/will have a child/children at N’Seeomane child care facility on the basis of financial need. Bursary must be applied to fees at N’Seeomane.
Application required. Deadline: July 30.

ScARBorough 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: October/November. Applications are available in the Scarborough Campus Students’ Union (SCSU) Office SL106.

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 Accessibility Services S302.

University of Toronto Women’s Association Bursary
Awarded on the basis of financial need. Submit a bursary application with a letter to Admissions and Awards, 315 Wool Street West, Toronto, ON, M5S 1A3 by September 30. (OSOTP!)

Graduation Awards
Automatically awarded:
Graduation With High Distinction and With Distinction
University of Toronto 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 3.50 or better and will graduate with distinction if their cumulative grade point average is between 3.20 and 3.49. Other students with a cumulative grade point average of 3.20 or better will be considered on an individual basis.

University of Toronto Scarborough Honours List
University of Toronto Scarborough publishes annually an honours list, including the names of all degree students who have achieved a grade point average of 3.70 or better in their most recent year of full-time study or equivalent amount of part-time study. Students are considered for the honours list at the end of the session in which they complete their 5th, 10th, 15th and 20th credits.

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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 Barry Graduation Prize in International Development Studies
Awarded to the outstanding student graduating from the specialist (co-operative) program in International Development Studies.

CGA Ontario Award for Excellence
Awarded to an outstanding graduating student completing a specialist program in Management (B.I.A) who has displayed excellent achievement in accounting, with an average of at least a B+ in MGT601H, MGT606H, MGT607H and MGT608H.

Gordon Cressy Student Leadership Award
Equally for consideration, students must be in their final year, be in good academic standing and must have made a substantial contributions 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 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.

Forsin Prize in Psychology
Awarded to the outstanding member of the graduating class who has completed the specialist program 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 Manzar Graduation Prize in Public Policy
Awarded to the outstanding student graduating in Public Policy, in a major or specialist program.

Orshous Prize in Humanities
Awarded to an outstanding graduating student who has competed 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.

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).
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 when the contravention comes 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 Scarborough. The publication of information in this calendar does not bind the University to the provision of courses, programs, or facilities as listed herein. The University of Toronto Scarborough reserves the right to change without notice any information contained in this Calendar, including any rule or regulation. The Web version of the Calendar at www.uts.utoronto.ca is kept up-to-date with changes made after publication.

Enrolment limits
The University of Toronto Scarborough reserves the right to limit the number of registrants in any Program or course where the number of qualified students exceeds the teaching or other resources available. As far as possible, places will be available for incoming students in A-level courses.

Student Cards
All students are required to have a student card in order to write tests and exams, request transactions at the Registrar's Office, obtain a UTOBiS account, use the Library, Computer Centre, and Athletic facilities. Students who do not have a student card should obtain one from the Registrar's Office. Cards are provided free of charge to all new students. A fee is charged to replace cards.

Students in debt to the University
University of Toronto 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)

Student Web Service
The following debts are taken into consideration when applying sanctions:
- tuition fees
- residence fees and other residence charges
- library fines
- fees made by colleges, faculties, or the University
- health service accounts
- unreturned or damaged instruments, materials, and equipment
- fees 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 or reactivate their PIN
- change address and telephone numbers
- change email address
- create next of kin and emergency contact information
- view personal information
- view their fees account
- download and print 72202A tuition tax certificates
- 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 your birth date (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 when prompted. For security there is a limit of three on the number of attempts the 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 receive 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:
  o How do the courses they plan to take fit into their degree & program?
  o What if they switch from the major to the specialist
  o What if they switch to another area
  o 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:
• registration procedures and information
• the information in this Calendar
• changes to the Calendar
• course timetable for each session
• changes to the course timetable
• examination timetable
• Registration Guide and any amendments
• Academic and financial deadlines
• ROSI Subject POSI codes and enrolment procedures
• link to departmental, discipline and course information, study guides, faculty home pages
• faculty and administration telephone directories
• Petitions Guide for Students, downloadable petition form and the UTSC 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. ANA=Anthropology, CMB=Biomed, "CHEM" indicates a course in Chemistry, HIS=History, "HIST" 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 "D" 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.

4. Credit Value of a Course
The seventh character of the course code indicates the credit value of a course as follows:

<table>
<thead>
<tr>
<th>Final Letter</th>
<th>Credit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Full Credit</td>
</tr>
<tr>
<td>H</td>
<td>Half Credit</td>
</tr>
</tbody>
</table>

5. Campus
The "S" at the end of the code indicates a course on the Scarborough Campus of the University of Toronto.
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. The Registrar’s Office does NOT require notification of a prerequisite waiver. However, when the course being waived is listed as a program requirement, students should discuss the matter in advance with their program supervisor.

2. Students may not register for credit in a course if they have already passed another course shown in the course description as an exclusion to that course.

Note: The Faculty of Arts & Science and the UTSC Calendars do not usually list UTSC courses as exclusions. Students taking such courses must check the UTSC Calendar for possible exclusions. Students who are in any doubt about whether or not an exclusion exists or whether or not a course can be used to meet a prerequisite of another course or can be applied to a program requirement should consult their program supervisor.

3. Students may not re-register for credit in a course if they have already passed that course. Students may re-register in a course they have taken, but failed. In the latter case, both registrations in the course are shown on the student’s record, and both grades count in the student’s grade point average.

4. Students may not register for credit in a course that is a specific prerequisite for a course they have already passed. When this occurs, the course is counted as “extra” (see the section of this Calendar on extra courses). 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 a course for credit, they may register in it as an extra course. In such cases, the course is shown on the student’s record but the grade is not included in the student’s grade point average nor does the course count towards the degree. However, if appropriate, it may be used to meet program requirements that call specifically for it.

6. Students may normally select as many courses as they wish each semester. 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 should read about course load restrictions and requirements in the “Overall standing” section of this Calendar.
- Students who wish to register in courses in the Faculty of Arts and Science or at the University of Toronto at Mississauga should refer to the “Courses on other campuses” section of this Calendar. There are limits to the number of courses that may be taken on other campuses.
- Full-time students are those students who register in at least 1.5 full credits in any session.
- Students who are restricted to part-time studies may have a load of no more than 1.25 full credit 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.
- 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.
- Where multi-sectioned courses have a common examination, students enrolled in an evening section of the course may be required to sit an examination during the day and vice versa. Students may also be required to write Saturday or Sunday term tests or examinations.

Registration

Students are responsible for the accuracy of their own registration. When selecting, adding and dropping courses in ROSI, they should always list their courses upon completing the transaction. Registration consists of two basic steps:

1. Course selection, and
2. Fees payment (or an arrangement of a fee deferral).

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.ssc.utoronto.ca/registrars/)

Note: Degree students who have completed 4.0 or more full credits must be in an appropriate combination of Subject POIs or before they may select courses. (This includes new students with transfer credits.)

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 in ROSI. Information on the fees process is included in the Registration Guide. Students will also receive a registration invoice detailing fees payable for their program of study. For further information go to http://www.utoronto.ca/fees or contact: Student Accounts, University of Toronto, 215 Huron St, Toronto, Ontario, M5S 1A2; telephone: 416-978-2142; fax: 416-978-5772; email: info.studentaccounts@utoronto.ca

Program registration

All degree students with at least 4.0 credits are required to register on ROSI in their Specialist, Major or Minor Programs. Students may register only in Programs (Subject POIs) offered by University of Toronto Scarborough. ROSI Subject POI codes can be found at: http://www.utoronto.ca/registrar. (For regulations governing Programs, are the Programs of Study section of this Calendar.)

Summer Session

Students who registered at UTSC in the 2015 Summer, the 2006 Fall or the 2006 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 (see “Re-enrolling” in the Admissions section of this Calendar).

Fall & Winter Sessions

Students who registered at UTSC in the 2005 Fall, the 2006 Winter or the 2006 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 (see “Re-enrolling” in the Admissions section of this Calendar).

Course changes

Note: For ROSI hours on deadline dates, go to http://www.utoronto.ca/fees.html

Students may add courses or drop courses without academic penalty through ROSI up to the dates stated in the Sessional Dates section of this Calendar. The deadlines for adding or dropping courses are strictly applied.

Students who make changes through ROSI should end their transaction by listing their courses to ensure that the change has been processed properly. They will not receive written confirmation of the change but it will be recorded in the detailed transaction log kept by the University which can be accessed through ROSI.
360 Course changes

At the time students add a course to their record they are accepting responsibility for fees payment for it. Students who drop courses by the appropriate deadline may be entitled to a fees adjustment. (See the fees refund schedule and information published each session by Student Accounts at http://www.utoronto.ca.) Note: Exceptions to the university's fees refund schedule are made only in the case of error on the university's part.

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.utoronto.ca/timetable.

Changing meeting sections in a course
Students may change meeting sections in a course at any time provided that, if the change takes place after the deadline for adding the course, they have appropriate approval. Approval normally comes from the instructor of the new meeting section or from the course coordinator. Changes must be recorded at the Registrar's Office through ROSI (until the last day to add the course) and on a course selection form thereafter. Note: For some course sections, changes are not permitted on ROSI - these are listed in the timetable at www.utoronto.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 Advisor or Registrar's Office staff 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>80-84</td>
<td>Adequate</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>77-79</td>
<td>Credit/No credit course</td>
</tr>
<tr>
<td>B</td>
<td>2.9</td>
<td>75-76</td>
<td>Credit/No credit course</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>70-72</td>
<td>Credit/No credit course</td>
</tr>
<tr>
<td>C+</td>
<td>2.5</td>
<td>67-69</td>
<td>Credit/No credit course</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>63-66</td>
<td>Credit/No credit course</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td>60-62</td>
<td>Credit/No credit course</td>
</tr>
<tr>
<td>D+</td>
<td>1.5</td>
<td>57-59</td>
<td>Credit/No credit course</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>53-56</td>
<td>Credit/No credit course</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
<td>50-52</td>
<td>Credit/No credit course</td>
</tr>
<tr>
<td>CR</td>
<td>No value</td>
<td>No value</td>
<td>Credit in a Credit/No credit course</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td>0-49</td>
<td>No credit in a Credit/No credit course</td>
</tr>
<tr>
<td>NCR</td>
<td>0.0</td>
<td>No Value</td>
<td>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 numerical score on an assignment is not deemed to be automatically equivalent to the corresponding letter grade.

Overall standing
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 "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" (AE) may be assigned. This grade is assigned on the basis of work completed while medical or similar evidence demonstrates that a student is unable to complete course requirements within a reasonable time, and where a student has already completed at least 60% of the work of the course with a grade of C minus or better. Where a student is assigned Aegrotat standing, the course counts as a credit but is not included in any grade point average. Students who require a letter grade will be expected to complete the work of the course.

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

Other notations
The following have no grade point value and do not yield credit:

| WDR | Withdrawal by petition without academic penalty after the relevant deadline. (See "Special Consideration, Petitions and Appeals" below in this section of the Calendar.) |
| GWR | Grade withheld pending review |
| NGA | No grade available |
| EAP | Examination after decision to withdraw in progress |
| NCR | No credit in a Credit/No credit course |

Overall standing
Grad point averages (GPA)
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 Session (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 conditional", "Determination of academic status for re-enrolling students at University of Toronto Scarborough" and "Determination of academic status for students in the Certificate Program in Business" below.
Academic standing 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 Scarborough or in other arts and science divisions of the University. It is determined at the end of each Session.

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

2. On probation
   • Students who have attempted at least three full credit equivalents and have a cumulative GPA of less than 1.60 are placed on probation.
   • Students returning from suspension (see 3 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-enrol 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 an normal course load.
4. While on probation, students must meet with an advisor to discuss the reasons which led to the probation and to plan strategies to improve academic performance. (A list of appropriate advisors is available from the Registrar’s Office.)

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.

Courses on other campuses

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 Scarborough upon application for re-enrollment. Performance in courses taken elsewhere (including other divisions of the University of Toronto) will be taken into consideration in determining whether to approve the application and whether to make any change in the student's academic status. Students who study at other universities without prior permission from University of Toronto Scarborough are unlikely to be eligible for transfer credit for such study. See also the section "Study at other universities."

Determination of academic status for students in the Certificate Program in Business

Academic status is determined at the end of each session as follows for all students who have completed at least two full 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 Scarborough grade point averages, as are all University of Toronto courses taken for credit while registered at University of Toronto Scarborough. Courses taken while registered at other institutions or other divisions of the University of Toronto are not normally included in grade point averages.

Courses on other campuses

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 as a UTSC student may be taken on another campus. Students may be withdrawn from courses after dates have started if their registration violates these rules. (Students who first registered at UTSC in Fall 2002/Winter 2003 or earlier may, if they wish, follow the rules outlined in the 2002/2003 Calendar.)

Note: The Faculty of Arts & Science and the UTSC Calendar do not usually list UTSC courses as exclusions. Students taking such courses must check the UTSC Calendar for possible exclusions. Students who are in any doubt about whether or not an exclusion exists or whether or not a course can be used to meet a prerequisite of another course or can be applied to a program requirement should consult their program supervisor.

Note: Only programs offered by the University of Toronto 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 Scarborough is in fact a separate faculty and rules covering students of University of Toronto 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 to do so prior to taking the courses. Students who intend to count the courses towards Program requirements must also obtain the approval of the Program Supervisor, in writing. Students who study at other institutions without 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 standing.

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 and usually, students are studying on a part-time basis. The Study Elsewhere program allows a student to study full-time in an accredited university in a different cultural setting to enhance the student's educational experience. The program is called "studyElsewhere" where 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 Woodsworth College where faculty of Arts and Science courses are being offered abroad. Woodsworth 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 university 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.utscc.utoronto.ca/admissions
   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 credits 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 granted on a Letter of Permission. A student who completes the final credit(s) for the degree at 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 - Second Language Summer Program (formerly the Summer Language Bursary Program) is administered by the Council of Ministers of Education, Government of Canada, in cooperation with the appropriate provincial departments. In Ontario, this is the Ministry of Training, Colleges and Universities. Students interested in this five-week immersion Program (in Quebec or elsewhere in Canada) should complete the Explore forms promptly upon distribution by the Ministry. Check with the Academic Advising and Career Centre in December for expected date of arrival. The application may also be downloaded from the Ministry website: www.explore.ca.

Consult with an Admissions and Student Recruitment staff member who does transfer credit evaluations and the Study Elsewhere Supervisor in French about choosing three universities offering courses that most closely correspond to the curriculum at the University of Toronto. If you wish to be considered for transfer credit, choose degree level programs offered at "degree-granting" institutions (not colleges) and sponsored by Arts and Science type faculties (not professional faculties or schools of continuing education). Submit the form to the Registrar's Office to verify registration and mail promptly to enhance your chances of obtaining your first choice of university. Once you know the university to which you have been accepted and at least four weeks before your departure, apply for a Letter of Permission. You will be advised of the level in which you must register in order to be eligible for the credit to be transferred.

2. Study Elsewhere Program
   Application available at: www.utscc.utoronto.ca/admissions/
   Deadline to apply: February 1

Students normally apply for a Study Elsewhere year during the third year of a four-year Program. However students may apply after completing four full credits at UTSC. To be eligible for consideration, a student must normally have a cumulative grade point average of 2.5 or better. Students must normally return to UTSC to complete the final year of study. A maximum of 5.0 full credits will be considered for transfer. Since there may be limited information about foreign universities, students should begin their preparation early. Most often students register at the host university and follow its courses for credit. It is possible that students may arrange to take University of Toronto independent study or supervised reading courses under supervision from University of Toronto faculty.

The application requires details about the proposed courses and asks students to show how the intended studies will enhance their studies at UTSC. Students who intend to count the courses towards Program requirements must obtain the approval of the Program Supervisor before submitting the application.

The application will be reviewed by the Study Elsewhere Committee.

1. Student Exchange Programs
   Application available at: www.utscc.utoronto.ca/student.exchange
   Deadline to apply: mid-January, for most programs
The University of Toronto operates several institution-wide student exchange programs, providing excellent opportunities for academic and cultural experiences abroad and in other regions of Canada. Students normally participate in the third year of the four-year honours degree program. To be eligible for consideration, UTSC normally requires that the applicant have a cumulative grade point average of 2.5 or better. Interested students apply through the International Student Exchange Office (ISXO). A typical application is comprised of an application form, academic transcripts, resume and photos, and two reference letters. Candidates of quality for consideration are invited for interviews. Applicants are selected for nomination based on the whole application package, including the interviews. If nominated, the student is asked to complete an application which is then submitted to the host institution by the ISXO on behalf of the student. Though it rarely happens, partner institutions reserve the right to refuse nominated students. As the Hermonlouckx Castle Program (CUSAP) and the Study Abroad Program at Nantes are not exchange programs, the application procedure is different – contact ISXO for details.

If accepted, UTSC students must obtain approval from Program Supervisors and from the Admissions and Transfer Credit Officer at UTSC for courses they intend to take, using the Course Recommendation Form issued with the nomination package.

Below is a list of institutions at which undergraduate programs are available:

<table>
<thead>
<tr>
<th>International Programs:</th>
<th>International Programs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>France</td>
</tr>
<tr>
<td>Universidad Torcuato Di Tella</td>
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**Korea (South)**
- Korea University
- Seoul National University
- Yonsei University

**The Netherlands**
- The University of Amsterdam

**New Zealand**
- University of Auckland
- University of Otago

**Norway**
- University of Oslo

**Poland**
- Jagiellonian University in Krakow

**Scotland**
- University of Edinburgh
- University of Glasgow
- University of St. Andrews
- University of Strathclyde

**Singapore**
- Nanyang Technological University
- National University of Singapore

**Sweden**
- Lund University
- Uppsala University

**Switzerland**
- ETH Zurich

**Taiwan**
- National Taiwan University

**Trinidad and Tobago**
- University of the West Indies (St. Augustine)

**United States of America**
- Kalam Fellowsships Program

**Canadian**
- McGill University
- University of British Columbia

For further information, applications, and an up-dated list of current exchange programs, please contact: International Student Exchange Office, Koffler Student Services Centre, Room 209, 244 College St., Toronto, ON M5S 2E9. Tel: 416-946-3188, Fax: 416-978-6110. E-mail: student.exchange@utoronto.ca

**4. UofT Summer Abroad Programs**

University of Toronto Summer Abroad programs are administered by Woodsworth College in several countries or regions including Australia, Central Europe, China, Ecuador, England, France, Germany, Italy, Japan, Jordan and Mexico. Students take regular UofT Faculty of Arts and Science undergraduate degree courses at a distinguished host institution. All classes are taught in English, with the exception of some language courses. Financial aid is available for most programs. Because the Summer Abroad programs offer regular UofT courses, the course code and final grades will appear on the student’s record as any other UofT course does. For more information, contact:

- Professional and International Programs, Woodsworth College, 119 St. George St, Room 231/233, Phone 416-978-8713, Email: summer.program@utoronto.ca, Website: www.summerabroad.utoronto.ca.
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 four months, suspended for twelve months, suspended for thirty-six months, refused further registration, or suspension deferred;
   • completion of Co-operative Program;
   • completion of degree and Program requirements, and date of conferral of the degree;
   • graduation with high distinction or with distinction.
3. The following kinds of special consideration granted by petition. (See "Special Consideration, Petitions and Appeals" below in this section of the Calendar.)
   • withdrawal without academic penalty from a course after the relevant deadline. (See "Standing in a course" above in this section of the Calendar.)
   • deferral of suspension;
   • award of aggregate standing;
   • other consideration deemed to have altered the academic record.

Ordering Official Copies
Students may obtain copies of their academic transcripts, subject to reasonable notice and upon payment of a fee (per transcript copy). All requests for transcripts are processed centrally at the University of Toronto Transcript Centre on the St. George Campus. Copies of transcripts may be requested via ROSE at the following address: http://www.rose.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 #1066, Toronto, ON M5S 3G3. Payment by mail should take the form of a cheque or money order payable to "The University of Toronto." Telephone requests cannot be accepted. To prevent tampering, most institutional recipients insist that the transcript copy be sent directly to them.

Unofficial Copies
Students can obtain an unofficial copy of their academic history at no cost directly from the Student Web Service (ROSE): http://www.rose.utoronto.ca.

Examinations
Examinations are held at the end of each session. Students who make personal commitments during the examination period do so at their own risk. No special consideration will be given and no special arrangements made in the event of personal commitments. Information regarding dates and times of examinations will not be given by telephone. Students are responsible for reading the timetable carefully and appearing at the time specified. Students taking courses during the fall may be required to write examinations. Students taking evening courses may be required to write day examinations. Examinations may be held on any day of the week. Every effort will be made to avoid scheduling them on Sundays. However, UTSC reserves the right to do so if necessary.

Examination timetable conflicts
Students scheduled to write two examinations at the same time should report their conflicts to the Registrar's Office (Room AA142). Arrangements will normally be made for students to write both examinations on the same day, with a supervised break. Where the conflict involves a St. George Campus course, arrangements will normally be made for both examinations to be written at University of Toronto Scarborough. Requests for such arrangements must be made no later than two full weeks before the commencement of examinations and will not be considered after that time.

Students with three consecutive examinations
Students 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 Registrar's Office (Room AA142) 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 observances 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.

Identification cards
Students will be required to identify themselves at examinations by means of their University of Toronto photo identification card (student card). Students who do not have this card should arrange to obtain one well in advance of the day of their first examination.

Use of calculators in tests and examinations
UTSC has a policy on the use of calculators in tests and examinations. Students should consult with instructors about whether the use of calculators is permissible in their course and, if so, which models are approved. The use of an unauthorized calculator may be treated as an academic offense.

Examination room regulations
1. All students are advised to read the section of this Calendar titled Code of Behaviour on Academic Matters.
2. Students are advised to arrive at the examination room at least fifteen minutes before the scheduled examination time. Invigilators will begin the actual examination at the scheduled time.
3. No persons shall be allowed in an examination room during an examination except the students writing the examination and those supervising it.
4. Candidates shall bring their photo identification cards (TCard) and place them in a conspicuous place on their desks. (Students registered in other Faculties or Colleges of the University shall bring their student cards.)
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 externalizing circumstances, or
   • you cannot submit term work by your instructor’s deadlines
   speak with your instructor as soon as possible to request special consideration. This is granted at his or her discretion. If you wish to appeal your instructor’s decision, speak with or write to the Chair of the Department offering the course.

2. If it is close to the end of term or session and you need an extension of time to complete term work or to write a term test, your instructor jointly with the Departmental Chair may give you an extension for up to a week after the last date to submit term work.

3. If you need more than a week’s extension, you must submit a formal petition (see D below). If your petition is granted, you will be given a deadline by which to complete the work.

B. Final examinations

1. If illness or other externalizing 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 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 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 invigilation, course 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 re-check 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, instructors are required to re-read the final exam and re-check 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 case that the work be re-read by another faculty member. Claims of prejudice must be supported in detail and wherever possible confirmed by a third party. Whenever a grade is changed, the amended grade will stand whether it is higher or lower.

5. Violations of the Grading Practices Policy
   (a) If you think an instructor has violated the Grading Practices Policy, discuss your complaint with the instructor. If the violation relates to the announced schedule of assignments or the marking scheme, you must do this no later than the fourth week of classes. If it relates to changes in or divergence from the announced marking scheme, you must do this before the end of the final examination period.
   (b) If this discussion does not result in a satisfactory solution, you may appeal the instructor's decision to the Chair of the Department offering the course. If this appeal does not resolve the problem, you may appeal to the Vice-Principal (Academic) & Dean of UTSC.

(c) If you wish to withdraw from a course after the last day to withdraw without academic penalty on the grounds of a violation of the Grading Practices Policy, you must submit a formal petition (See D Below). If your petition is granted because a violation of the Policy has occurred, on record of your registration in the course will appear on your transcript. You cannot petition to withdraw from a course on the grounds that no work was returned to you before the last day to withdraw without academic penalty if this is the result of your having been given an extension to complete your work for reasons relating to you and not the rest of your class.

D. Petitions
   A petition is a formal request that an exception to an academic regulation be made in your case. You must have good reason to make such a request, and you must show that you have acted responsibly and with good judgment in observing the academic regulations to the extent possible. Please note that some academic matters cannot be petitioned, although sometimes these may be resolved with an instructor or a Department offering a course.

   Where a petition is justified, it must be filed by the appropriate deadline (See E Below). Even if a petition has been filed by the deadline, it will not be considered if documentation is not provided within 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 counselor in the Health and Wellness Centre. Do not let this recommendation interfere with your submitting your petition by the deadline.

   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/medcert.pdf

   Medical documentation for examinations missed because of illness must be obtained on the day of the examination whenever possible.

   (b) Statements from social workers, lawyers, clergy and other professionals must
      • state the nature and extent of the problem
      • give his or her professional opinion as to whether you should receive special consideration on the grounds documented in your petition.
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 or if otherwise identifying the nature of the alleged misvaluation. 
   • show that the alleged misvaluation is of a substantial nature; in an objective answer, that a correct response has been counted as incorrect, or in a subjective or essay answer, that the response has been under-evaluated substantially. 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) 
   • denial of suspension (suspension deferred) 
   • award of a grade of standing (A) 

In cases of error on the part of the University, including violations of the Graduating Practices Policy, withdrawal from courses is not recorded on the transcript.

E. Deadlines 

The deadlines below apply to the University of Toronto Scarborough. Deadlines and policies for courses taken on other campuses may differ: see the appropriate Faculty Calendar. 

1. Term Work 
   • requests for special consideration on term assignments and term tests within the jurisdiction of the instructor: last day of classes 
   • petitions to submit term assignments or write make-up term tests after the last day to submit term work (see the Calendar): last day of the examination period

2. Final Examinations 
   • 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)

1. 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 S414A, moving to the new Arts and Administration building in August 2005, (telephone 416-287-7534). 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 the 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)

University of Toronto Policies

Below are extracts that relate specifically to students of the following University of Toronto policies: 

1. Policy on Access to Student Academic Records 
2. University Graduating Practices Policy 
3. Code of Behaviour on Academic Matters 
4. Code of Student Conduct

For more information, please refer to the Office of the Governing Council website: http://www.utoronto.ca/govern

Policy on Access to Student Academic Records

1. Preamble 
   (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:
Policy on Access to Student Academic 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 from 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) "alumnus or alumn" 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, towards such a degree, diploma or certificate, and is no longer registered at the University.
   (c) "former student" means any person who is not a student, or an alumnus or alumn 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 record.

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.

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 as defined in Section 3 above, with the exception of those portions of the record which comprise letters of reference (Section 3(b)(ii)) 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.

(b) Access by alumna and former students
   (i) An alumna or alumn of 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 alumna or alumn 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 alumna or alumn 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
in the event that a student, alumnus or alumna 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 or 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 on their behalf.

5. Custody and retention of official student academic records
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) These 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.

(e) 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 procedures 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.

7. Notwithstanding other provisions of the Policy on Access to Student Academic Records, for the sole purpose of administering drug and health insurance plans organized by the Students' Administrative Council, the Association of Part-time Undergraduate Students and the Graduate Students' Union, a list of the names, addresses and student numbers of students in the relevant plan may be provided to the insurance company designated by the student organization. The terms and conditions under which the list will be provided shall be satisfactory to the Vice-Provost, Students and shall be reflected in formal agreements which ensure that the information is adequately safeguarded and used only for the purpose for which it is provided. A similar list may be provided directly to the student organization under terms and conditions satisfactory to the Vice-Provost, Students, provided the Vice-Provost is satisfied that this is required for the administration of the plan.
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

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

1.1 A grade assigned in a course is not an assessment of standing within a program of studies.
1.2 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

1.3 The need for a uniformity of standards and a comparison of student performance among divisions of the University has led to the adoption of a set of grade scales. These scales are:
(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 E represents the C, D, and F grades in (a) above and/or
(d) the scales Honours/Pass/Fail and Credit/No Credit.

Grades vs. Scores

1.4 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

1.5 Grades will be assigned according to the numerical scale of marks referred to in 1.3(b) above, and converted to the refined letter grade scale of 1.3(c) above. In graduate divisions, grades may be assigned according to the truncated refined letter grade scale of 1.3(c) above. The H/P/L and CR/NCR scales of 1.3(d) above may also be used. However, the grades assigned in a course must all be from the same scale.

1.6 All non-grade designates used in reporting course results must correspond to the University-wide standard. A list of the currently approved designates and their meanings is given in the Appendix A.2.

1.7 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:
   - an environment history, which traces chronologically the student's entire participation at the University,
   - a "grade point average" based on a 4-point scale for all undergraduate divisions
   - an average grade for each course expressed using the refined letter grade scale
   - both the numerical and letter grade equivalent, where possible, for all courses;
   - course weight values, expressed using a uniform system of values allowing for the relative values needed by each division;
   - transfer credits granted;
   - academic honors, scholarships and awards sanctioned by the University;
   - a comprehensive guide explaining all grades and symbols used on the transcript.

PART II: GRADING PROCEDURES

Divisional Councils shall forward to the Committee on Academic Policy and Programs changes to 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 only 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.

8.1 Divisional Review Committee

In each division, a committee chaired by the divisional head or a designate, 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:
   - supervise the implementation of the University’s Grading Practices Policy at the divisional level and oversee the general consistency of grading procedures with the division;
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 no more than one occasion. No one essay, test, examination, etc., should have a value of more than 80% of the grade. Criteria for exemption 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 exemption 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 piece of term work which is a part of the evaluation of a student performance and approved methods of evaluation shall be returned to the student prior to the last date for withdrawal from the course without academic penalty.

(g) Grades shall be recommended by the instructor in reference to the approved grade scales on the basis of each student’s overall performance. In formulating their own regulations divisional 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 (a) and (b).

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 honored; 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, 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 consensus should be informed to the department or division with a report on the attendance of 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 facilities, 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 facilities 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 classes are to be cancelled, approval of the divisional council is required. If the divisional council cannot meet, approval of the divisional 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 set out in each division. If the petition is approved, the student’s original grade will be replaced by either an assessed grade or by a grade of CR/NCR, or as deemed appropriate in the particular circumstances.

II.4 Assessment In Clinical and Field Settings

Divisions may make reasonable exemptions in the classroom procedures described above in circumstances such as field or clinical courses where adherence to these procedures is not possible. Nevertheless, it is obligatory that the assessment of the performance of students in clinical or field settings should be fair, humane, valid, reliable and in accordance with the principles enunciated in the University Grading Practices Policy. Accordingly, where a student’s performance in a clinical or field setting is to be assessed for credit, the evaluation must encompass as a minimum:

(a) A formal statement describing the evaluation process, including the criteria to be used in assessing the performance of students and the appeal mechanisms available. This statement should be available to all students before or at the beginning of the clinical or field experience;

(b) A mid-way performance evaluation with feedback to the student;

(c) Written documentation of the final assessment.

In addition, for such clinical and field experiences, divisions must also:

(d) Provide for clinical and field assessment which are fully informed regarding University, divisional and course policies concerning evaluation procedures, including the specific assessment procedures to be applied in any particular field or clinical setting. Any exception from the above would require a divisional request with explanation for approval by the Governing Council.
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 Policy the existence of any such limits.

(c) The criteria that the Divisional Review Committee shall employ in its review 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 or not the grades have been altered by the review process or not. These procedures shall be outlined in the divisional Policy, 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. Exemptions 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.

(c) All divisions should provide, in addition to the customary re-reading of papers and the re-checking of marks, the opportunity for students to petition for the re-reading of their examination where feasible. A cost recovery fee should be set and returned where appropriate.

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 underpin 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 centers 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 discriminatory 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 true inquiry, which is the University's life-blood. Its fulfillment depends upon the well-being of that relationship whose parties define one another's roles as teacher and student, based upon differences in expertise, knowledge and experience, though bonded by respect, by a common passion for truth and by mutual responsibility to those principles and ideals that continue to characterize the University.

This Code is concerned, then, with the responsibilities of faculty members and students, not as they belong to administrative or professional or social groups, but as they co-operate in all phases of the teaching and learning relationship.

Such co-operation is threatened when teacher or student forsakes respect for the other—and for others involved in learning—in favour of self-interest, when 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 malcontent or even mischievous disruption is not allowed to impair 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 or giving academic or financial advantages by fraudulent, dishonest or misrepresentational, or seeking to disadvantage others by disruptive behaviour is unacceptable, it 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 might reasonably 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, altered 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 or 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 in 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 "A");
(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 concealed.

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, 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 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 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 it was awarded.

B.II. Parties to Offences

(a) Every member in 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 made any of the acts described in (a) above.

B. Procedures in Cases Involving Students

C.1(a) Divisional Procedures

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 [UTSC] and Ermida College [UTM], the college is deemed to be the faculty.

C.1(b) Divisional Procedures

Where an instructor has reasonable grounds to believe that an academic offence has been committed by a student, the instructor shall inform the student in writing of the act or acts committed and require the student to appear before the instructor for an interview. The instructor shall inform the student that he or she may be subject to a sanction at the discretion of the instructor in the case of an academic offence.

C.1(c) Divisional Procedures

If after such discussion, the instructor believes that an academic offence has been committed by the student, or if the student fails to respond to the invitation for discussion, the instructor shall make a report of the matter to the department chair or through the department chair to the dean. (See also section C.1(d), C.1(e).)

C.1(d) Divisional Procedures

When the dean or the department chair, as the case may be, has been informed, the chair shall notify the student in writing accordingly, providing a copy of the report and communicating to the student an opportunity for discussion of the matter.

The chair shall conduct the interview.
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 for information on cases disposed of under section C.1 hereof.

Where a provost 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 provost or invigilator shall 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.

In the case of alleged offences not covered by the procedures above and not involving the submission of academic work, such as those concerning forgery or uttering, and 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:

1. the student admits guilt; and
2. 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:

- an oral or written reprimand;
- an oral or written reprimand and, with the permission of the instructor, the resubmission 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;
- assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;
- assignment of a grade of zero or a failure for the course in respect of which the offence was committed;
- denial of privileges to use any facility of the University, including library and computer facilities;
- a monetary fine to cover the costs of replacing damaged property or misused supplies in respect of which the offence was committed;
- assignment of a grade of zero or a failure for the course in respect of which the offence was committed;
- 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 accused shall not be compelled to testify at his or her hearing.

The divisions of the Tribunal are:
(a) Trial; and
(b) Appeal.

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.

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 Etobicoke College shall normally be held on the Etobicoke campus of the University.

The Tribunal shall:
(i) hear and dispose of charges brought under the Code;
(ii) report its decisions 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 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.

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 nomination 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.

challenging panel members

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.

chair’s role

(a) the chair of the hearing shall determine all questions of law and has a vote on the verdict and sanctions;

(b) the panel shall determine all questions of fact and render a verdict according to the evidence.

admission of guilt after charge laid

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 C.1.5(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.

verdict of panel

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.

sanction of panel

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.

disagreement on sanction(s)

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.

Discipline Counsel

There shall be a University Discipline Counsel and there may be one or more assistants to the Discipline Counsel, appointed by the Academic Board on the recommendation of the Provost.

The Discipline Counsel and any assistant shall be a barrister and solicitor qualified to practise law in Ontario and shall not be a full-time member of the teaching staff or a member of the administrative staff.

The Discipline Counsel or an assistant shall conduct all proceedings on behalf of the Provost before the Tribunal and on any appeal from a Tribunal decision.

The other duties of the Discipline Counsel and assistants shall be as determined by the Provost.

Secretary

The Secretary of the Tribunal and his or her assistants shall be appointed by the Academic Board on the recommendation of the Provost.

The duties of the Secretary and assistants shall be determined by the Senior Chair and members of the Tribunal and reported to the Academic Board for information. Where anything is required by the Code to be done by or with the Secretary, it may be done by or with the Secretary or any of his or her assistants.

C.3.6(b) Tribunal Sanctions

One or more of the following sanctions may be imposed by the Tribunal upon the conviction of any student:

(a) an oral and/or written reprimand;

(b) an oral and/or written reprimand and, with the permission of the instructor, the resubmission 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 missed supplies in respect of which the offence was committed;

(g) assignment of a grade of zero or a failure for any completed or uncompleted course or courses in respect of which any offence was committed;

(h) suspension from attendance in a course or courses, a program, an academic unit or division, or the University for such a period of time as may be determined by the Tribunal. 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;

(i) recommendation of expulsion from the University. The Tribunal has power only to recommend that such a penalty be imposed. In any such case, the recommendation shall be made by the Tribunal to the President for a recommendation by him or her to the Governing Council. Expulsion shall mean that the student shall be denied any further registration at the University in any program, and his or her academic record and transcript shall record this sanction permanently. 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. If a recommendation for expulsion is not adopted, the Governing Council shall have the power to impose such lesser penalty as it sees fit.

(j) (i) recommendation to the Governing Council for cancellation, recall or suspension of one or more degrees, diplomas or certificates obtained by any graduate; or

(ii) cancellation of academic standing or academic credits obtained by any former student who, while enrolled, committed any offence which if detected before the granting of the degree, diploma, certificate, standing or credits would, in the judgment of the Tribunal, have resulted in a conviction and the application of a sanction sufficiently severe that the degree, diploma, certificate, standing, credits or marks would not have been granted.
D. Procedures in Cases Involving Faculty Members

Please refer to the policy in its entirety on the Office of the Governing Council website at: http://www.utoronto.ca/govcen

E. Appeals

Appeals from decisions at trial shall be heard by a panel drawn from the Discipline Appeals Board consisting of the Senior Chair of the Tribunal, or an Associate Chair designated by him or her, and three members of the Discipline Appeals Board drawn preferably from the Academic Board nominees to the Board. The Academic Board’s nominees shall be chosen from among its current or former members. At least one member of each panel shall be a faculty member who is not also a student and at least one shall be a student who is not also a faculty member.

The Senior Chair or an Associate Chair shall preside at all appeal hearings.

Where the Discipline Appeals Board hears an appeal

(a) no Tribunal member who participated in the decision appealed from shall participate in the appeal; and

(b) the decision of the majority of the members hearing the appeal shall govern, and the presiding Chair shall be a voting member.

Cases for appeal

An appeal to the Discipline Appeals Board may be taken in the following cases, only:

(a) by the accused, from a conviction at trial, upon a question which is not one of fact alone;

(b) by the Provost, from an acquittal at trial, upon a question which is not one of fact alone;

(c) by the accused or the Provost, from a sanction imposed at trial.

Filing of appeal

An appeal shall be made by filing with the Secretary, within 21 days after the giving of notice of the decision of the Tribunal, a notice of appeal stating briefly the relief sought and the grounds upon which the appeal is taken; provided that in exceptional circumstances, the Senior Chair shall have the power to enlarge the time for appeal upon application made either before or after the expiry of that time.

The hearing panel shall have the power to order that any sanction imposed by the Tribunal be recorded on the student’s academic record and transcript for such length of time as the panel considers appropriate.

Publishing decision and sanction

The Tribunal may, if it considers it appropriate, report any case to the Provost who may publish a notice of the decision of the Tribunal and the sanction or sanctions imposed in the University newspapers, with the name of the student withheld.

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 offences 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 or 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, so 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 neighbours, or the freedom of members of the University to participate reasonably in the programs of the University and in activities in or on the University’s premises. Self-regulation of such activities by the University of Toronto is otherwise neither necessary nor appropriate.

5. University members are not, as such, immune from the criminal and civil laws of the wider political units to which they belong. Provisions for non-academic discipline
should not attempt to shelter students from their civic responsibilities nor add,
unecessarily to those 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 assembly and demonstrations,
lawful picketing, or to inhibit freedom of speech as defined in the University.

8. In this Code, the word "premises" 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
(ii) associated with or registered as a participant in any course or program of
study offered by or through a college, faculty, school, centre, institute or
other academic unit or division of the University; and/or
(iii) entitled to a valid student card who is between sessions but is entitled
because of student status to use University facilities; and/or
(iv) who is a post-decennial fellow.

10. In this Code, the words "University of Toronto" refer to the University of Toronto
and include any institutions federated or affiliated with it, where such inclusion has been
agreed upon by the University and the federated or affiliated institution, with respect
to the premises, facilities, equipment, services, activities, students and other members
of the federated or affiliated institution.

Note: The University of Toronto has agreed that, when the premises, facilities,
equipment, services or activities of the University of Toronto are referred to in
this Code, the premises, facilities, equipment, services and activities of the University
of St. Michael's College, Trinity College and Victoria University are included.

11. In this Code, where 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.

12. This Code is concerned with conduct that the University considers unacceptable.
In the case of student members of the University, the procedures and sanctions described
herein shall apply, unless the matter has been or is to be dealt with under other
provisions for the discipline of students. In the case of the other members of the
University, such conduct is to be dealt with in accordance with the established policy,
procedures and agreements that apply to them.

13. Subject to the conditions and considerations outlined in Section B, this Code is
concerned with conduct arising in relation to a wide variety of activities and
behaviours including, but not limited to, conduct related to the use of computers
and other information technology and the use or misuse of alcohol. In principle, alleged
offences that arise in relation to such conduct are not distinct from those that arise out
of other activities that occur in the University community. Such activities may also be
considered the commission of one or more offences and, in appropriate
circumstances, may be dealt with under other University policies or regulations
specific to the behaviour.
(i) The conduct mentioned in subsection (i) consists of
(a) repeatedly following from place to place the other person or someone known to them;
(b) repeatedly and persistently communicating with, either directly or indirectly, the other person or anyone known to them;
(c) breaching or repeatedly watching the dwelling-house, or place where the other person, or anyone known to them, resides, works, carries on business or happens to be; or
(d) engaging in threatening conduct directed at the other person or any member of the family, friends or colleagues of the other person.

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.
For example, peaceful picketing or other activity outside a class or meeting that does not substantially interfere with the communication inside, or impede access to the meeting, is an acceptable expression of dissent. And silent or symbolic protest is not to be considered disruption under this Code. But noise that obstructs the conduct of a meeting or flexible blocking of access to an activity constitutes disruption.

3. Offences Involving Property
(a) No person shall knowingly take, destroy or damage premises of the University of Toronto.
(b) No person shall knowingly take, destroy or damage any physical property that is not her or his own.
(c) No person shall knowingly destroy or damage information or intellectual property belonging to the University of Toronto or to any of its members.
(d) No person, in any manner whatsoever, shall knowingly deface the inside or outside of any building of the University of Toronto.
(e) No person, knowing the effects or property to have been appropriated without authorization, shall possess effects or property of the University of Toronto.
(f) No person, knowing the effects or property to have been appropriated without authorization, shall possess any property that is not her or his own.
(g) No person shall knowingly create a condition that unnecessarily endangers or threatens destruction of the property of the University of Toronto or of any of its members.

4. Unauthorized Entry or Presence
No person shall, contrary to the expressed instruction of a person or persons authorized to give such instruction, or with intent to damage or destroy the premises of the University of Toronto or destroy or steal any property on the premises of the University of Toronto that is not her or his own, or without just cause knowingly enter or remain in or on any such premises.

5. Unauthorized Use of University Facilities, Equipment or Services
(a) No person shall knowingly use any facility, equipment or service of the University of Toronto contrary to the expressed instruction of a person or persons authorized to give such instruction, or without just cause.
(b) No person shall knowingly gain access to or use any University computing or internal or external networking facility or any other legitimate authorization has not been granted. No person shall use any such facility for any commercial, disruptive or unauthorized purpose.
(c) No person shall knowingly mutilate, misplace, misfile, or render inoperable any stored information such as books, film, data files or programs from a library, computer or other information storage, processing or retrieval system.

6. False charges
No person shall knowingly or maliciously bring a false charge against any member of the University of Toronto under this Code.

7. Aiding in the Commission of an Offence
No person shall counsel, procure, conspire with or aid a person in the commission of an offence defined in this Code.

8. Refusal to Comply with Sanctions
No person found to have committed an offence under this Code shall refuse to comply with a sanction or sanctions imposed under the procedures of this Code.

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 officers 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 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 behavior 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 each faculty, college or school in which students are registered (hereinafter called "division"), after consultation with the elected student leaders 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.
division, suspend a student or students temporarily for up to three working days if, in the opinion of the Vice-President & Provost (or delegate), there is reasonable apprehension that the safety of others is endangered, damage to University property is likely to occur, or the continued presence of the student(s) would be disruptive to the legitimate operations of the University. The student(s) shall be informed immediately in writing of the reasons for the suspension and shall be afforded the opportunity to respond. Any such temporary suspension must be reviewed by the Vice-President & Provost (or delegate) within the three-day temporary suspension period, following a preliminary investigation, and either revoked or continued. If the suspension is continued, the student(s) may appeal to the Senior Chair (or delegate), or the Associate Chair (or delegate) of the University Tribunal, who shall hear and decide on the appeal within five days.

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 of any of its divisions or the ability of other students to continue their programs of study. Where the sanction of suspension and/or expulsion has been imposed on a student, the Vice-President & Provost (or delegate) shall have the power to record that sanction on the student's academic record and transcript for such length of time as he or she considers appropriate.

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, [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 divisions 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, a 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 contain:

(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 hearing on the decision to proceed in a future case. Where a sanction has been imposed, a copy of the letter of sanction to the student shall be filed, in confidence, with the Judicial Affairs Officer, Office of the Governing Council.

5. Publishing of Records
Decisions of the Hearing Officer, including the name of the respondent, the offence and the sanction, shall be reported to the Vice-President & Provost, who shall convey the information, anonymously and in statistical form, annually to the University Affairs Board. A Hearing Officer or the Discipline Appeals Board may recommend to the Vice-President & Provost that the nature of the offence and the sanction be published in the University newspapers. Where circumstances warrant, they may also order the publication of the name of the person found to have committed the offence. The Vice-President & Provost shall have the discretion to withhold publication of the name of the person.

6. Use of Records
Records of previous convictions may be taken into account in imposing a sanction.

7. Tape Recordings of Hearings
The Hearing Officer shall ensure that a tape recording is made of all sessions of a Hearing. Such tape recordings shall be kept by the head of the division for at least 90 days after notice has been given of the decision of the hearing.

Memorandum of Procedures for Hearings Arising from the Code of Student Conduct

1. Complainant must be notified 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 allegations 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 procedures. Procedural defects will not invalidate the proceedings unless there has been a substantial wrong or denial of natural justice.

8. The parties to the hearing are the head of the division, represented by the Investigating Officer, who may be assisted and represented by legal counsel, and the accused, who may be assisted and represented by another person, who may be a lawyer. Both parties shall be allowed to call, examine and cross-examine witnesses and present evidence and argument.

9. Hearings shall be open to members of the University unless the Hearing Officer decides there is sufficient cause to provide otherwise.

10. The Hearing Officer is not bound to conduct the hearing according to strict rules of evidence. Evidence may be received in written or oral form.

11. The Hearing Officer may take note of matters generally within the knowledge of members of the University community.

12. The accused may waive the right to a hearing under these procedures, in which case the Hearing Officer will rule on whether the accused has committed the offence alleged and impose one or more of the sanctions listed in the Code of Student Conduct.

13. After a hearing, the Hearing Officer shall rule on the complaint and, where the Hearing Officer finds that the accused has committed an offence, shall impose one or more of the sanctions listed in the Code of Student Conduct and give reasons for the decision. A copy of the letter to the student imposing the sanction shall be copied, in confidence, to the Judicial Affairs Officer, Office of the Governing Council.

14. The means of proof is on the head of the division, who must show on clear and convincing evidence that the accused has committed the offence alleged.

15. Any penalty or remedy shall be stayed pending the outcome of any appeal to the Discipline Appeals Board.
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From the 401 take the Morningside 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.
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Leading Research, Outstanding Faculty, Vibrant Student Life