University of Toronto
at Scarborough

Calendar

1998/99

1265 Military Trail, Scarborough, Ontario, Canada, M1C 1A4
GREETINGS FROM THE PRINCIPAL AND DEAN

It is great pleasure that I welcome new and returning students to the 1998-9 academic term, an exciting time in which to be a student at the University of Toronto at Scarborough.

We continue to be on the leading edge of instructional technology within the University of Toronto. Scarborough was one of the first parts of the University to develop a Web site and has been in the forefront of using the Web, and more widely the Internet, for teaching and learning. The Centre for Instructional Technology Development continues to pioneer the creative and use of CD ROM technology in instruction. Almost all students have a computer account which provides access to electronic mail, the Internet, digital library resources throughout the university, and portions of the particular student's academic record. We currently have three of our large lecture theatres equipped as "smart classrooms" and two portable "smart studios" that can move from room to room. "Smart classrooms" are equipped with state-of-the-art computer facilities such as Internet connectivity, CD ROM presentation ability, computer output (screen) projection and digital document cameras which project the image of any object onto the overhead screen (objects as diverse as written documents, computer components and ancient artifacts).

University of Toronto at Scarborough has benefited from its divisional (instead of departmental) structure and from the fact that it is a medium-sized institution. Both of these features have facilitated the development of significant interdisciplinary programmes such as Biological Sciences (an integration of Zoology, Botany, Microbiology and Biochemistry), Neuroscience (Psychology and Biology) and Environmental Sciences (Geology, Physical Geography, Biology, and Atmospheric Physics/Climate). In addition, Mathematics, Statistics, Physics and Astronomy have cooperated to create an exciting new programme in Physical and Mathematical Sciences; Drama, Music, Fine Art History and Fine Art Studio have created integrated programmes in Visual and Performing Arts. Currently, we are working on the development of an Environmental Chemistry focus that will complement the existing programme in Environmental Sciences.

A student at the University of Toronto at Scarborough, you are members of a major research university. Scarborough professors are active researchers and scholars. This ensures that the knowledge and skills that we impart to you reflect the latest developments in the wide variety of subjects in which we offer courses. The challenge in a university is to effectively link research and scholarship to teaching. Scarborough faculty have realized considerable success in forging this link and have in recent years been the recipients of prestigious awards recognizing this achievement.

These are a few of the reasons why I am convinced that this is an exciting time to be a student at the University of Toronto at Scarborough. I offer you my very best wishes for a rewarding year of study in this challenging and academically rich environment.

Professor Paul Thompson
Principal and Dean
University of Toronto
at Scarborough

University of Toronto at Scarborough: Past and Present

University of Toronto at Scarborough, a constituent college of the University of Toronto, was established in 1964. Since that time it has grown from a modest beginning of ten evening courses in a local high school to a thriving campus where over 200 faculty teach more than 700 courses to 5200 students.

The first full-time Scarborough students enrolled in 1965. Classes began on the St. George campus that fall and moved to Scarborough campus when the first building, made up of the Science and Humanities wings, opened in January 1966. The building, designed by Toronto architect John Andrews, won immediate international attention for its striking architecture.

1975 saw the opening of the R-wing (with classrooms, office space, a gymnasium, and other sports facilities) and the Student Village, a complex of townhouse residences with room for 260 students. In 1983 the original Student Village was expanded and in 1990 the West Village opened, creating a second residential area on the campus with some wheelchair-accessible houses. A total of 536 students can now be accommodated in residence.

In 1982, the Vincent W. Bladen Library, named in memory of a former member of the Economics faculty of University of Toronto at Scarborough, was added to the R-wing. The library has more than 200,000 books and periodicals, thousands of maps, and a media centre with recordings and fine art slides. Bladen Library, in conjunction with the College's Computer Centre, has also become one of the leaders at the University of Toronto in the use of electronic resources. The Soil Erosion Research Laboratory opened in 1989, the N'Sheenamsts Child Care Centre in 1990, and the Leigha Lee Browne Studio Theatre in 1993.

Originally an integrated part of the University's Faculty of Arts and Science, in 1972 University of Toronto at Scarborough became a separate arts and science division of the University of Toronto and assumed more independence in curriculum development. It was the first college in the University to adopt a credit system allowing both full-time and part-time students to complete their degrees at a rate of their own choosing. The College offers the only formal co-operative programmes in the University. Currently, Co-operative Programmes are offered in the following areas: Arts Management, Computer Science, Environmental Sciences; International Development Studies; Management and Management & Economics. In addition, both the Physical Sciences Specialist programmes and the Education of Teachers in French Specialist Programme offer an Early Teacher Project component, in cooperation with the Ontario Institute for Studies in Education/University of Toronto. Successful completion of the Early Teacher Project together with the required academic standing will guarantee admission, on application to the Ontario Institute for Studies in Education/University of Toronto, for at least thirty students a year.

Scarborough faculty also make an important contribution to the School of Graduate Studies, teaching graduate courses and training graduate students both here and on the St. George campus. Many faculty have received worldwide recognition for the excellence of their research and scholarship. The well-appointed research laboratories, the high level of technical services, the relatively small student to staff ratio of the college and the diversity of the faculty foster an ideal environment for intellectual exchange and development.

Scarborough students have full and up-to-date resources available on campus; as full members of the University of Toronto, they also have access to the resources of the University as a whole. On the Scarborough Campus, regular events include concerts, drama productions, and a literary reading series. The Student and the prestigious Watts lecture have brought such distinguished speakers as Nobel Peace Prize winner and former Prime Minister Lester Pearson, architect Raymond Moriyama, philosopher and theologian Hans Kung, scientist and television personality Bob White, Assembly of First Nations chief George Erasmus, and Israel's Ambassador to Canada Itzhak Shlifke, co-lecturing with Abdullah Ahmad, P.L.O. Ambassador to Greece.
In applying to the Faculty (School, College) the student assumes certain responsibilities to the University and the Faculty (School, College) and, if admitted and registered, shall be subject to the rules, regulations, and policies cited in the Calendar.

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

5 Copyright in Course Lectures
If a student wishes to tape-record, photograph, video-record or otherwise reproduce lecture presentations, course notes or 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 physically disabled students, the instructor’s consent will not be unreasonably withheld.

6 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 Records, strictly controls access to student numbers. The University assumes and expects that students will protect the confidentiality of their student numbers.

7 The University reserves the right to alter the fees and other charges described in the Calendar.

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

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

10 ACADEMIC OFFENCES ARE A SERIOUS MATTER. See page 247.

11 University of Toronto at Scarborough has a fire safety plan. Copies are available from Physical Plant Services R4704.

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

13 University of Toronto at Scarborough "Snowline" (416) 287-7026.
Academic Calendar/Summer Session 1998**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 15</td>
<td>Last day for new students to apply for admission to the University for the Summer Session for courses beginning in May (&quot;Y&quot;, &quot;A&quot;, &quot;P&quot;, &amp; &quot;H&quot; courses).</td>
</tr>
<tr>
<td>April 8</td>
<td>Summer Session registration begins for Scarborough courses only.</td>
</tr>
<tr>
<td>April 10</td>
<td>Good Friday. University closed.</td>
</tr>
<tr>
<td>April 13</td>
<td>Summer Session registration through the Student Telephone Service begins for Faculty of Arts &amp; Science and Scarborough courses.</td>
</tr>
<tr>
<td>May 8</td>
<td>Deadline to register in &quot;A&quot;, &quot;F&quot;, &quot;H&quot;, &amp; &quot;Y&quot; courses. After this date, a late fee is imposed.</td>
</tr>
<tr>
<td>May 15</td>
<td>Last day for new students to apply for admission to the University for the Summer Session for courses beginning in July (&quot;B&quot; &amp; &quot;S&quot; courses).</td>
</tr>
<tr>
<td>May 18</td>
<td>Victoria Day. University closed.</td>
</tr>
<tr>
<td>June 5</td>
<td>Last day to drop &quot;A&quot; or &quot;F&quot; courses from academic record and GPA.**</td>
</tr>
<tr>
<td>June 26</td>
<td>Last day to drop &quot;B&quot; or &quot;S&quot; courses from academic record and GPA.**</td>
</tr>
<tr>
<td>June 29</td>
<td>Classes for &quot;B&quot; &amp; &quot;S&quot; courses begin.</td>
</tr>
<tr>
<td>July 1</td>
<td>Canada Day. University closed.</td>
</tr>
<tr>
<td>July 6</td>
<td>Last day to add &quot;B&quot; or &quot;S&quot; courses.</td>
</tr>
<tr>
<td>July 17</td>
<td>Last day to drop &quot;Y&quot; or &quot;H&quot; courses from academic record and GPA.**</td>
</tr>
<tr>
<td>July 17</td>
<td>Last day to request conferring of degree at the Fall Convocation.</td>
</tr>
<tr>
<td>July 24</td>
<td>Last day to drop &quot;B&quot; or &quot;S&quot; courses from academic record and GPA.**</td>
</tr>
<tr>
<td>August 3</td>
<td>Civic holiday. University closed.</td>
</tr>
<tr>
<td>August 10-14</td>
<td>Deferred examinations from April/May 1998.*</td>
</tr>
<tr>
<td>August 14</td>
<td>Last day of classes in &quot;B&quot;, &quot;H&quot;, &quot;S&quot;, &amp; &quot;Y&quot; courses. Last day for submission of term assignments. Final examinations, if required, will be held in a class period of the last week.</td>
</tr>
<tr>
<td>November 24</td>
<td>Fall Convocation.</td>
</tr>
<tr>
<td>December 14-22</td>
<td>Deferred examinations from June and August, 1998.*</td>
</tr>
</tbody>
</table>

* For dates on other campuses, see the appropriate Calendar.
** After this date a grade is recorded whether course work is completed or not and calculated into the GPA.

---

Academic Calendar/Winter Session 1998/99*

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td></td>
</tr>
<tr>
<td>April 1</td>
<td>Last day for new students to apply for admission to the University for full-time studies beginning in September. Overseas students must apply by March 1.</td>
</tr>
<tr>
<td>June 1</td>
<td>Last day for new students to apply for admission to the University for part-time studies beginning in September.</td>
</tr>
<tr>
<td>June 2 - August 14</td>
<td>Winter session registration (Access requests).</td>
</tr>
<tr>
<td>August 28</td>
<td>Winter session course changes using the Student Telephone Service (STS) begins.</td>
</tr>
<tr>
<td>September 4</td>
<td>University closed.</td>
</tr>
<tr>
<td>September 7</td>
<td>Labour Day. University closed.</td>
</tr>
<tr>
<td>September 14</td>
<td>Classes for &quot;Y&quot;, &quot;A&quot;, &quot;F&quot;, &amp; &quot;H&quot; courses begin.</td>
</tr>
<tr>
<td>September 21</td>
<td>Late registration fees imposed as of this date.</td>
</tr>
<tr>
<td>September 25</td>
<td>Last day to add &quot;Y&quot;, &quot;A&quot;, &quot;F&quot;, or &quot;H&quot; courses.</td>
</tr>
<tr>
<td>October 2</td>
<td>Last day to request conferring of degree at the June Convocation.</td>
</tr>
<tr>
<td>October 12</td>
<td>Thanksgiving Day. University closed.</td>
</tr>
<tr>
<td>November 2</td>
<td>Bursary applications should be submitted by this date.</td>
</tr>
<tr>
<td>November 6</td>
<td>Last day to drop &quot;P&quot; or &quot;A&quot; courses from academic record and GPA.**</td>
</tr>
<tr>
<td>November 13</td>
<td>Christmas Examination Schedule published.</td>
</tr>
<tr>
<td>December 9</td>
<td>Final day of classes in the first term. Last day for submission of term assignments in &quot;P&quot; &amp; &quot;A&quot; courses.</td>
</tr>
<tr>
<td>December 14-22</td>
<td>Term test and final examination period. Deferred examinations from June and August, 1998.*</td>
</tr>
<tr>
<td>December 23- January 3</td>
<td>Christmas break. University closed (tentative, subject to confirmation).</td>
</tr>
</tbody>
</table>

1999

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 4</td>
<td>Classes for &quot;B&quot; &amp; &quot;S&quot; courses begin.</td>
</tr>
<tr>
<td>January 15</td>
<td>Last day to add &quot;B&quot; or &quot;S&quot; courses.</td>
</tr>
<tr>
<td>February 12</td>
<td>Last day to drop &quot;Y&quot; or &quot;H&quot; courses from academic record and GPA.**</td>
</tr>
<tr>
<td>February 15-19</td>
<td>Reading Week - no classes held.</td>
</tr>
<tr>
<td>March 5</td>
<td>Last day to drop &quot;B&quot; or &quot;S&quot; courses from academic record and GPA.**</td>
</tr>
<tr>
<td>March 15</td>
<td>Annual Examination Schedule published.</td>
</tr>
<tr>
<td>April 2</td>
<td>Good Friday. University closed.</td>
</tr>
<tr>
<td>April 9</td>
<td>Last day of classes, no tests or examinations (other than deferred examinations) may be held until the beginning of the examination period. Last day for submission of term assignments for &quot;Y&quot;, &quot;H&quot;, &quot;B&quot;, &amp; &quot;E&quot; courses.</td>
</tr>
<tr>
<td>April 12-16</td>
<td>Deferred examinations from December 1998.*</td>
</tr>
<tr>
<td>April 19- May 7</td>
<td>Final examination period.</td>
</tr>
<tr>
<td>June 9</td>
<td>University Spring Convocations are likely to begin.</td>
</tr>
<tr>
<td>August 16-20</td>
<td>Deferred examinations from April/May 1999.*</td>
</tr>
</tbody>
</table>

* For dates on other campuses, see the appropriate Calendar.
** After this date a grade is recorded whether course work is completed or not and calculated into the GPA.
Officers of the University of Toronto at Scarborough
1998/99

Principal and Dean
R.P. Thompson, B.A., M.A., Ph.D.

Vice-Principal and Vice-Dean
R.E. Dengier, B.Sc., Ph.D.

Associate Dean
I.R. McDowell, B.A., Ph.D.

Associate Associate-Principal, Students
T. Nowers, B.Sc., M.Ed.

Chair, Division of Humanities
L.J. Aitken, B.A., M.A., M.Phil., Ph.D.

Chair, Division of Life Sciences
C.M. MacLeod, B.A., Ph.D.

Acting Chair, Division of Management and Economics
M. Krahlensky, B.S., M.Phil., Ph.D.

Chair, Division of Physical Sciences
J. Thompson, B.A., Ph.D.

Chair, Division of Social Sciences
E. Ralph, M.A., M.Phil., Ph.D.

Registrar

Librarian
M. Miller, B.A. (Hon.), M.L.S.

Director of Administration
P.S. Phillips, B.A., C.A.

Officers of the University of Toronto 1998/99

Chancellor
The Honourable H.N.R. Jackman, C.M., K.S.J., B.A., LL.B., L.L.D.

Chair, Governing Council
F. Anthony Cooper, B.A., D.Hum.L.

President and Chief Executive Officer
I.R. Prichard, O.C., M.B.A., LL.B., LL.M., Ph.D. (Hons.), LL.D.

Vice-President and Provost
A. Sedra, B.Sc., M.A.Sc., Ph.D.

Vice-President, Administration and Human Resources
M.G. Filatyn, B.A., M.A., Ph.D.

Vice-President and Chief Development Officer
J. Dellandrea, B.A., M.Ed., Ed.D.

Vice-President, Research and International Relations
H. Munro-Bram, B.A., B.S.W., M.S.W., Ph.D.

Deputy Provost
C. Teoey, B.A., M.A., Ph.D.

Vice-Provost, Relations with Health Care Institutions
A. Aberman, M.D., F.R.C.P. (C)

Vice-Provost
P. Gooch, B.A., M.A., Ph.D.

Vice-Provost, Planning & Budget
D. McCammond, B.Sc., Ph.D.

Vice-Provost, Students
I. Orchard, B.Sc., Ph.D., D.Sc.

Assistant Vice-President, Research Services
P. Marsche, B.A., M.A., Ph.D.

Assistant Vice-President, Student Affairs

Assistant Vice-President Operations and Services
J. Oliver, B.Com., M.Sc.

Chief Financial Officer
R.G. White, C.M.A.

Secretary of the Governing Council
J.G. Dimond, B.A., M.A., Ph.D.

Vincent W. Bladen Library

Librarian

L. Lee, B.A., M.L.S.
M. Miller, B.A., M.L.S.

Academic Advising
Academic Advising assists you in making thoughtful decisions about adding or dropping courses, program selection and course load. Advisers can help you understand degree requirements and academic regulations and are a good sounding board for any of your academic concerns. Advisers are generalists who are often the best people to talk to when you are uncertain about where to go for help. Room 5200, (416) 287-7001

Learning Skills
Learning skills offers seminars, workshops and individual peer counselling to help you attain academic excellence. Reference books and hand-outs are available. Room 5204, (416) 287-7001

The Career Centre
The Career Centre presents workshops and seminars on career planning and looking for employment. Listings for part-time, summer, volunteer and post-graduation positions are available. A library of career areas, employment and educational information is available. Room 5300, (416) 287-7001

Financial Aid
Financial Aid presents seminars and guest speakers to inform you about financial aid programs, OSAP, bursaries, graduate school funding and to help you make sound financial decisions. The office distributes OSAP applications and loan documents, bursary and emergency loan applications. Room 5300, (416) 287-7001

Registrar Services
Registrar Services is the place to visit for help with registration, to order transcripts, request letters of intent which confirm your status at the university, order copies of your examinations and answer many of your general questions about academic regulations and degree requirements. Room 5300, (416) 287-7001

Health & Wellness Centre

Hours: Monday - Friday
9:00 a.m. - 5:00 p.m.
Mon. & Wed. until 7:00 pm

Health & Wellness Centre: 25-304

Visit our:
- 24 hr. telephone information line at (416) 287-7001
- our website at www.ucat.utoronto.ca/depts/registrar

Location: 25-304

Health Services:
- Health Services provides comprehensive, confidential health care services to all students. Students are eligible for services at no cost. The Health Services Centre is open from 9:00 a.m. to 5:00 p.m. Monday to Friday.

Services Offered:
- Primary care for routine health problems
- Referrals to specialists
- Immunizations
- STI screening
- Pregnancy testing
- Refills for medications
- CPR training
- Transcripts of health records

Appointments are accepted and walk-ins are accommodated.

N'sheenaamhin: Child Care Centre

Hours: Monday - Friday
9:30 a.m. - 6:00 p.m.

N'sheenaamhin: Child Care Centre provides a quality, family-oriented program for children aged 6 weeks to 5 years. Our centre is designed to meet the needs of parents, caregivers and children. We offer a variety of programs and services, including

- Daycare
- Preschool
- After-school programs
- Summer camp

Located on the campus grounds, N'sheenaamhin is a non-profit centre which has garnered praise for its high standard of excellence in programming, staff and its attentive design layout.
The centre is licensed for 54 children of students, staff, faculty and neighbourhood families. The centre also has a place-of-service agreement with the municipal government to assist households in low-income circumstances with fees. As there is a very long wait for these subsidies, it is strongly advised to apply well in advance of the time child care is needed.

Housed in a state of the art building which officially opened October 10, 1990, this non-profit centre is managed by a parent/teacher board of directors. The Centre’s philosophy is that a warm, secure and loving environment be provided at all times to foster the development of each child’s self-esteem, independence and self-control, while encouraging cooperation, consideration and empathy for others.

The sound of the chukchikha “Naamnaamthaa”, also means “My little brother or sister” in the Ojibwe language. This folk tale reminds us all to take good care of our little ones.

Helping to develop people we wish we always were...Naamnaamthaa.

For more information about the centre, or to arrange for a visit, please contact the Director, Ms. Kathleen McEwan at (416) 287-7524.

Student Residences

The Student Villages are located in attractive trend areas, close to the College buildings. There are 114 two-bedroom in two villages, accommodating 220 people; 198 in one-bedroom and 11 in studio. There are ten bedroom in houses which are wheelchair accessible.

The houses are self-contained with study-bedrooms, bathrooms, kitchen and living/dining room. They are furnished with all equipped kitchens. Different rates apply for sharing in a twin-bed room, having a single or premium bedroom. Houses are assigned to either all males or all female for new students.

Washers and dryers are provided in four laundry rooms. There is a telephone jack in each bedroom and Cable TV outlet in the living room.

The Village Centre is your common room for social activities. It is open for you to drop in, watch TV, play the piano, table-tennis, darts, billiards, board games, chat or simply relax, sit by the fireplace and chat with friends. Cultural, educational and social events are held here and the Villages’ administrative offices are in this building.

The Don, senior students, are front-line counsellors who look after the well-being of residents on a 24 hour basis by ensuring the quality of life in residence and providing opportunities for residents to develop personally, intellectually and socially.

Our mission is to provide “recent housing at reasonable cost” while assisting students to develop personally and socially in the townhouse environment.”

Generally, we can accommodate all new students, including local and part-time. Accommodation is available winter and summer. We encourage you to come and visit us during the summer to tour the Villages and see a townhouse.

Please telephone for general inquiries: (416) 287-7525.

Sexual Harassment Education, Counselling and Complaint Office

The University of Toronto does not tolerate any form of sexual harassment and is actively endeavouring to provide an environment free of it. All forms of sexual harassment, from verbal abuse to inappropriate touching to sexual assault, are covered by the University’s policy. The Sexual Harassment Education, Counselling and Complaint Office was established to educate the University community on this issue. The Sexual Harassment Officer also provides counselling to those people who are the object of unwanted sexual attention and to those who are alleged to have sexually harassed someone, as well as implementing the formal complaint procedure. Contacting the Sexual Harassment Officer is not a commitment to file a complaint and at any point a complaint can be dropped.

The offices of the Sexual Harassment Office are available to all members of the University. All complaints and requests for information will be kept completely confidential unless the individual involved approve otherwise. Members of the University of Toronto at Scarborough may arrange an appointment at Scarborough Campus with the Sexual Harassment Officer or may go to the downtown office, whichever is more convenient. For an appointment, information, to arrange educational or to file a complaint, contact the Sexual Harassment Education, Counselling and, Complaint Office, University of Toronto, 455 Spadina Avenue (at College), Room 300.

Toronto, Ontario, M5S 2G7 (telephone (416) 978-3908).

AccessAbility Services

ACCOMMODATION OF STUDENTS WITH DISABILITIES

University Commitment

The University will make every attempt to provide reasonable and appropriate accommodations to persons who have disabilities. Staff carries a responsibility for creating and maintaining an inclusive environment in their teaching and work setting and responding appropriately to requests for accommodation of a disability.

Responsibility of Students Who Have Disabilities

Students who have disabilities and who wish to be accommodated in their academic programmes and related activities at the University have the responsibility to disclose their disabilities and present requests for accommodations in a timely manner which will facilitate the implementation of supports and services. Students are encouraged to discuss their needs as early as possible in the first instance with the Co-ordinator of AccessAbility Services. Students must present appropriate and up-to-date documentation of their disability when it is requested.

Responsibility of AccessAbility Services

Staff in AccessAbility Services are available to provide services directly to students who have disabilities and are committed to support and advise other staff of the University in providing appropriate accommodation. AccessAbility Services will encourage students to communicate with their department and discuss their problems with them. AccessAbility Services will act as a resource centre for the University on disability issues, will assess documentation, recommend appropriate accommodations, and provide ongoing consultation and support.

Services Available at Scarborough

- alternative testing
- note-takers
- provision of assistive devices and adaptive equipment and assessment of these needs
- adaptive materials (large print/taped exams)
- alternative communication (i.e. sign language interpreters)
- accessible test and course locations
- personal and career counselling relating to the individual's disability

- access to a registered psychologist for psycho-educational assessments.

The Co-ordinator is available at (Voice/TTY): (416) 287-7553; Voice: (416) 287-7580; drop by 3R02A/B, email: ability@scar.toronto.utoronto.ca. We also have a page on the World Wide Web: (www.scar.toronto.utoronto.ca/depts/ability).

International Student Centre

At the International Student Centre (ISC) all students can take part in social and cultural programs with an international focus, or just take a break from the pressures of studies. "Interchange", ISC's work or study abroad resources centre, provides information and counselling on overseas programs. ISC also offers special services to international students: pre-arrival information (sent with the admission offer), reception service and orientation events. English language programs, Newsletter and advice on academic concerns. Contact: (416) 287-7525.

University Ombudsperson

The Ombudsperson assists in any way possible to resolve grievances or complaints, and can recommend changes in academic or administrative decisions where this seems justified. In handling a grievance or complaint, the Ombudsperson has access to all relevant files and information, and to all administrative records of the University, and is accountable only to the Governing Council.

For information, advice, or assistance, contact the Office of the University Ombudsperson, University of Toronto, 16 Bay Street, Toronto, Ontario M5S 1A1 (Telephone (416) 978-4574).
Programmes of Study

1 Students must select and register in a programme or programmes following the session in which they receive their fourth credit. Note that some programmes have limited enrolment. See the programme descriptions for admission requirements. A list of Programmes may be found on page 17.

Specialist Programmes
1 Specialist Programmes are designed to provide depth and intensity of study within a chosen area defined in a discipline, a group of disciplines, or a particular theme or area of study. A Specialist Programme may be taken only as part of an Honours or a Bachelor of Commerce degree and will consist of at least nine courses. There are six Specialist (Co-operative) Programmes.

Major Programmes
2 Major Programmes are designed to provide concentration in an area of study defined in a discipline, a group of disciplines or a particular theme or area of study. A Major Programme may be taken as part of either a three-year or an Honours degree and will consist of at least eight courses.

Minor Programmes
3 Minor Programmes are designed to provide study in a specific area for students seeking well-rounded but coherent programmes of study in different areas of the curriculum. A Minor Programme may be taken as part of either a three-year or an Honours degree and will consist of at least four full courses, including at least one C- or D-level course.

Approved Individual Programmes
4 Students may propose individual Programmes 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 Programmes should specify four courses for a Minor Programme, six to eight courses for a Major Programme and ten to fourteen courses for a Specialist Programme. The courses should all be offered on the Scarborough Campus and should form a logical programme. The student should offer a rationale for the proposal. Proposals should be submitted to the Registrar at least eight months prior to the session in which the student expects to graduate.

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

While students in their first year of full-time study, or first four courses of part-time study, are not required to select a Programme, they should, when selecting their first year courses, consider carefully the requirements of any Programmes they may later choose to follow. Supervisors, instructors in A-level courses, and academic counsellors may be consulted for assistance. Students who have registered in a Programme should consult annually with the supervisors of their Programmes to ensure that their course selection will meet Programme requirements.

Students must register in their Programme following the session in which they attain their fourth credit.

Programme transfers
Students who wish to transfer from one Programme to another after classes have started should discuss the proposed transfer with the supervisor of the new Programme and submit a programme selection form to the Registrar's Office. (If enrolment in the new Programme is limited, the form must be signed by the Programme supervisor.)

Certification of completion of Programmes
Students request certification of completion of their Programmes early in their final session of study at the College, at the same time as they request graduation.

Programmes of Study and Course Descriptions

The following Programmes are offered at University of Toronto at Scarborough.
All Specialist and Major Programmes in Economics, Management, all Co-operative Programmes, the Computer Science and Information Systems Stream in Specialist Programme in Computer Science, the Specialist Programme in Neuroscience and the Specialist Programme in Visual and Performing Arts have strict enrolment limits. For details on application to the Programmes, see the appropriate discipline entry in this Calendar. In the event that the number of qualified applicants exceeds the teaching or other resources available, enrolment in other Programmes may have to be limited at a future date. In the event of under-enrolment, some of these Programmes may have to be withdrawn.

Specialist Programmes - Type of Degree

Anthropology - B.A. / B.Sc.
Biological Chemistry - B.Sc.
Biological Sciences - B.Sc.
Cell & Molecular Biology - B.Sc.
Cognitive Science - B.Sc.
Computer Science - B.Sc.

• General Stream
• Information Systems Stream
• Joint Mathematics Stream
• Joint Physics Stream
• Joint Statistics Stream
• Software Engineering Stream

Economics - B.A.
Economics & Mathematics - B.A.
Economics & Political Science - B.A.
English* - B.A.

Environmental Science - B.Sc.

• Environmental Systems Stream
• Environmental Biology Stream
• Environmental Chemistry Stream
• Education of Teachers in French - B.A.

History* - B.A.
Management - B.A.
Marketing & Economics - B.Com.
Marketing & Economic Theory - B.Com.
Management & Language (French) - B.A.
Mathematics - B.Sc.
Mathematics & Statistics - B.Sc.
Neuroscience - B.Sc.
Physical & Mathematical Sciences - B.Sc.
Political Science - B.A.
Psychology* - B.Sc.
Sociology - B.A.
Visual & Performing Arts - B.A.
Co-operative Programmes - Type of Degree
Arts Management - B.A.
International Development Studies - B.A. / B.Sc.
Computer Science - B.Sc.
Environmental Science - B.Sc.
Management - B.A.
Management & Economics - B.Com.

Co-operative Programmes are work-study Programmes which are designed to integrate related, practical experience with regular university studies. All Co-operative Programmes are Specialist Programmes and may be taken only as part of a four-year degree. Most Co-operative Programmes, however, will require up to five years to complete because of the time required for the work placements.

Minor Programmes ** - Type of Degree
Arts Management - B.A.
Biological Sciences - B.Sc.
Classical Studies - B.A.
Drama - B.A.
Economics - B.A.
English Literature - B.A.
English Literature & Culture - B.A. +
Environmental Science - B.Sc.
French - B.A.
French for Francophone Students - B.A.
History - B.A.
International Development Studies - B.A. +

Linguistics - B.A.
Music History - B.A.
Political Science - B.A.
Psychology - B.Sc.
Sociology* - B.A.
Studio - B.A.
Women's Studies - B.A.

* There are Programmes which the College makes available to students who are able to study in the evening only.

** Where students use a combination of three programmes to satisfy the requirements of an Honours degree, in order to receive a B.Sc., two of the three must be in the sciences.

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

Certificate Programmes
Business
Pending approval of the Governing Council of the University

Administrative Affairs

Administration

(8.2)

Specialist (Co-operative) Programme in Administration will be discontinued as of the 1996 session. Students who have already been admitted and wish to remain in this Programme must continue to satisfy the requirements specified in the 1995 Calendar. Please refer to the Management section of the Calendar for information on the Specialist (Co-operative) Programme in Management & Economics.

Specialist in Strategic Management

(8.1)

Specialist in Strategic Management is a five-year program designed to provide students with a solid understanding of the major factors underlying human existence and to isolate the causes that have led and continue to lead to social and cultural change and to differences between people and cultures.

Because of the vastness of its 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 at Scarborough offers courses in the first three areas. Students interested in pursuing appropriate course sequences in one of the sub-fields are invited to consult with one of the faculty in the appropriate sub-field and with the Supervisor of Studies.

Students may elect either a B.A. or a B.Sc. degree in Anthropology. The requirements for a B.A. Specialist or Major are that at least seven of the twelve full course equivalents in Anthropology should be courses with science credit. Most courses in Anthropology and Physical Anthropology, excluding Introduction to Anthropology, carry science credit. Consult the Discipline Representative for clarification.

The following courses in Anthropology may be used to fulfill requirements for the B.Sc. degree: ANTH113, ANTH121, ANTH131, ANTH241, ANTH252, ANTH262, ANTH274, ANTH275, ANTH282, ANTH321, ANTH325, ANTH331, ANTH341, ANTH342, ANTH382, ANTH384, ANTH385, ANTH395, ANTH481, ANTH482, ANTH485, ANTH581, ANTH582, ANTH583, ANTH584, ANTH585, ANTH586, ANTH587, ANTH588, ANTH589, ANTH591, ANTH592, ANTH593, ANTH594, ANTH595.

SPECIALIST PROGRAMME IN ANTHROPOLOGY

The Specialist Programme in Anthropology is intended to provide the professionally-oriented student with a background preparation of sufficient breadth and depth to pursue specialized training at the graduate level. It is designed to offer interested students a course structure of sufficient flexibility to follow their intellectual interests into the diverse, yet cohesive, perspective on the human phenomena provided by Anthropology.

All students are required to consult with the Supervisor concerning the selection of a four-year programme appropriate to their interests and objectives.

Administration / Anthropology

Anthropology

(8.2)

Specialist (Co-operative) Programme in Administration will be discontinued as of the 1996 session. Students who have already been admitted and wish to remain in this Programme must continue to satisfy the requirements specified in the 1995 Calendar. Please refer to the Management section of the Calendar for information on the Specialist (Co-operative) Programme in Management & Economics.

Faculty List


J. Boddy, B.A. (McGill), M.A. (Calgary), Ph.D. (UBC), Professor

F. D. Burton, B.Sc., M.A. (NYU), Ph.D. (CUNY), Professor

M. Lambrick, B.A. (McGill), M.A., Ph.D. (McGill), Professor

R. W. Shirley, M.A. (Stanford), Ph.D. (Columbia), Professor

G. S. Gillmor, B.A. (McGill), Ph.D. (CUNY), Associate Professor

M. Latka, B.A. (Kaiserslautern), M.A., Ph.D. (Toronto), Associate Professor

L. Sawchuk, B.A., M.A. (McGill), Ph.D. (Toronto), Associate Professor

Discipline Representative / Supervisor of Students: M. Lambrick (877-7171)

Anthropology is the study of human kind, dealing with the origins, 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 arrive at an

understanding of the common factors underlying human existence and to isolate the causes that have led and continue to lead to social and cultural change and to differences between people and cultures.

Because of the vastness of its 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 at Scarborough offers courses in the first three areas. Students interested in pursuing appropriate course sequences in one of the sub-fields are invited to consult with one of the faculty in the appropriate sub-field and with the Supervisor of Studies.

Students may elect either a B.A. or a B.Sc. degree in Anthropology. The requirements for a B.A. Specialist or Major are that at least seven of the twelve full course equivalents in Anthropology should be courses with science credit. Most courses in Anthropology and Physical Anthropology, excluding Introduction to Anthropology, carry science credit. Consult the Discipline Representative for clarification.

The following courses in Anthropology may be used to fulfill requirements for the B.Sc. degree: ANTH113, ANTH121, ANTH131, ANTH241, ANTH252, ANTH262, ANTH274, ANTH275, ANTH282, ANTH293, ANTH294, ANTH295, ANTH321, ANTH325, ANTH331, ANTH341, ANTH342, ANTH381, ANTH382, ANTH384, ANTH385, ANTH386, ANTH387, ANTH388, ANTH389, ANTH391, ANTH392, ANTH393, ANTH394, ANTH395, ANTH581, ANTH582, ANTH583, ANTH584, ANTH585, ANTH586, ANTH587, ANTH588, ANTH589, ANTH591, ANTH592, ANTH593, ANTH594, ANTH595.

SPECIALIST PROGRAMME IN ANTHROPOLOGY

The Specialist Programme in Anthropology is intended to provide the professionally-oriented student with a background preparation of sufficient breadth and depth to pursue specialized training at the graduate level. It is designed to offer interested students a course structure of sufficient flexibility to follow their intellectual interests into the diverse, yet cohesive, perspective on the human phenomena provided by Anthropology.

All students are required to consult with the Supervisor concerning the selection of a four-year programme appropriate to their interests and objectives.
The Programme requires completion of twelve full-course equivalents, no less than three of which will be in Anthropology. Students must complete a least eight full-course equivalents in disciplines other than Anthropology within the four-year degree programme. The courses within the Programme are to be selected as follows:

1. ANTAGY Introduction to Anthropology
2. At least two full-course equivalents from among the following:
   - ANTR101Y Biological Anthropology
   - ANTR201V Social and Cultural Anthropology
   - ANTR211P Introduction to World Prehistory 1
   - ANTR212S Introduction to World Prehistory 2
3. Seven full-course equivalents from the remaining B-, C-, or D-level courses in Anthropology, at least two of which must be at the C- or D-level.

Students are encouraged to take at least one course in Methodology, such as ANTR211 in exceptional circumstances supervosed research and reading courses are available at the C- (ANTR212P, ANTR213S) and D-levels (ANTR211F, ANTR212F). Be sure to read the descriptions for these courses below, as restrictions apply.

4. At least two full-course equivalents in disciplines other than Anthropology must be agreed upon in consultation with the Supervisor.

The Programme requires completion of six full-course equivalents in Anthropology, including:

1. ANTAGY Introduction to Anthropology
2. At least one full-course equivalent from among the following:
   - ANTR101Y Biological Anthropology
   - ANTR201V Social and Cultural Anthropology
   - ANTR211P Introduction to World Prehistory 1
   - ANTR212S Introduction to World Prehistory 2
3. Four additional full-course equivalents from B-, C-, or D-level courses in Anthropology, at least one of which must be at the C- or D-level.

Students are required to consult the Supervisor regarding course selection, and requirements and are strongly urged to take at least seven full-course equivalents in disciplines other than Anthropology within the three-year degree programme.

The Minor Programme in Anthropology provides a course structure for students majoring or specializing in other disciplines who want some direct exposure to anthropological thought. The Programme requires completion of four full-course equivalents including:

1. ANTAGY Introduction to Anthropology
2. At least one full-course from among the following:
   - ANTR101Y Biological Anthropology
   - ANTR201V Social and Cultural Anthropology
   - ANTR211P Introduction to World Prehistory 1
   - ANTR212S Introduction to World Prehistory 2
3. Two additional full-course equivalents in Anthropology, at least one of which must be at the C- or D-level.

Students are required to consult with the Supervisor regarding course selection. Identification of potential interdisciplinary streams (social-cultural, physical, archaeological), and course requirements.

ANT400F Introduction to Archaeological Materials
   Phone ID: 00702463
   An introduction to the study of prehistoric and historic archaeological materials including ceramics, textiles, metal and faunal bone.

Students will carry out analyses on samples of artifacts, learning about their construction, their functions and their development through time. This course will lead to consideration of the survival and importance of "archaeological" technologies in both developing and developed modern communities.

ANT403 Comparative Slavery
   Phone ID: 00702703
   An examination of slavery as an institution in several areas of the world.

ANT401Y The Ecological Perspective in Anthropology
   Phone ID: 00702163
   An examination of the relationship between human populations and cultural systems with their environments.

This course examines such interrelationships in terms of differences in technology, subsistence practices, social organization and ideology. Emphasis will be placed on the perspective which attributes variability in human cultural behaviour to the solution of problems of adaptation and evolutionary change. But other positions will also be considered such as optimal foraging strategies.

Prerequisite: ANTAGY Session: Winter Day 7.A.A.

ANT305 The Americas: An Anthropological Perspective
   Phone ID: 00702055
   A survey of the cultural history of the Americas, including the origins and development of native cultures with particular emphasis on changes due to European contact. Principal emphasis will be on the information of modern Latin American societies.

Complementary: ANTR213S (ANT37) is recommended
Session: Winter Day R.W. Shirley

ANT317V Introduction to Biological Anthropology
   Phone ID: 00702153
   A survey of the human place in nature: origin and evolution of the human species. Basic to the course is an understanding of the synthesis of genetic and environmental factors. Laboratory projects acquaint the student with the methods and materials utilized by the Physical Anthropologist. Specific topics include: human evolution, modern humans, the evolutionary theory, the biological basis for human variation, the development of evolutionary theory, the development of evolutionary theory, the biological basis for human variation, the evolutionary forces, human adaptability, primeval biology, social organization and behaviour of non-human
ANTH201F Canadian Native Peoples
Telephone ID #: 00721211
This course examines the traditional cultures of Canadian native peoples through the media of anthropology, ethnohistory and oral tradition. Questions 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.
Exclusion: ANTAG2Y or permission of the instructor.
Session: Winter Day M. Latta

ANTH202Y Private Behaviour
Telephone ID #: 00722283
A general introduction to the study of the lifeways of non-human primates with particular emphasis on observing and recording primate behaviour. Readings and lectures develop the context in which observations are analyzed. Tools of recording and analysis are practiced and presented in seminars.
Exclusion: ANTC23
Prerequisite: ANTAG2Y or ANT15Y or PSY101Y or BIO20Y
Session: Winter Day P.D. Burton

ANTH205F Myth and Symbol
Telephone ID #: 00724933
An examination of the nature of myth and symbol from an anthropological perspective.
Using narratives recorded in small-scale societies of Amazonia, Africa, Australia and Melanesia, the course will critically examine various ways anthropologists make sense of myth. Myths are treated as idealized history. Dogmas about the nature of the world and the origin of humanity, mechanisms of sociological information, and expressions of the structure of the human mind. The course traces changes in themes and styles of myth interpretation, especially those that parallel shifts in sociological and psychological theories of symbol formation.
Prerequisite: ANTAG2Y
Session: Winter Day G. Gillison

ANTC02F and ANTC04B Directed Reading
In Anthropology
A directed exploration of specific topics in Anthropology, based on extensive investigation of the literature.
These courses are available in exceptional circumstances and do not duplicate regular course offerings. Students are advised that they must obtain consent from the supervising instructor before registering. Individual materials, as arranged. In addition to course work to be decided by the instructor, one seminar presentation of the student's research findings is required.
Prerequisite: ANTAG2Y & one B-level full-course Anthropology & permission of the instructor.
Session: Winter Day, Winter Evening, Summer Evening
Members of Faculty

ANTC100 Anthropological Perspectives on Development
Telephone ID #: 00731053
A critical examination of the concept and practices of development in several Third World societies. Attention will be paid to issues of colonization and the postcolonial order, the global capitalisms, and the intersection of Western ideas with local knowledge and practices. Seminar. Limited enrolment: 20.
Prerequisite: ANTB20Y or permission of the instructor.
Session: Winter Day T.B.A.

ANTC129Y Research on the Social Behaviour of Non-Human Primates I
Telephone ID #: 00737243
The purpose of this course is to learn field techniques in the study of non-human primates. The current subjects are Old World Monkeys (vervets, Cercopithecus aethiops) which were translocated to Barbados from 3 hundred years ago. Observations and data are recorded over 2 weeks of field work. Observation is from dawn till dusk. Evenings are set aside for discussion, transcriptions and analysis. In addition, there are guest lectures from local ethologists and wildlife conservationists, and visits to important sites. There will be some free time. Registration includes participation, preliminary research, field notes, log book and seminar and/or paper. Fees of approximately $1500-$2000 includes air fare and local transportation, and shared room/apartment. Deposit must be made by May 30. Participation is by permission of instructor. Please contact Professor Burton directly for further information at e-mail: burton@acm.carleton.ca or (416) 287-7245. Enrolment is limited to 10.
Prerequisite: ANTB20Y
Session: Winter Day P.D. Burton

ANTC225F Gifts, Money and Mortality
Telephone ID #: 00730233
Under capitalism everything is ultimately for sale. Conversely there is currently a demand for public institutions to be funded by means of private donations. Yet both of these trends, the spread of commoditization into private life and the gift-giving into public life, provoke uneasiness. What limits exist, or can be set to commoditized relations? To what extent can money be transformed into virtuo, private goods into the public "good"? After a relatively brief consideration of what classic social thinkers (Marx, Simmel, Weber) have had to say about money and its effects, we will examine the anthropological literature on gift-giving, non-western systems of exchange and value systems to distinguish commodities from gifts and favor in the Chinese zhuang bureaucracy, the tyranny of hospitality in a Yemeni town, and sacrifice and the collection of tribute in a Mahagaya sacred kingdom.
Finally, we will think about how Canadians understand paying taxes, giving alms, and donating to good causes (what the University of Toronto at Scarborough now refers to as 'Advancement'). Students will be expected to construct and carry out a short ethnographic project on money in our own society, a subject at once obvious and obscure.
Prerequisite: ANTAG2Y or permission of the instructor.
Session: Winter Day M. Latta

ANTB01Y First Nations of North America
Telephone ID #: 00733863
An introduction to the establishment and diversification of native traditions in North America from a late Paleolithic hunting base to the emergence of civilization in Mesopotamia. The course will focus on processes of cultural change and on archaeological methods of reconstructing the past. Primary attention will be paid to the civilizations of the eastern and southwestern United States. At the end of the course, a field trip to Ohio will permit students to obtain first-hand experience of the remains of the Hopewell moundbuilders, one of the most interesting early traditions in this region.
Exclusion: ANTB23
Prerequisite: ANTAG2Y
Session: Winter Day M. Latta

ANTC205F Fieldwork in Social and Cultural Anthropology
Telephone ID #: 00736503
An introduction into how social-cultural anthropologists collect data and construct the course of fieldwork.
Students will be introduced to the fieldwork experience both through reading some of the classical descriptions of research in toxic societies and by designing and carrying out a small project or projects here in Toronto. We will cover such topics as the nature and uniqueness of the participant-observation method, note-taking and organization, emotive and ironic approaches, selecting informants/consultants, informal interviewing, and household surveys. We will also consider such problems as choosing a field site, entering and living in a foreign community, culture shock and culture contact, and the ethical issues and medical needs of the researcher. Considerable attention will be given to ethical issues such as confidentiality and reciprocity that arise in fieldwork. Limited enrolment: 20 with preference given to students in anthropology and international development studies.
Prerequisite: Any B-level course in Anthropology or IDS or permission of the instructor.
Session: Winter Day T.B.A.
ANTC055 African Cultures and Society II: Case Studies
Exclusion: (ANTC050)
Prerequisite: ANTCC052 or ANTCC051

ANTC11Y The Anthropology of Women and Gender
Exclusion: ANTCC043
Prerequisite: ANTCC041 or WSTNJ01 or permission of the instructor

ANTC135 The Anthropology of Race and Ethnicity
Exclusion: ANTCC045
Prerequisite: ANTCC041 or permission of the instructor

ANTC179 The Anthropology of Human Evolution
Exclusion: ANTCC047
Prerequisite: ANTCC041 or permission of the instructor

ANTC205F The Anthropology of Religion
Exclusion: ANTCC049
Prerequisite: ANTCC041 or permission of the instructor

ANTC260F The Anthropology of the Body
Exclusion: ANTCC051
Prerequisite: ANTCC041 or permission of the instructor

ANTC21Y The Anthropology of Race and Ethnicity
Exclusion: ANTCC047
Prerequisite: ANTCC041 or permission of the instructor

ANTC301Y The Anthropology of Religion
Exclusion: ANTCC051
Prerequisite: ANTCC041 or permission of the instructor

ANTC305Y The Anthropology of the Body
Exclusion: ANTCC051
Prerequisite: ANTCC041 or permission of the instructor

ANTC31Y The Anthropology of Women and Gender
Exclusion: ANTCC043
Prerequisite: ANTCC041 or permission of the instructor
## Biological Sciences (B.Sc.)

### Faculty List
- I.C. Elgie, B.Sc. (Abderdeen), Ph.D. (Sheffield), D.Sc. (Abderdeen), F.R.S.C., Professor Emeritus
- F.A. Urquhart, B.A., M.A., Ph.D. (Toronto), Professor Emeritus
- A.H. Waddington, B.Sc. (Sydney), M.Sc. (Tasmania), Ph.D. (Glasgow), Professor Emeritus
- G.R. Williams, B.Sc., Ph.D., D.Sc. (Liverpool), F.R.S.C., Professor Emeritus
- R. Boersma, B.Sc. (Calgary), Ph.D. (British Columbia), Professor
- J.R. Dyer, B.Sc. (Carleton), Ph.D. (Texas), Professor
- C.R. Gawlak, B.Sc. (Koninklijke), M.Sc. (Nurs.), M.D. (Utrecht), Associate Professor
- J.W. Gutt, B.A., M.A. (Mount Allison), Ph.D. (McGill), Professor
- C. Nalewaja, B.Sc., Ph.D., D.Sc., (University College London), Professor
- J.C. Silver, B.Sc., Ph.D. (CUNY), Professor
- R.F. Thompson, M.A., Ph.D. (Toronto), Professor
- D.D. Williams, B.Sc. (University College London), Dip.Ed. (Liverpool), M.Sc., Ph.D. (Waterloo), D.Sc. (Wales), Professor
- J.M. Youn, M.A. (Victoria), M.Sc. (McGill), Ph.D. (Western Ontario), Professor
- R.E. Dehler, B.Sc., Ph.D., California Davis, Associate Professor
- M.F. Fillon, B.Sc. (St. Peter's), M.S. (Fordham), Ph.D. (Princeton), Associate Professor
- C.D. Riga, B.Sc. (North Carolina), Ph.D. (Florida State), Associate Professor
- N.E. Williams, B.Sc. (Geel), M.Sc. (Waterloo), Ph.D. (Toronto) Associate Professor
- C. J. H. Anke, B.S. (Loyola), M.Sc., Ph.D. (Florida State), Assistant Professor
- D.R. Kyle, B.Sc., M.Sc. (Queen's), M.Sc. (Toronto), Ph.D. (British Columbia), Associate Professor
- A.C. Vachniksky, B.Sc. (Western Ontario), Ph.D., (Queen's) Assistant Professor
- C. Pickert, B.Sc., M.A. (Toronto), Senior Tutor

### Associate Chair: R.E. Dehler

From its early beginnings as a descriptive science, biology has developed into a sophisticated experimental science employing other basic sciences such as chemistry, physics, and mathematics. Modern biology includes the study of the structure and function of all living organisms, including humans. Within biology, various core areas may be distinguished: morphology, taxonomy, physiology, cell biology, biochemistry, genetics, evolution, and ecology. Additional to their fundamental significance, these areas are central to understanding and solving many problems currently confronting humanity.

Four Programs are offered in Biological Sciences. These include the Biological Sciences Minor and Major Programmes and two Specialist Programmes: Biological Sciences and Cell and Molecular Biology. The Minor Programme is intended for students who have an interest in Biology, but who wish to focus their studies in Physical Sciences, Social Sciences, Management and Economics, or Humanities. The Major Programme is intended for students who are interested in Biology and who wish to combine these studies with other areas of interest. The Specialist Programmes permit students to focus their studies on areas of contemporary biology which are of particular interest to them. The Biological Sciences Specialist degree offers the most flexibility for students who wish to concentrate on more than one area of biology. The Cell and Molecular Biology Programme is more tailored to students who have a particular interest in this area.

All students-regardless of the Programme are required to take a set of three second-year core lecture courses in Cell and Molecular Biology, Plant and Animal Physiology, and Ecology and Evolutionary Biology, and are also required to take one of the three core laboratories in these areas. Students are allowed to consult the specific programme requirements for their degree, to meet with the appropriate programme supervisor for advice, and to obtain a copy of the Biology students' handbook from the divisional office (S-319 or S-321A) which has more detailed information and suggestions for streaming. In a few instances, courses from the other programmes may be used to satisfy programme requirements, but such substitutions must be pre-approved by the Supervisor of Studies. Students who are contemplating enrolment in graduate or professional schools should consult their programmes for specific entrance requirements which might be satisfied while fulfilling degree requirements.

---

**The Biology Students' Handbook**

A web site exists for Biology students at: [http://www.scar.tornto.on.ca/biology/biology-handbook/](http://www.scar.tornto.on.ca/biology/biology-handbook/)

On the web page, students will find the information in the latest calendar, advice on choosing courses, and answers to frequently asked questions.

### Courses in Neuroscience

To facilitate organization of the calendar, all Neuroscience courses that formally had 810 designations now have been given NRO designations. Consequently, these courses appear only in the Neuroscience listings. Students interested in including Neuroscience courses in their Biology programme should consult the Neuroscience section for details. Former NRO course numbers are indicated there as well.

**First Year Students in Biology**

Students who are intending to pursue Biology Programmes should take BIO101Y, CHIM101Y, & MAT120Y in first year.

### MINOR PROGRAMME IN BIOLOGICAL SCIENCES

**Supervisor: C.R. Gilling**

(Room S-407C, 287-7377)

This programme must include BAYA01Y plus three full-course equivalents in Biology. At least 1 F.C.E. must be at the C or [D]-level.

### MAJOR PROGRAMME IN BIOLOGICAL SCIENCES

**Supervisor: C.R. Gilling**

(Room S-407C, 287-7377)

This programme consists of 8 required F.C.E.'s:

1. Four F.C.E.'s consisting of the core curriculum component: BAYA01Y, BAYB09Y, BAYB09Y, BAYB09Y
2. One-half F.C.E. from among the three core labs: BAYC32S, BAYD32S, or BAYD32S
3. One-half F.C.E. from the offerings in Structure and Diversity: BAYC17S, BAYC17S, BAYC22S, BAYC22S, BAYC22S, BAYC24S, BAYC25S, BAYD33S, or BAYD33S.
4. Two additional F.C.E.'s in Biology, or.
5. One F.C.E. in CHIM101Y.
The Special Programme in Biological Sciences

Supervisor: C.K. Goward

ROOM: 427C, 287-777

This Programme consists of 13.5 required P.C.E.'s. Students are encouraged to take CH1AD2Y during the first year and an appropriate core laboratory during the second year, as this provides the most flexibility for taking C- and D-level courses. The specific programme requirements are:

1. Four P.C.E.'s consisting of the core curriculum components: BOY101Y, BOY110Y, BOY120Y, BOY130Y.
2. One-half P.C.E. from among the four listed below: BOY201Y, BOY210Y, BOY220Y, or BOY230Y.
4. One-half P.C.E. from the offerings in Plant Biology: BOY252Y, BOY260Y, BOY270Y, BOY280Y, BOY290Y, or BOY304Y.
5. Four and one-half P.C.E.'s in additional Biology courses.
6. One P.C.E. in CH2AD2Y.
7. One-half P.C.E. in physics (PHYA105 or PHYA125)
8. One P.C.E. in MAT1AD2Y or MAT2AD2Y.
9. One P.C.E. from the courses listed by the Division of Humanities, Social Sciences, or Management and Economics.

Special Programme in Cell and Molecular Biology

Supervisor: J.H. Yossan

ROOM: 555A, 587-747

This programme consists of 15 required P.C.E.'s. Students in this programme must take CH1AD2Y during the first year, and CHM1AD2Y and CHM2AD2Y during the second year to properly stream through the programme. The required programmes are:

1. Four P.C.E.'s consisting of the core curriculum components: BOY110Y, BOY210Y, BOY230Y, or BOY240Y.
2. One-half P.C.E. in BOY120Y.
4. One P.C.E. from among the following Cell and Molecular Biology courses: BOY215Y, BOY218Y, BOY219Y, BOY220Y, BOY225Y, BOY226Y, or BOY230Y.
5. Two P.C.E.'s in CHM1AD2Y and CHM2AD2Y.
6. One P.C.E. in Physics (PHYA105 or PHYA125).
7. One P.C.E. in MAT1AD2Y or MAT2AD2Y.
8. One P.C.E. from the courses listed by the Division of Humanities, Social Sciences, or Management and Economics.

Special Programme in Conservation Biology and the Environment

The Special Programme in Conservation Biology and the Environment has been discontinued. However, students currently registered in this programme will be permitted to complete the programme. Biology students who are interested in this area may want to consult the Biology stream of the proposed new Environmental Science Programme (see page 132 of the Calendar).

BOYAD2Y Introductory Biology

Telephone ID #: 4171013

BOYAD2Y is a lecture and laboratory course designed to examine levels of organization beginning with biological molecules, then proceeding to cells, tissues, organs, organisms and populations and to examine their relationship and interaction with populations and their environments. The introductory biology course is in effect, a selected review of the discipline and is a prerequisite for all further courses in biology. The first quarter of the course deals with cell structure and function, genetics, evolution, and ecology. The second quarter covers mammalian, avian, reptilian, amphibian, and plant systems, reproduction, and categorization. The third quarter concentrates on systematic and evolutionary biology. The Pre- and Corequisite for BOYAD2Y are: BBOA107Y or BOYAD107Y Winter Day D. Riggs

BOY120Y Cell and Molecular Biology Laboratory

Telephone ID #: 4171253

BOY120Y is 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 and Molecular Biology speciality to get into upper level laboratory exercises. The lab will meet twice per week for three hours in that students acquire fundamental skills necessary for advanced laboratories. Exclusion: BOY120Y Winter Day D. Riggs

BOY130Y Animal and Plant Physiology Laboratory

Telephone ID #: 4173063

Physiological aspects of plants and animals. A core course in physiology with one of the two terms devoted to animal physiology and the other to plant physiology. The animal physiology term will consider regulatory mechanisms which control and coordinate the functioning of the body such as nerve activity potentials, autonomic transmission, muscle contraction, neuroendocrine systems, sensory receptors, and hormone action. The plant physiology term will consider the structure of plant cells, the transport and translocation of water, dissolved materials and organic compounds, the use of light energy to convert carbon dioxide to carbohydrates in photosynthesis; the regulation of growth and development through the co-ordinated action of specific hormones and environmental cues; and adaptations of plants to their environments. Two one-hour lectures per week, plus one two-hour tutorial every third week. Note: Tutorial times alternate with those in BOY130Y or BOYAD2Y. Exclusions: BBOA06Y, BOB11Y, BBOA107Y Pre-requisite: (BBOA103Y or BOY1AD2Y) Winter Day C. Goward / G. Vanderbergh / D. Hia / C.K. Goward

BOY1910Y Cell and Molecular Biology Laboratory

Telephone ID #: 4172103

An introduction to cellular and molecular aspects of cells and organisms. This core course will provide a survey of the methods by which molecules and cells are studied and how genetic information is utilized to affect normal metabolism and to allow the cell to respond to external stimuli. Some of the topics to be covered include: the flow of genetic information from DNA to RNA to proteins, RNA processing, basic mechanisms that control gene expression, the structure and function of membranes and the maintenance of subcellular compartments, protein sorting, energy production and utilization, the cytoskeleton and cell motility, the cell cycle, and intercellular interactions and signal transduction mechanisms.

Two one-hour lectures per week, plus one two-hour tutorial every third week. Note: Tutorial times alternate with those in BOY191Y or BOY130Y. Exclusions: (BBOA06Y, BOB11Y, BBOA107Y) Pre-requisites: (BBOA103Y) or BOY1AD2Y Session: Winter Day C. Goward / G. Vanderbergh / D. Hia / C.K. Goward

BOY1923F Animal Physiology Laboratory

Telephone ID #: 4172223

A course devoted to laboratory exercises in regulatory mechanisms that control and co-ordinate the functioning of the body. Laboratory exercises examine aspects of nerve, compound action potential, chemical synaptic transmission in the CNS and periphery, cardiac muscle contraction including fast and slow types, heart rhythmicity, and mechano-receptor. Written reports and tests of the laboratory exercises and a formal examination of all the material are required. One three-hour laboratory per week and a one-hour lecture as required. Exclusions: (BBOA06Y, ZOO225Y) Pre-requisite: BOY191Y or BOY130Y Session: Winter Day C.K. Goward

BOY1950Y Ecology and Evolutionary Biology

Telephone ID #: 4172563

Evolution is the study of the change of the form and/or function of organisms between generations. Ecology is the study of the interrelationships that determine the distribution and abundance of organisms. The full term covers the development of evolutionary theory, maintenance of genetic variation, origins of species, adaptation, and phylogenetics. The spring term covers symbioses of populations, species interactions (competition, predation, herbivory, community energetics, nutrient cycling, and conservation).
One-hour lecture per week, plus one two-hour tutorial every third week.

NOTE: Tutorial times alternate with those in BGVC240Y or BGVC235Y.
Exclusions: (BI082Y), BI030Y Pre-requisite: (BGVC240Y) or BI086Y or (BI030Y)
Session: Winter Day
P. Thompson / D. Ork

BGVC235 Ecology and Evolutionary Biology Laboratory Telephone ID #: 4172523
The emphasis will be on hands-on experimentation, interpretation, and statistical analysis as well as familiarization with computing and ecology. Experiments will cover vegetation analysis, computer simulations, competition and growth, interesting, acidification, and community dynamics. This course will utilize computer resources of the college.
One hour lecture per week and one four-hour lab per week.
Exclusion: (BI082Y), BI030Y Pre-cor: Corquisite: BGVC205Y
Session: Winter Day
T.B.A.

BGVC15F Biochemistry I: Proteins & Enzymes Telephone ID #: 4173123
A course designed to introduce students to the properties and behavior of proteins and enzymes.
The course will analyze factors involved in determining protein structure and the relationships between protein structure and function. Topics will include: the chemistry of amino acids, the primary, secondary, tertiary and quaternary structures of proteins, protein models and protein domains; glycoproteins, lipoproteins; ribonucleic and protein-DNA interactions; the analysis of the interaction of small molecules with proteins; classical enzyme kinetics and aliphatic enzymes; mechanisms of enzyme action.
Three one-hour lectures per week.
Exclusion: (BI082Y), (BGVC235Y), BCh220Y, BCh221Y
Pre-requisite: (BI082Y) or BGVC205Y & CHM144Y
Session: Winter Day
J.W. Gard

BGVC135 Biochemistry I: Bioenergetics and Metabolism Telephone ID #: 4173135
A course designed to introduce students to cellular metabolism, the process by which living organisms are able to extract and utilize energy from their environment for the maintenance of life.
Topics will include: basic principles of bioenergetics, chemiosmotic and oxidative phosphorylation, carbohydrate metabolism, aspects of the metabolism of lipids and amino acids; metabolic control mechanisms including allosteric control, protein phosphorylation systems, and hormonal regulation of metabolism. The integration of metabolic pathways will be discussed.
Three one-hour lectures each week.
Exclusion: (BGVC240Y), (BGVC235Y), BCh220Y, BCh221Y
Pre-requisite: (BGVC240Y) or BGVC205Y & CHM144Y
Session: Winter Day
J.W. Gard

BGVC15F Transmission Genetics Telephone ID #: 4173153
A lecture and laboratory course in the genetics of inheritance.
The course will begin with a brief review of transcription and translation and the principles of regulation of gene expression. The first major segment will include eukaryotic inheritance and its chromosomal basis. Topics will include a consideration of segregation of alleles, independent assortment, mapping techniques, allelic relationships, gene interactions, and quantitative genetics. The second major segment will be a consideration of types of mutations: point mutations, mutations in chromosome structure, and mutations in chromosome number, and the relationship of mutations to genetic disease.
Two hoe-hour lectures and one, one-hour session of interactive problem solving per week, one three-hour lab in alternate weeks.
Exclusion: BGVC205Y
Pre-requisite: BI082Y
Seminar: Winter Day
C. Haenzelkamp

BGYC17F Microbiology II: The Bacterial Cell Telephone ID #: 4173173
A lecture and laboratory course describing the general properties of bacterial cells. Competing selection organisms to illustrate the role of bacteria in health, research, biotechnology, the environment and in any field using molecular biology and recombinant DNA approaches. Students will gain awareness of the specialized organization of bacterial cells and physiological abilities and how these influence organisms, including ourselves. The laboratories include practical training in basic microbiological techniques which are useful in molecular biology and many other fields.
One two-hour lecture and three hours of laboratory work each week.
Exclusion: (BI082Y), MPl200Y
Pre-requisite: (BGVC240Y) or BGVC205Y or BGVC235Y
Session: Winter Day
J.C. Silver

BGVC15F Microbiology I: Perspectives of the Microbial World Telephone ID #: 4173183
A lecture course in which the relationships between microorganisms and human populations are investigated. Many of these interactions are quite beneficial (e.g. recombinant DNA technology and biotechnology), while others are enormously detrimental (e.g. infectious diseases). Examples of both types of interactions will be discussed in gain a perspective on the importance of these cell types.
One two-hour lecture per week.
Exclusion: (BI082Y)
Pre-requisite: BIOC175Y or permission of the instructor for students not in the Cell and Molecular Biology Programme.
Session: Winter Day
I.C. Silver

BGYC19F Animal Developmental Biology Telephone ID #: 4173193
This lecture course aims at an understanding of animal development by examining the cellular, genetic and molecular bases of the processes of embryogenesis, cell differentiation, morphogenesis and pattern formation. Examples will be drawn from a wide variety of organisms including mammalian, amphibian and the mouse.
One two-hour lecture per week.
Exclusion: (BI082Y)
Pre-requisite: (BGVC240Y) or BI082Y
Session: Winter Day
M.P. Filas

BGYC235 Verminata Histology: Organs and Tissues Telephone ID #: 4173235
This histological structure of the major organs systems of the vertebrate body: sense, ingestion, digestive, respiratory, excretory, reproductive. Particular emphasis is placed on functional morphology, evolution, and development.
One two-hour lecture, plus one two-hour tutorial per week.
Exclusion: (BI082Y) or BIOC215Y
Pre-requisite: (BGVC240Y) or BIOC215Y
Session: Winter Day
J.H. Tsoum

BGYC235 Practical Approaches to Biochemistry Telephone ID #: 4173235
A course designed to introduce students to a range of experimental approaches used in biochemical research.
The course will introduce students to practical and theoretical aspects of a variety of procedures used in the biochemical laboratory including spectrophotometry, chromatographic procedures, electro- phoresis, the use of radioisotopes, protein purification. Students will be exposed to solve numerical problems involving these and related procedures.
One two-hour lecture / tutorial plus one four-hour laboratory each week.
Exclusion: (BIOC364Y), (BIOC365Y), BCH270Y, BCH271Y
Pre-requisite: BIOC215Y or BIOC235Y
Corequisite: BGCY185Y or (for students who have not completed BGCY35Y only)
Session: Winter Day
J.W. Gard

BGYC24F Molecular Biology of the Bacterial Cell Telephone ID #: 4173243
A lecture and laboratory course emphasizing the molecular mechanisms underlying bacterial cell processes such as active transport, chemotaxis, amino acid transport and gene regulation. The biology of bacterial host-vector systems used in recombinant DNA technology. Laboratory exercises are research-oriented experiments involving the growth and examination of bacterial cells, effects of antibiotics, incorporation of radiolabels into nucleic acids and proteins and the use of bacterial cells as vectors for foreign genes. Gel Electrophoresis, DNA digestion and sequence determination techniques are used.
One two-hour lecture and one three-hour laboratory per week.
Exclusion: (BIOC257Y)
Pre-requisite: (BGVC240Y) or BIOC215Y or BGCY235
Session: Winter Day
J.H. Tsoum
BOYC58F Comparative Morphology of Fungi, Algae and Bryophytes
Telephone ID: 41737253
A plant diversity course dealing with representative organisms from the major groups of fungi, algae and non-vascular plants. A comparative morphology approach with particular emphasis on reproduction helps to define the evolutionary relationships within and between these groups.
One two-hour lecture and alternate tutorial or three-hour laboratory per week. Offered in alternate years.
Exclusion: (BIC539F)
Prerequisite: (BIC505Y) or any B-level BGT course
Session: Winter
T.B.A.

BOYC582 Comparative Morphology of Vascular Plants
Telephone ID: 41732853
A plant diversity course covering structure, development and reproduction in representative organisms within the major groups of vascular plants: club mosses, spike mosses, horsetails, ferns, gymnosperms and angiosperms. Emphasis will be given to evolutionary trends in sexual reproduction in the seed plants.
One two-hour lecture and alternate tutorial or three-hour laboratory per week. Offered in alternate years.
Exclusion: (BIC5045S), BOT5310H
Prerequisite: (BIC505Y) or any B-level BGT course
Session: Winter
R.E. Douglas

BOYC58F Advanced Plant Physiology & Biochemistry
Telephone ID: 41737373
This course examines aspects of how plants function. An integrated approach is taken, in which topics are examined from physiological, biochemical and molecular biological perspectives. Lecture topics include: cell walls, carbon and nitrogen metabolism; hormones; regulation of gene expression; responses to light, pathogens and environmental stresses; lipid and secondary metabolism; membranes; transport; and prospects for plant improvements through gene transfer. Laboratories examine processes such as water relations; nutrient relations; hormonal action; photosynthesis; and symbiotic nitrogen fixation.
Two one-hour lectures per week and one three-hour lab or tutorial most weeks.
Exclusion: (BOT5015Y), (BOT5211F) or (BOT5211F) or (BOT5211F) or (BOT5211F) or (BOT5211F) or (BOT5211F) or (BOT5211F)
Session: Winter
G. Van Oosterhge

BOYC585 Marine Biology
Telephone ID: 41732553
A field course on selected topics of marine biology with particular emphasis on coral reefs. This course will be held during spring break at a field station in the Caribbean and will have a considerable practical component. Prior to field work, there will be a series of lectures at Scarsborough. 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 enrollment: 12
Exclusion: (BIOC165S), BIC501H
Prerequisite: (BIC501Y) or BIC505Y or permission of the instructor
Session: Winter
D.D. Williams

BOYC582 Microbes in the Environment
Telephone ID: 41735555
An examination of the relationships between microorganisms (algae, bacteria, fungi) and their environment.
Following a survey of microbial diversity, abiotic factors of major importance to microorganisms will be discussed. Fundamentals of microbial ecology in aquatic and terrestrial habitats will be examined, including physical, chemical and biological dynamics, interactions among microorganisms, productivity, and the role of microorganisms in nutrient cycling and food webs.
One two-hour lecture per week.
Several laboratory and problem sets.
Exclusion: (BIC5015S), (BIC501H)
Prerequisite: (BIC501Y) or (BIC501Y) or (BIC501Y) or (BIC501Y) or (BIC501Y) or (BIC501Y) or (BIC501Y)
Session: Winter
C. Nalewaja

BOYC65F Limnology
Telephone ID: 41736335
A branch of ecology dealing with the interactions of lake biota and the environment.
Physical, chemical, and biological properties of lakes will be examined with special reference to north temperate lakes. The structure and function of normal lake ecosystems will be examined with the aid of gaining insight into lake responses to anthropogenic perturbations such as nutrient pollution (eutrophication), acidification, and global climate change.
One two-hour lecture per week.
Several tutorials and problem sets.
Exclusion: (BIOC19F), ZOO501H, ZOO511Y
Prerequisite: (BIC512Y) or BIC515Y
Session: Winter
D. Hik

BOYC585 Evolutory and Applied Biology of Insects
Telephone ID: 41735755
An exploration of the origins of insects, their modern diversity, and their impact on mankind.
Coverage will begin by examining the evolutionary history of the group, which extends back over 400 million years, together with its diversity and morphology. This will be followed by consideration of those species which are important in maintained in terms of medicine, medicine (e.g., allergens, disease, and forensic science), and as competitors. The course will conclude with discussion of the pivotal role played by insects in world ecosystems.
One two-hour lecture / discussion group, and one three-hour laboratory per week. Offered in alternate years.
Exclusion: (BIC585S)
Prerequisite: (BIC501Y) or EESC504 Session: Winter
D.D. Williams

BOYC585 Advanced Community Ecology
Telephone ID: 41736153
The study of assemblages of populations living in a prescribed habitat.
This course examines both the theory and methodology of community analysis with an emphasis on the factors regulating the development of terrestrial ecosystems. The application of ecological theory to solving environmental problems is emphasized. Topics include succession, primary productivity, nutrient supply, herbivory, predation, competition, niche dynamics, stability and disturbance, introduced species, and effects of global change.
One two-hour lecture and one three-hour laboratory per week.
Exclusion: (BIOCS55S)
Prerequisite: (BIOCS55S) or BIC505Y or permission of the instructor
Session: Winter
D. Hik

BOYD51Y Supervised Study in Biology
An independent study course designed to permit intensive study of particular topics as determined by the literature of a selected topic and/or laboratory or field projects in biology. Supervision of the work is arranged by mutual consent between student and instructor. This course requires the student to present his/her results as a short seminar at the Biology Research Day, which is usually held during the study week preceding spring term finals exams.
Students must obtain a permission form from the Divisional Office (S-441A) that is to be completed and signed by the intended supervisor, and returned to the
MAJOR PROGRAMME IN CLASSICAL STUDIES

Supervisor: M.E. Irwin (T.B.A.)

The Major Programme in Classical Studies has been withdrawn. Every effort will be made to allow students who registered in this programme by September 1993 to complete it at this campus. Any student who wishes to take a course or courses in Classical Studies in 1993/94 is encouraged to see the Supervisor of Studies, Prof. E. Irwin, to discuss arrangements.

MINOR PROGRAMME IN CLASSICAL STUDIES

Supervisor: M.E. Irwin (T.B.A.)

The Minor Programme in Classical Studies offers a limited but coherent curriculum in Classical studies for students interested in studying the Greek and Roman world while pursuing a more wide-ranging course of studies in a number of related disciplines.

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

1. CLAS20Y Greek and Roman Mythology
2. CLAS20Y The Mediterranean World
3. CLAC21FS Selected Topics in Classical Literature and CLAC21FS Selected Topics in Classical Civilization
4. CLAC21FS Classics and the Computer
5. One additional half-course in CLA from CLAB41FS Freedom in the Making of Western Culture

CLAB42FS Army and Empire in the Roman World
CLAC41FS Slavery in the Roman Economy

CLAS20Y Greek and Roman Mythology

Telephone ID: 01030253

The emergence and treatment of myths and legends in the Greek and Roman world.

This course will examine the major myths and legends and their representation in classical literature, drama, and art, and will partly be concerned with ancient and modern theories of myth. This course will be useful to students engaged in literary and art-historical study and will serve as an introduction to other courses in classical civilization.

Exclusions: (HUMA11), CLA205

Session: Winter Day
M.E. Irwin
Ooffered: 1993/94

CLAC20Y The Mediterranean World

Telephone ID: 01030256

A survey of the civilizations which flourished around the Mediterranean Sea in ancient times.

The primary focus will be on the Roman Empire, a brief survey of the history of the Near East and Greece in the classical period (ca 600-200 B.C.) will serve in the historical context.

The course will begin by defining the Mediterranean region in relation to Africa, the Middle East and Europe. Students will then be introduced the distinctive natural environment of the Mediterranean Basin with emphasis on the natural processes shaping the societies which flourished there. A survey of near eastern and Greek history from early times until the rise of Rome will prepare students for a more extended study of the Roman Empire at its height (from Catus to Constantine). This course will make extensive use of literary sources (all read in English translation) and archaeological evidence.

Session: Winter Day
T.B.A.
Offered: 1993/94

CLAB10FS Greek and Latin for Scientists

Telephone ID: 00230153

An examination of the role of Greek and Latin in the formalization of technical terms in the science disciplines.

The course aims to provide the student who has no previous knowledge of classical Greek or Latin with the ability to determine the meaning of scientific words by analyzing their structure, to increase his or her familiarity with the principles of scientific word formation, and to help him or her develop sound scientific syntax. Topics will include: grammar, articles, prepositions, and of course, learning the alphabet.

Exclusion: (CLA111), CLAB125

Session: Winter Day
J.R. McDonald
Ooffered: 1993/94

CLAC20S Selected Topics in Classical Civilization

Telephone ID: 01030253

A detailed study of a theme in Classical Civilization; all courses will be read in English translation.

For 1993/94 this course will compare religion in the Greek and Roman world. We will study temples and cults at two Greek sites (Athens and Olympia) and two Roman sites (Rome and Pompeii). We will also compare the religious experience of Greeks and Romans in prayer, sacrifice and religious ritual, to see what expectations and assumptions lay behind their practices. We will explore differences between public religion and private piety, and between ancient religions and modern religions often introduced by foreigners. We will evaluate the relative importance of priests and priests' training, philosophers and religious figures in developing and modifying religious beliefs and attitudes.

Exclusions: (CLAB30), (CLAS21), (CLA115), CLA220, CLA231

Prerequisite: (CLA401) or WSTA101 Y or WSTA201 Y
Not offered: 1993/94

CLAC20F Selected Topics in Classical Literature

Telephone ID: 00230153

A detailed study of an author or a genre in Classical Literature in translation.

For 1993/94 this topic will be Greek and Roman Epic: Homer's Iliad and Odyssey, Virgil's Aeneid, and Statius' Thebaid. The course explores the development of literature in the Western world, developing first the nature of oral epic and its function in the Indo-European and then examining rhetoric and "rhetorical" epic as a self-conscious development in the tradition. This asks what are the qualities that give these poems their prominence, and whether the first traditions in the history of western literature are also the greatest. It concludes by asking whether epic is possible after Virgil and observing the influence these works have had on the development of other literatures.

Exclusions: (CLAS101), (CLAS302): CLA00, CLA215, CLA225, CLA302

Prerequisite: One of the above classes or in English or another language

Session: Winter Day
J.R. McDonald
Offered: 1993/94

CLAC20S Selected Topics in Classical Civilization

Telephone ID: 01030253

A detailed study of a theme in Classical Civilization; all courses will be read in English translation.

For 1993/94 this course will compare religion in the Greek and Roman world. We will study temples and cults at two Greek sites (Athens and Olympia) and two Roman sites (Rome and Pompeii). We will also compare the religious experience of Greeks and Romans in prayer, sacrifice and religious ritual, to see what expectations and assumptions lay behind their

CLA21FS Freedom in the Making of Western Culture

Exclusions: (CRSH111), (GRHC125), (GRHC126)

Prerequisite: (CLA20Y) or CLA205 or HSTA101 Y or HSTA201 Y

Not offered: 1993/94

Courses Not Offered in 1993/94

CLAB41FS Freedom in the Making of Western Culture

Exclusions: (CRSH111), (GRHC125), (GRHC126)

Prerequisite: (CLA20Y) or CLA205 or HSTA101 Y or HSTA201 Y

Not offered: 1993/94
Cognitive Science
(A.B.)

Faculty List
R. U. Rioux, M.A., Ph.D. (Chicago), Professor
G. Hinz, B.A., B.S., M.Sc (A.N.U.), U.B.C.C., Ph.D. (Brown), Professor
J. M. Kennedy, B.S., M.Sc. (Belfast), Ph.D. (Cornell), Professor
A. Hakia, A.B., M.A., Ph.D. (UCLA), Professor
D. M. MacLeod, B.A. (McGill), Ph.D. (Washington), Professor
W. E. Seager, M.A. (Alberta), Ph.D. (Toronto), Professor
M. C. Smith, B.A. (Toronto), Ph.D. (MIT), Professor
M. A. Schmuckler, B.A. (Glebe - Birmingham), Ph.D. (Cornell), Associate Professor
S. Sadovy, B.A. (Toronto), Ph.D. (York), Associate Professor
R. Smith, B.A. (Carleton), M.S., Ph.D. (Alberta), Associate Professor

Supervisor: J. M. Kennedy (287-7435)

Cognitive Science is the study of knowledge-how humans and other animals acquire, organize and store 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? How does the knowledge we already have affect our experience of the world? Is knowledge stored as visual images, words, or abstract propositions? How do we decide which pieces of information are relevant to a specific problem? 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? Researchers in philosophy and psychology, linguistics, and education (particularly in parochial schools), computer science and anthropology all use different methods to investigate these questions and have all provided part of the answers. The Cognitive Science Programmes (Specialists and Major) include courses from all these disciplines from the humanities and the sciences at both the theoretical and the practical level.

First-Year Students in Cognitive Science
LIN1A0Y, FIL1A0Y and PSYA1 are recommended in first year if intending to pursue a Specialist or Major Programme in Cognitive Science.

SPECIAL PROGRAMME IN COGNITIVE SCIENCE

Supervisor: J. M. Kennedy (287-7435)

NOTE: The Special Programme consists of 12.5 E.C.U. 4.9 of these are specified courses. Three and one-half are to be selected from four blocks: (1) Psychology, (2) Linguistics, (3) Philosophy, and (4) Cognitive courses. The recommended year for taking the specified courses is given in parentheses.

Specialist courses:

Nine full-course equivalents:
LIN1A0Y General Linguistics (Year 1)
PSYA1Y Fundamental Questions of Psychology (Year 1)
LIN0B0PS Practical Language Analysis: Phonology (Year 2)
LIN0B0SPS Psychological Research Methods: Language and Thought (Year 2)
PHL0B0PS Foundations of Cognitive Science (Year 2)
PSBY1PS Data Analysis in Psychology (Year 2)
PSBY1PS Perception and Cognition (Year 2)
PSBY1PS Memory and Cognition (Year 2)
LIN0B0SPS Practical Language Analysis: Morphology (Year 3)

Specialist courses for the Psychology, Linguistics, Philosophy and Cognitive courses are chosen from the following:

PSYB0SPS Sensation and Perception (Year 3)
PSYB0SPS Human Brain and Behaviour (Year 3)
PSYB0SPS Advanced Data Analysis (Year 3)
PSYB0SPS Developmental Psychology (Year 3)
PSYB0SPS Psychometric Methods (Year 3)
PSYB0SPS History of Psychology (Year 3)
PSYD0SPS Current Topics in Psychology (Year 3)
PSYD0SPS Memory and Cognition (Year 3)
NRC0B0PS Neurosciences I: Cell Neurobiology (Year 3)
NRC0B0PS Neurosciences II: Learning and Motivation (Year 3)
NRC0B0PS Progress in Neurosciences III: Sensory and Motor Systems (Year 3)
NRC0B0PS Neuropsychology (Year 3)
COG0B0PS Supervised Study in Cognitive Science (Year 3)

PHL0B1PS Theories of Mind (Year 3)
PSYB0SPS Cognition and Representation (Year 3)
PSYB0SPS Psycholinguistics (Year 3 or 4)
CSCA0A6S Introduction to Computer Programming
CSCA0A6S Introduction to Computer Science

CSCA0A6S

Note: Students may substitute (CSCA0A6S) for PSYB0SPS if they wish to satisfy Cognitive Science Programme requirements for Specified Courses. If this criterion is selected, PSYB0SPS may be used to satisfy Cognitive Science Programme requirements in the Psychology block.

1. Psychology /Neuroscience

The Cognitive Science Programme contains courses in the following areas: Sensation and Perception; Human Brain and Behaviour; Advanced Data Analysis; Developmental Psychology; Psychometric Methods; History of Psychology; Current Topics in Psychology; Memory and Cognition; Neurosciences I: Cell Neurobiology; Neurosciences II: Learning and Motivation; Progress in Neurosciences III: Sensory and Motor Systems; Neuropsychology; Supervised Study in Cognitive Science.

2. Linguistics

The Cognitive Science Programme contains courses in the following areas: Sentence of English; Phonetics; The Study of Speech Sounds; Phonology; Syntax; Semantics: The Study of Meaning; Developmental Psycholinguistics - Disorders of Speech and Language; Supervised Study in Cognitive Science.

3. Philosophy and Theoretical Psychology

The Cognitive Science Programme contains courses in the following areas: Introduction to Developmental Psychology; Introduction to Psychometric Methods; Psychology Laboratory; Psychology of Music; History of Psychology; Current Topics in Psychology; Memory and Cognition; Computational Models of Memory and Attention; Neuroscience I: Cell Neurobiology; Neuroscience II: Learning and Motivation; Progress in Neuroscience III: Sensory and Motor Systems; Neuropsychology; Supervised Study in Cognitive Science.

4. Cognitive Co-Ul
ter

The Cognitive Science Programme contains courses in the following areas: Linear Algebra I; Linear Algebra II; Discrete Mathematics for Computer Science; Computer Organization; Computer Applications - One-half course in Anthropology at the E-level or higher.

Note: It is expected that most students will take MAT1A0Y in their first year to fulfill their cognate course requirement.
**Co-operative Programmes**

Scarbrough Campus offers six co-operative programmes which combine academic study with work terms in areas related to the chosen field of specialization. The knowledge and skills required to compete in today's global economy is realized by putting classroom theory into a practical context. A broad-based curriculum is enriched with relevant, productive, paid employment.

Co-op programmes take four to five years to complete and lead to a Bachelor of Arts (B.A.) or Bachelor of Commerce (B.Com.) or Bachelor of Science (B.Sc.) degree with specialist certification. The number and length of work terms varies depending on the programme. Work terms are arranged by the co-op coordinator for the programme but must be taken by the student in competition with other applicants for the position.

The programmes offered are:
- Management (B.A.), Management & Economics (B.Com.), Arts Management, Computer Science, Physical Science, Environmental Science, and International Development Studies.

**Specialist (Co-op) Programmes** in Administration will be discontinued as of the 99-00 session. Students who have already been admitted and wish to remain in this programme instead of opting for one of the new Specialist (Co-op) Programmes in Management and Management & Economics may continue with the requirements specified in the 99-00 Calendar. Please refer to the Management section of the Calendar for further information on the Specialist (Co-op) Programmes in Management and Management & Economics.

**Specialist (Co-op) Programmes in Arts Management** is offered by the Visual and Performing Arts at Scarbrough. The programme integrates studies in Drama, Music, or Visual Art (Studio or Art History) with administrative courses in Management (Commerce), Economics, Political Science, Cultural Policy and Arts Management. Work experience is gained in galleries, museums, opera, theatre and dance companies, symphony orchestras, arts service organizations and government cultural agencies. For further information, contact the listing under Visual and Performing Arts (page 183).

**Computer Science**

Please refer to the Physical Sciences Scarbrough section of the calendar, page 112 for a list of programmes. Please refer to page 121 for programme and course outlines.
Admission to the Programme

Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or first-year university. The timing of work placements for students who receive transfer credit will depend upon the particular university course completed. When applying, applicants must indicate the special code for the Scarborough Campus programme on the Application for Admission to Ontario University. Once the University of Toronto is notified of the application, candidates are sent an additional co-op application form to complete. To be considered for the first round of selection, co-op applications must be received by the University no later than April 15. Therefore it is essential that the applicant apply to the University at least six weeks before this date.

Interviews and a letter of reference from a high school teacher or university instructor may be required.

Please refer to the individual calendar listings for each programme for detailed admission information.

Fee

Every student in a co-operative programme is required to pay additional fees as established by the University.

Economics (B.A.)

Faculty List

A. Berry, B.A. (Western), Ph.D. (Princeton), Professor
B. Burton, B.A. (Cambridge), Ph.D. (Harvard), Professor
M. Kraskovsky, B.A. (MIT), M. Phil., Ph.D. (York), Professor
M. Reiter, B.Com. (Toronto), M.A. (York), Ph.D. (Michigan), Associate Professor
I.C. Parker, B.A. (Manchester), M.A. (Toronto), Ph.D. (York), Associate Professor
C. Roderick, B.A. (Duke), M.A. (Toronto), Ph.D. (Toronto), Assistant Professor
W. Ryon, B.A. (Western Ontario), M.A. (Toronto), Associate Professor
H. Lloyd-Ellis, B.Sc. (Southampton), M.A., Ph.D. (Queen's), Assistant Professor
A.A. Payne, B.A. (Denison), M.A. (Cornell), Ph.D. (Princeton), Assistant Professor

The Economics curriculum offers a wide variety of theoretical and applied courses. The curriculum provides an excellent background for careers in business, government, and the professions. Many of the courses are not intended exclusively for specialists in the discipline but can be of value to students with very diverse interests.

In the first year, specialist students in Economics, Economics and Mathematics, Economics and Quantitative Methods, Management and Economics, and Management and Economic Theory should take ECON 102Y (the mathematical version of the introductory course). Although students entering the Specialist in Economics, the Specialist in Management and Economics, and the Specialist in Management and Economic Theory will normally take MAT22Y in combination with ECON 102Y, those specialists who are planning careers in Economics are encouraged to replace MAT22Y with ECON 102Y (the calculus version) and also to take more mathematics courses. Students who choose ECON 102Y (the non-calculus version) may be able to enter those specialist programs once they have completed calculus. Economics Majors and Specialists in Economics and History and in Economics and Political Science do not require calculus, so that students may take ECON 102Y in their first year of those specialties.

Specialists in economics have access to management courses, space permitting, after the admission of students who require these courses to complete their programmes. Economics specialists will be admitted by course instructors under the following conditions:

1. They have completed MGMT A22;
2. Their cumulative GPA is at or above the level required for admission to management programmes;
3. They have the co-op prerequisites or permission of instructor to forgo these prerequisites.

To arrange for admission to such courses, students should see the academic advisor of studies for economics.

Many courses in the Social Sciences complement courses in Economics so that the students are urged to read the Calendar and, with the help of the Supervisor of Studies, to plan their programmes of study carefully.

Limited Enrolment

All economics specialist and major programmes have limited enrolment. Students admitted to these programmes are guaranteed access to enough courses to complete their programmes. Remaining spaces in the courses are allocated to non-specialist students on the basis of economics grades. Enrolment in the economics minor programme is not limited. However, access to some courses, especially the E.L. requirement, is limited, so students in the minor programme may have to take these courses during the summer session.

Admission to programme

1. Direct admission from secondary school
   Those admitted directly to the Management and Economics stream must maintain a GPA of 2.0 or higher after completing 8 credits to remain in an economics programme.
2. Other students
   The Supervisor of Studies makes decisions on programme admission only twice per year, in May and August, based on programme requests received by the Registrar, on winter pre-registration instructions from the Registrar. Only transfer students are considered at other times. Students with more than 10 credits will not normally be admitted to the economics major.
3. Non-programme students
   However, non-programme students may still receive an economics major if they are able to complete the programme requirements. Non-programme students are warned that they will be admitted to B-level and C-level Economics courses only after programme students have registered for these courses and that some courses may thus be unavailable, or available only in the summer. The Supervisor of Studies will not approve programme exceptions for non-programme students.

First-Year Students in Economics Programmes

There are five programmes administered by Economics: three specialist programmes, a major programme, and a minor programme. The following indicates the courses a student planning to enter in each of these programmes should take, would be advised to take, or should consider taking in their first year of study.

Specialist Economists: ECOA20Y, MAT120Y or MAT122Y, [consider Economics course-++]
Specialist Economists & Mathematics: ECOA20Y & MAT122Y, [consider Mathematics course-++]
Specialist Economists & Political Sciences: ECOA20Y or ECOA20Y, [POLA51YFS recommended]
Major Economists: ECOA20Y or ECOA20Y [consider Humanities course-++]
**SPECIALIST PROGRAMME IN ECONOMICS**

**ECONOMY or ECONOMY**

**SPECIALIST PROGRAMME IN ECONOMICS AND MATHEMATICS**

**SPECIALIST PROGRAMME IN ECONOMICS AND POLITICAL SCIENCE**

**SPECIALIST PROGRAMME IN MANAGEMENT AND ECONOMIC THEORY**

**MAJOR PROGRAMME IN ECONOMICS**

**MINOR PROGRAMME IN ECONOMICS**
ECO406Y Introduction to Econometrics: A Mathematical Approach
Telephone ID #: 04101036
A study of economic theory and its applications to contemporary Canadian economic problems. Problems discussed include: unemployment, inflation, competition, monopoly. A mathematical approach to economic analysis is used in this course and it is intended primarily for students who plan to enter the various specialist programmes in Management and in Economics.
Exclusions: ECO406Y, ECO100
Prerequisite: DAC Calculus I & II (OAC or equivalent)
Corequisite: MATA26Y or MAT26Y
Session: Winter Day

ECON407Y Macroeconomic Theory and Policy
Telephone ID #: 04207964
The course examines both conventional economic perspectives as well as critiques of these perspectives. Some country case studies may be used in illustrating different approaches to development.
Exclusions: ECON520Y
Prerequisite: ECO404Y or ECO403Y
Session: Winter Day

ECON408Y Introduction to Economics
Telephone ID #: 04202663
Intermediate level developmental of the principles of microeconomic theory. Initially the primary emphasis is on static partia equilibrium analysis, but general equilibrium analysis is developed later in the course. The topics covered are: consumer theory, theory of production, theory of the firm, theories of competition, monopoly and oligopoly, factor prices and welfare economics. Class size is limited to 40 per section.
Exclusions: ECON404Y, ECON300, 206
Prerequisite: ECO402Y or ECO401Y
Session: Summer Evening, Winter Evening

ECON409Y Money: A Mathematical Approach
Telephone ID #: 04101041
Intermediate level developmental of the principles of microeconomic theory. This course will cover the same topics as ECON408Y, but will emphasize techniques involving calculus so as to make the theory clearer to students. Class size is limited to 40 per section.
Exclusions: ECON380Y or ECON200
Prerequisite: ECO402Y or ECO403Y
Session: Summer Evening, Winter Evening

ECON 410Y Quantitative Methods in Economics
Telephone ID #: 04320964
An introduction to probability, statistics, and regression analysis as used in economic analysis. Topics to be covered include: probability, special probability distributions, estimation, sampling theory, confidence intervals, hypothesis testing (parametric and nonparametric methods), ANOVA, simple and multiple regression. The course examines trends in the financial sector and provision of health care, and discusses some of the choices involved (primary health care versus curative care, private versus public provision, and issues of equity and efficiency). Case studies of different models of health care will be examined (for example, China, Canada, and others). Participants will also obtain experience of some practical tools of health policy analysis, such as cost-benefit and cost-effectiveness analysis.
Exclusions: ECON402Y or ECON403Y
Prerequisite: ECON404Y or ECO403Y
Session: Winter Day

ECON 411Y Macroeconomic Theory and Policy
Telephone ID #: 04207964
An introduction to statistics and regression analysis as used in economic analysis. The course will cover material similar to ECON408Y, but in somewhat less depth. Topics to be covered include: mean, standard deviation, special probability distributions (normal, binomial), confidence intervals, hypothesis testing (parametric and nonparametric), simple and multiple regression. There will be a number of computer assignments.
Limited enrollment: 80 per section.
Prerequisite: ECON407Y or ECON408Y  
Session: Winter Day

ECON 412Y International Health Policy Analysis
Telephone ID #: 081200433
A study of the effects of economic policies on health care systems, drawing on a basic understanding of the economics of health care systems.
Exclusions: ECON404Y
Prerequisite: ECON401Y
Session: Winter Day

ECON 413Y International Development
Telephone ID #: 081200433
An introduction to the major development problems, focusing on international economics and related economy factors.
Exclusions: ECON407Y, ECON408Y
Prerequisite: ECON404Y
Session: Winter Day

ECON 414Y Political Economy of World Trade
Telephone ID #: 081200433
Excludes: ECON404Y
Prerequisite: ECON404Y
Session: Winter Day
ECON085 Comparative Economic Systems
Telephone ID: # 04332832
A research-oriented course focused on the application of general systems theory to comparative analysis of alternative economic systems, capitalism, socialism, and other. Half of the course will focus on general theoretical systems models; the other half will focus on empirical studies of Russia, China and other systems.
Exclusion: ECO330
Prerequisite: ECO207Y or ECO207Y
Corequisite: ECO207Y
Session: Winter Day
L. Parker

ECCO01Y North American Economic History
Telephone ID: # 04332832
A survey of important themes in the economic history of Canada and the United States. A comparative approach is employed to develop such themes as the role of natural resource staples in industries, urbanization, and the relationship of the state to economic change in the two countries.
Exclusion: ECO221, ECO222, ECO305
Prerequisite: ECO207Y
Session: Winter Day

ECCO022Y European Economic History
Telephone ID: # 04332832
A study of the emergence of industrial society in Europe since the Middle Ages with some emphasis on the comparative experiences of Britain and other European countries and the growth of the nineteenth century world economy. Particular attention is paid to technical change, the expansion of markets, population growth, the economic effects of public policy, and the development of economic levels and the structure of the economy.
Exclusion: ECO101, 201, 425
Prerequisite: ECO207Y
Corequisite: ECO207Y
Session: Winter Evening

ECCO117Y Econometrics
Telephone ID: # 04331663
A formal development of multiple regression analysis. Some matrix algebra will be used. Application of statistical techniques in testing economic theory. The implications and treatment of special statistical problems that arise in estimating economic relationships. A research paper is required.
Exclusion: ECO322
Prerequisite: ECO208Y or ECO204Y or ECO204Y or [MAT264Y or MAT265Y or MATB41P or permission of the instructor]
Session: Winter Day
H. Hejtaj

ECCO131F Advanced Microeconomic Theory
Telephone ID: # 04332333
An upper level extension of the ideas studied in ECO303. The course covers the more sophisticated treatment of topics such as equilibrium, welfare economics, risk and uncertainty, strategic and repeated interactions, agency problems, and accounting and signaling problems.
Exclusion: ECO326
Prerequisite: ECO204Y or ECO208Y or [MAT264Y or MAT265Y]
Session: Winter Day
H. Lloyd-Elia

ECCO141F Advanced Macroeconomic Theory
Telephone ID: # 04331443
This course will review recent developments in macroeconomics, including neoclassical and Keynesian theories of inflation, unemployment and business cycles.
Exclusion: ECO325
Prerequisite: ECO204Y or ECO208Y or ECO208Y or [MAT264Y or MAT265Y]
Session: Winter Day
A. Payne

ECCO206 Economics of the Media
Telephone ID: # 04332025
An examination of the role and importance of communications media in the economy. Topics to be covered include: the challenges media pose for conventional economic theory, historical and contemporary issues in media development, and media research methods.
Prerequisite: ECO204Y or ECO208Y or ECO208Y or ECO204Y or ECO208Y
Session: Winter Day
M. Boleau

ECCO207Y Economics of the Public Sector: Taxation
Telephone ID: # 04332133
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: ECO326
Prerequisite: ECO204Y or ECO208Y
Session: Winter Day
A. Payne

ECCO225 Economics of the Public Sector: Expenditures
Telephone ID: # 04332525
A study of resource allocation in relation to the public sector, with emphasis on decision criteria for public expenditures.
Limited enrolment: 60
Exclusion: ECO326
Prerequisite: ECO208Y or ECO204Y
Session: Winter Day
A. Payne

ECCO227F Law and Economics
Telephone ID: # 04333753
A study of laws and legal institutions from an economic perspective. Includes the development of a positive theory of the law suggesting that laws frequently evolve as a device to maximize economic efficiency. The efficiency of a variety of legal institutions is examined.
Exclusion: ECO326
Prerequisite: ECO208Y or ECO204Y or ECO204Y or ECO208Y or ECO208Y
Session: Winter Day
M. Boleau

ECCO228F History of Economics I: Adam Smith to Karl Marx
Telephone ID: # 04332533
A study of the literature of classical political economy, especially the work of Adam Smith, Ricardo, J.S. Mill, and Marx. The emphasis will be on the economic relationships of the various parties involved in running a business: management, owners, workers, bankers, and the government.
Topics covered will include the role of organizations in marketplace, contractual theory, risk sharing, property rights, corporate financial structure and vertical integration.
Limited enrolment: 60
Exclusion: ECO326
Prerequisite: ECO208Y or ECO204Y
Session: Winter Day
H. Lloyd-Elia

ECCO419F Industrial Organization
Telephone ID: # 04341333
Telephone ID: # 04341333
The economics of the firm in a market environment. The aim is to study business behavior and market performance as influenced by concentration, entry barriers, product differentiation, diversification, research and development and international trade. There will be some limited use of calculus in the course.
Limited enrolment: 60
Exclusion: ECO326
Prerequisite: ECO208Y or ECO204Y
Session: Summer Evening (F), Winter Day (S)
H. Lloyd-Elia

ECCO446F Monetary Economics
Telephone ID: # 04334843
This course examines monetary theory and institutions focusing on the relationship among money, prices and economic activity. Topics include: money supply definitions and relevance, a detailed examination of the demand for and supply of money, the structure of interest rates, targets and instruments of monetary policy, the use of rules versus discretionary monetary policy.
Limited enrolment: 60
Exclusion: ECO3348
Prerequisite: ECO207Y or ECO208Y
Session: Winter Day
M. Boleau

ECCO449F Financial Economics
Telephone ID: # 04334953
This course is designed to introduce students to the theoretical underpinnings and practical applications of financial economics. Topics covered include: intertemporal choice, expected utility theory, the Capital Asset Pricing Model (CAPM), the cost of capital, the use of derivatives in portfolio management, market efficiency, the term structure of interest rates, and option pricing models. Students will acquire both a broad
Applications of the tools of microeconomics to various labor market issues. The topics covered will include: fertility and family formation; labor supply; labor demand; equilibrium in competitive and non-competitive markets; non-market approaches to the labor market; unemployment. Policy applications will include: income maintenance programmes; minimum wages; unemployment insurance benefits; poverty.

Limited enrolment: 60
Exclusion: EC0328
Prerequisite: ECO801Y or ECO804Y
Corequisite: ECO801Y or MGTB101Y
Session: Winter Day
M. Baker

An introduction to the theory and practice of negotiation in business. Almost all business relationships (for example, rela-
tionships among managers and relationships with suppliers and customers) require negotiation. This course provides the student with a set of analytical tools and techniques to use in different forums of negotiations, and an introduction to traditional and emerging procedures for resolving disputes if negotiations break down. To gain practical experience, students will participate in exercises which simulate negotiations.

Limited enrolment: 60
Exclusion: ECO804Y
Prerequisite: MGT102Y, MGT202F, MGT212Y
Session: Winter Evening

An overview of the industrial system and process in Canada. The course will introduce students to: industrial relations theory, the roles of unions and management, employment law, labour law, the impacts of collective bargaining on the economy and the firm, strikes and lockouts, grievance arbitration, collective bargaining in the public sector, occupational health and safety and workers' compensation, and the history of the Canadian industrial relations systems. Students will participate in collective bargaining simulations.

Limited enrolment: 60
Exclusion: ECO804Y
Prerequisite: ECO801Y or ECO804Y
Corequisite: MGT102Y
Session: Winter Day
M. Boileau

An introduction to the processes of growth and development in less developed countries and regions. Topics include the role of international trade and investment in developing countries, the problems of population growth and unemployment, inequalities in income distribution, the roles of agriculture and industry. Limited enrolment: 60
Exclusion: ECO804Y
Prerequisite: ECO801Y or ECO804Y
Session: Winter Day
A. Berry

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: ECO804Y
Prerequisite: ECO801Y
Session: Winter Day
H. Lloyd-Ellis

An outline of the standard theories of international trade: analysis of the factors on which a country's trade with other countries is based and the welfare implications of this trade; and empirical tests of these theories. Economic growth and international trade. The instruments and effects of trade policy (customs, quotas, non-tariff barriers); the theory of customs unions.

Limited enrolment: 60
Exclusion: ECO804Y
Prerequisite: ECO801Y or ECO804Y
Session: Winter Day
M. Brown

An introduction to the theory and practice of negotiation in business. Almost all business relationships (for example, rela-
tionships among managers and relationships with suppliers and customers) require negotiation. This course provides the student with a set of analytical tools and techniques to use in different forums of negotiations, and an introduction to traditional and emerging procedures for resolving disputes if negotiations break down. To gain practical experience, students will participate in exercises which simulate negotiations.

Limited enrolment: 60
Exclusion: ECO804Y
Prerequisite: MGT102Y, MGT202F, MGT212Y
Session: Winter Evening

MGT202F Business Negotiation
Telephone ID: 04335233

An introduction to the theory and practice of negotiation in business. Almost all business relationships (for example, rela-
tionships among managers and relationships with suppliers and customers) require negotiation. This course provides the student with a set of analytical tools and techniques to use in different forums of negotiations, and an introduction to traditional and emerging procedures for resolving disputes if negotiations break down. To gain practical experience, students will participate in exercises which simulate negotiations.

Limited enrolment: 60
Exclusion: ECO804Y
Prerequisite: MGT102Y, MGT202F, MGT212Y
Session: Winter Day
M. Boileau

An introduction to the theory and practice of negotiation in business. Almost all business relationships (for example, rela-
tionships among managers and relationships with suppliers and customers) require negotiation. This course provides the student with a set of analytical tools and techniques to use in different forums of negotiations, and an introduction to traditional and emerging procedures for resolving disputes if negotiations break down. To gain practical experience, students will participate in exercises which simulate negotiations.

Limited enrolment: 60
Exclusion: ECO804Y
Prerequisite: MGT102Y, MGT202F, MGT212Y
Session: Winter Day
M. Boileau
SPECIALIST PROGRAMME IN ENGLISH

Supervisor: D. Bennett (287-7139)

Ten full-course equivalents in English are required. They should be selected as follows:
1. ENGA11Y Introduction to Literary Study: The Twentieth Century
2. ENGA12H Writing Workshop for ENGA11Y
3. ENGB01Y Critical Thinking and Writing
4. ENGB02Y English Literature: Historical Survey
5. One of the B-Level Geographical Series (ENGB03Y, ENGB08Y, ENGB03Y)
6. One of the C-Level Historical Series (ENGB23Y, ENGB33Y, ENGB24Y)
7. One full-course equivalent at the D-level
8. 2.5 additional full-course equivalents, at least 2 of which must be at the C-level

MAJOR PROGRAMME IN ENGLISH

Supervisor: D. Bennett (287-7139)

Seven full-course equivalents in English are required. They should be selected as follows:
1. ENGA11Y Introduction to Literary Study: The Twentieth Century
2. ENGA12H Writing Workshop for ENGA11Y
3. ENGB01Y Critical Thinking and Writing
4. ENGB02Y English Literature: Historical Survey
5. 3.5 additional full-course equivalents, at least 2 of which must be at the C- or D-level

MINOR PROGRAMME IN ENGLISH LITERATURE

Supervisor: D. Bennett (287-7139)

Four full-course equivalents in English are required. They should be selected as follows:
1. ENGA11Y Introduction to Literary Study: The Twentieth Century
2. ENGA12H Writing Workshop for ENGA11Y
3. 2.5 additional full-course equivalents, at least 1 of which must be at the C-level

MINOR PROGRAMME IN ENGLISH LITERATURE AND CULTURE

Supervisor: D. Bennett (287-7139)

Four full-course equivalents in English are required. They should be selected as follows:
1. ENGA11Y Introduction to Literary Study: The Twentieth Century
2. ENGB02Y What is Culture?
3. 2 additional full-course equivalents, at least 1 of which must be at the C-level both of which must be approved by the Supervisor of Studies.

Pending approval of the Governing Council of the University

ENGA11Y Introduction to Literary Study: The Twentieth Century

Phone ID #: 05511163

An introduction to literary and cultural concerns in the twentieth century through the study of works written in English from the beginning of the century to the present day.

As an introduction to university-level critical reading and interpretation, this course will survey the writing of twentieth-century men and women from a range of backgrounds and nationalities. As well as looking closely at selected works from the last 100 years, we will consider questions such as: how do individual texts and writers fit into larger movements or make up an era? How does the literature of our century both reflect and help us come to terms with the complex realities of our world? What is the relationship between what we read and how we make sense of ourselves and others? Marks will be based on in-class writing assignments, quizzes, and exams. Students wishing to supplement this course with training in university-level essay writing for English and all students planning to continue the study of English should take ENGA12H while they are enrolled in ENGA11Y.

NOTE: Beginning with Winter 1999/2000, ENGA11Y and ENGA12H will be prerequisites for ENGB01Y. Students who have successfully completed ENGA11Y prior to Winter 1999/2000 will not need ENGA12H to gain admission to ENGB01Y.

Exclusion: ENGA01Y, ENGA02Y, ENGA140 Session, Winter Day, Winter Evening

Course co-ordinator: K. Thei
Offered: 1999/2000
ENGB2Y English Literature: Historical Survey
Telephone ID #: 0552963
A survey of English literature from the Medieval Age to the twentieth century, in the context of relevant intellectual, aesthetic, social, and political developments. This course provides a general introduction to the major periods of English literary history - the Medieval, Renaissance, Restoration, Eighteenth-Century, Romantic, Victorian, and Modern periods. Reading will be extensive, involving brief selections from approximately fifty writers. The primary text is The Norton Anthology of English Literature (sixth edition), Vols. 1 and 2. Further texts will be announced.
Note: This is exclusively a lecture and examination course. Students are advised to combine this course with English 203 in order to include group discussion, detailed textual study, and practice in essay writing in their study of English.
Exclusion: ENG3420, ENG202
Prerequisite: ENG111Y
Session: Winter Day
A. Fasimalil / A. Hephorn
Offered: 1999/2000

ENGB5Y What is Culture?
Telephone ID #: 0552063
A text-based exploration of the development and emergence of "culture" as a concept and as a field of study.
What is the relationship between culture and civilization? Culture has often been associated with society's artistic and imaginative expression, but can we discuss culture today without reference to science and technology? What does a group's culture tell us about its social and genetic organization and its attitudes towards race, class, gender, sexuality - the nation? How do we distinguish between mainstream culture and subcultures, between industrial and post-industrial culture, or between "high" culture and "low"? We will explore the ways in which new approaches to culture are redefining the nature of English literary studies. Drawing on a wide range of materials - including literary texts, film, video, advertisements, visual art, and hypertext - this course will offer cultural perspectives on such topics as contemporary media and communications, popular and commercial culture, music, technology, musical subcultures, and the history of the cinema.
Session: Winter Evening
R. Greenough
Offered: 1999/2000

ENGB2YT Canadian Literature in English: An Introduction
Telephone ID #: 0552063
An introduction to the study of English-Canadian fiction, drama, poetry, and criticism.
This study of Canadian literature in English examines a wide selection of Canadian writing from early times to the present but focuses on twentieth-century writing by such writers as Laurence, Davies, Atwood, L. Collin, Ondaatje, and Findlay. Close and critical reading of individual works will be balanced against large questions of the shaping influence of Canadian culture and nationalism.
Exclusion: ENG252
Session: Winter Day
T.B.A.

ENGB2Y Shakespeare
Telephone ID #: 05521063
A study of at least eleven plays by Shakespeare, both as unique works of art and as the larger contexts of his work as a Renaissance dramatist. A list of texts will be available in H-352A.
Exclusion: ENG220
Session: Winter Day
T.B.A.
Offered: 1999/2000

ENGB11Y The World of Play
Telephone ID #: 05521163
An exploration of a variety of dramatic forms with close attention to questions of the theatrical production of texts.
The course introduces students to a wide range of drama through the study of at least twelve plays, including Sophocles, Shakespeare, Schiller, Hebbel, O'Neill, Chekov, Bernard Shaw, and Golding. The plays will be studied in depth and viewed in the context of their theatrical production. The course will involve readings of a variety of dramatic forms with close attention to questions of the theatrical production of texts.
Exclusion: DRA100, ENG222
Session: Winter Day
K. Theil

ENGB22Y World Literature Written in English
Telephone ID #: 05522163
An introduction to English-language literature written in English by authors from Britain, Canada, and the United States.
World literature written in English whose origins lie beyond the borders of Britain, Canada, and the United States have many different cultural inheritances, have had different experiences of colonialism, and are often unique in each other. And yet the experiences of colonization, racism, integration into a capitalist world economy, and writing in English present them with similar challenges and similar questions. In particular, questions of identity, place, and cultural are often posed in these contemporary literatures, in terms both of differences and of similarities. Writing from these areas often presents the self as split between what it is and what it was, what it is and what others see it as; what it is and what it is called to be. We shall look at fiction, drama, and poetry to see how these images of doubling are used across racial, class, and generational lines, figured as masking, haunting, and possession. Texts will include works by such authors as Achebe, Soyinka, Gordimer, Ngugi, Eshiehota, Head, Coetzee, Okri, Moi, Machereta, Pugnet from Africa; Pasow, Lamming, Walcott, Narup, Harris, Beatonte, Good Goodman, Saseye, Kincaid from the West Indies; and Ran, Naxos, Denai, Baudelaire, Goldie, Doch, Sidikwa, Roy, Suni from South Asia.
Exclusions: (ENGB20, ENG221) ENG352Y
Session: Winter Day
N. see Kortmann

ENGB25Y The Canadian Short Story
Telephone ID #: 05522553
A study of the Canadian short story.
This course will examine the following writers of the Canadian short story, a form that has been vital to the Canadian literary imagination: Munro, Atwood, Laurence, and Callan. Exclusion: ENG215
Session: Winter Evening
T.B.A.

ENGB30Y Children's Literature
Telephone ID #: 05523163
An introduction to children's literature.
This course will provide an introduction to the literature of children's literature from the nineteenth century to the present within the history of social attitudes concerning children and in terms of such topics as authorial creativity, race, class, gender, behaviour, and nationhood. Texts that become altered as different generations read "classic" texts and as different critical approaches reinterpret children's literature.
Exclusion: ENG234
Session: Winter Evening
T.B.A.

ENGB320Y Detective Fiction
Telephone ID #: 05526563
A study of the evolution and forms of detective fiction.
We will examine the formal rules that govern detective fiction and that have made it a minority of mass media as well as a genre that has influenced literary narratives. In addition, we will consider the social contexts that have helped the detective genre become a popular fictional form that has cut across classes, cultures, and continents.
Exclusion: ENG236
Session: Winter Evening
T.B.A.

ENGB35Y Women and Literary Study
Telephone ID #: 0552963
A discussion of the work of women writers, and the history of women as students, teachers and writers of literature.
Through a variety of texts (novels, poetry, drama, essays), we will explore the traditions of women writers from the seventeenth-century to the present day. We will examine the ways in which gender has played a role in literary production, publication history, reception, and canons making. Readings will be taken from the work of such women as Austen, the Brontes, Chopin, Morrison, Munro, M. Shelley, Tan, Ishi, A. MacDonald, E.B. Browning, Plato, C. Rosetti, Rich, Woolf, and Woolf. Exclusion: ENG223
Session: Winter Evening
T.B.A.

ENGC32Y English Drama to 1642
Telephone ID #: 0553363
A survey of the English drama from the reigns of Henry VIII to the closing of public theatres in 1642.
The course will examine Tudor interlude, masque, miracle plays, farcical comedies, Sonnet and pre-Shakespearian tragedies, Elizabethan Romantic and Jacobean Comic Comedies, and the dark, social tragedies of the Stuart period.
Exclusion: ENG332
Prerequisites: (ENGB101Y & ENGB202Y) or (ENGB111Y or ENGB50Y) or one other full-course equivalent in English (or three full-course equivalents in a level-one of which must be in English)
Session: Winter Day
A. Fasimalil
ENG307Y The Rise of the Novel
Telephone ID #: 05533683
A study of the development of the English novel from its early stages through the Victorian period.
This course investigates the English novel from its inception through the end of the nineteenth century, as it comes to explore a wide range of social behaviour, including relationships between women and men, class structure, and the intricacies of human laws, customs and institutions. This course will consider how the novel has shaped the way in which people perceive their own and past times through analysis of the works of such writers as Defoe, Richardson, Fielding, Sterne, Austen, the Brontes, Thackeray, Eliot, Dickens, Carroll, and Hardy.
Students are advised to consult the instructor for specific titles and to read as many of these novels as possible before classes begin.
Exclusion: ENG317Y, ENG332Y, ENG334Y
Prerequisites: [ENG300Y & ENG301Y] or [ENG314Y] or [ENG305Y & one other full-course equivalent in English] or [three full-course equivalents at the B-level, one of which must be in English]
Session: Winter Day 7.T.A.

ENG407Y The Romantics
Telephone ID #: 05534203
A study of poetry and prose written between 1789-1832.
The course explores the turbulent period that saw the rise of the Romantic individualism and served as the gateway to modern consciousness. We will consider the works of writers such as Wordsworth, Coleridge, Byron, Percy Bysshe Shelley, Keats, Scott, Mary Shelley, and the Brontes.
Exclusion: ENG308Y
Prerequisite: [ENG300Y & ENG301Y] or [ENG305Y & one other full-course equivalent in English] or [three full-course equivalents at the B-level, one of which must be in English]
Session: Winter Day 7.T.A.

ENG207Y Early Twentieth-Century Fiction
Telephone ID #: 05535263
A study of at least twelve works chosen from novels, novellas, and collections of short stories.
The early twentieth century was a period of extraordinary innovation in fiction, as writers used new techniques to convey distinctly "modern" experiences. We will look at the way that various styles and forms - whether metropolitan, commercial, realistic, anti-Victorian, fantastic, and utopian - shaped modernism. This course will concern narratives that deal with gender, politics, and psychology. We will study works by such writers as James, Conrad, Joyce, Forster, Woolf, Lawrence, West, Woolf, Bowen, Faulkner, Durrell, Greene and Greene. Students are advised to consult the instructor and do some reading in advance.
Exclusion: ENG325Y
Prerequisites: [ENG300Y & ENG301Y] or [ENG305Y & one other full-course equivalent in English] or [three full-course equivalents at the B-level, one of which must be in English]
Session: Winter Day 7.T.A.

ENG307Y Independent Studies: Creative Writing
Telephone ID #: 05536663
A substantial project chosen by the student and supervised by one faculty member. It is the responsibility of the student to locate a supervisor. Admission by permission of the supervisor of studies and of the instructor. Enrolment in this course is limited to one or two students per year. For more details, contact the supervisor of studies.
Prerequisite: ENG304Y

ENG307Y The Immigrant Experience in Canada
Telephone ID #: 05537163
An examination of the creative literature written out of, and written about, the experience of immigrants.
We will compare the literatures produced by several ethnic communities in at least three nations - Canada, the United States, and Great Britain - in order to examine the nature of diaspora identity, national identity, and the creation and expression of加拿大. We will consider the themes of identity, language, religion, cultural tradition, education, and the relations of individual and community and of the individual to the larger society. We will also consider the social location of each text, as it deals with the larger social divide (such as those between black and white or between religious peoples and settlers) already characterized these societies. We will consider voices such as those of Conrad, Weibe, Ricci, Coppola, Roth, Singer, Richler, Mo, Hong Kingman, Chey, Tan, Garcia, Nasrul, Kinsella, Braid, Roditi, Okudream, Vassigh, and Mistry.
Prerequisite: [ENG300Y & ENG301Y] or [ENG305Y & one other full-course equivalent in English] or [three full-course equivalents at the B-level, one of which must be in English]
Session: Winter Day N. W. Kortmann

ENG400Y Literary Theory and Criticism
Telephone ID #: 05534033
An introduction to literary theory.
What do we mean when we speak of literature? Is literary theory just another kind of writing? How and why do literary canons form? How do we read literary texts? This course will look at selected works of critical theory and at related writers and ideas. Readings will be selected from the works of such writers as Plato, Aristotle, Horace, Longinus, Dryden, Pope, Johnson, Wolcott Gibbs, Woodworth, Coleridge, Shelley, Keats, Arnold, Wilde, Wood, T. S. Eliot, Leavis, Richards, Brooke and Fry.
Exclusion: ENG300Y or ENG301Y
Prerequisites: [ENG300Y & ENG301Y] or [one other full-course equivalent in English]
Session: Winter Evening 7.T.A.

ENG400Y Topics in Contemporary Literary Theory
Telephone ID #: 05540553
A study of selected topics in recent literary theory. The course may take as its focus one or more of the following movements: structuralism, post-structuralism, deconstruction, psychoanalytic literary theory, semiotics, feminist literary theory, theories of popular culture, new historicism, post-colonialism.
This year's topic: National Identity and Literature. At the end of the twentieth century, "national literature" is still the most appropriate way to approach literary study. National categories have constructed visions of distinct national identities that, at the end of the nineteenth century, seemed secure, but twentieth-century phenomena - such as internationalization, dispersion, global immigration, and internal (subnational) divisions - have challenged the very idea of nations. Definitions of national identity and the role it plays. This course will focus on the ways new theories of national and group identity have reshaped our concept of literature and our practices of reading.
We will consider work by such theorists as Said, Bhabha, Anderson, Heidegger, Young, Appiah, and Tiffins. Canadian literature will be emphasized and will serve as our case study.
Prerequisites: [ENG300Y & ENG301Y] or [one other full-course equivalent in English]
Session: Winter Evening 7.T.A.

ENG404F Canadian Writing at the Century's End
Telephone ID #: 05548433
A look at the impact of Canadian writing at the end of the twentieth century. This course will consider one or more of the following questions: What does a look at selected texts published in the last few years suggest has changed in Canadian literary themes and sensibility? What has been the effect of the latest changes on the canons and the idea of a culture based in pan-Canadian identity? Have there been marked changes in the themes and the style of immigrant writers, ethnic writers, and writers-in-exile affected these
Environmental Science | Fine Art | French

Environmental Science (B.A., B.ES) Please refer to the Physical Sciences/Sciences Baccalaureate section of the catalog, page 172 for a list of programmes. Please refer to PSS-Sciences Baccalaureate p/150 for programmes and course outlines.

Fine Art

French (B.A.)

Faculty List

L.E. Ducoque, B.A. (London), Ph.D. (Brown), Professor Emeritus
C. Bertrand-Jennings, L.H.L. (Paris), Ph.D. (Wayne State), Professor W.J. Bascomb, M.A. (Minotana), Ph.D. (Harvard), Associate Professor J.A. Curtiss, M.A., M.Phil. (Toronto), Associate Professor S. Merritt, M.A. (Toronto), Ph.D. (Strasbourg), Associate Professor F. Maguire-Martin, M.A. (Lydia), Ph.D. (Henderson), Senior Tutor

Discipline Representative: S. Mittler (287-1795)

Supervisor of Studies: J. Curtis (287-1796)

Supervisor of Study Elsewhere: C. Bertrand-Jennings (287-7151) - first term: J. Bascomb (287-7158) - second term Studies in French abroad for a wide range of interests: the enhancement of practical language skills, including translation, pronunciation and business French (B16, B18, B48, C09, C18); the study of how the language is structured (B25) and how it evolved and spread beyond the borders of France (C42); the development of approaches to the teaching of French (B30, C11); and the exploration of the rich literatures and cultures of French Canada, France and other parts of the francophone world.

The following programmes are offered at University of Toronto’s Sciences/Baccalaureate: A Minor Programme in French; a Minor Programme for francophone students; a Major in French with four streams (French Studies, International French Studies, French and Business, French and the Arts); a Joint Specialist Programme in Management, and the Specialist Programme: Education of Teachers in French. (The Specialist Programme in French, the Major Programme in French Language and Literatures and the Major Programme in French Languages are no longer offered. Students already enrolled in one of these programmes will be able to complete it; please consult the Supervisor of Studies for further information).

French studies normally begin with FREN1011, Language Practice I, which serves to consolidate previous knowledge, and is the prerequisite for more advanced courses in all areas. FREN101 is designed primarily for students with OAC French or equivalent competence. Those who have significant "immersion" or "enriched" high school experience, or who have native or near-native abilities in French, should consult the faculty member responsible for FREN101 or FREN10 about the appropriate entry course(s). Students without OAC French or equivalent are urged to obtain credit for FSL121Y (the equivalent of FREN101Y). Note that the Language Practice course A10, B10, and C10 must be taken in sequence. Normally, an A-level FREN course should not be taken at the same time as, or within a 6-level FREN course. Please do not hesitate to consult Programme Supervisors and other faculty members for further advice about course selection and programmes.

French Studies Elsewhere Programme offers ideal opportunities for students of French to earn academic credit while studying in another province or country. Further information for this programme and about Letters of Permission to Study at Other Universities in this calendar, and speak to our Supervisor of Study Elsewhere.

Students must consult the Supervisor of Studies about possible exceptions if they are planning on studying in French courses in the Faculty of Arts and Science (St. George or St. Hilda's campuses). Please do so may leave the student short a course for degrees. At and E courses and increase tuition fees.

Questions? Has the impending end of the century caused writers to treat millennial or apocalyptic themes? Has the end of this century differed in its effects from writing from the end of the nineteenth-century? Prerequisite: ENGBIOY & ENGBIOY & one further full-course equivalent in English.

Session: Winter Day

T.B.A.

ENGBIOY The Image of Home in North American Fiction Telephone ID: 0554855 An investigation of how one organizing concept and thematic symbol in selected texts by Canadian and American writers. This course will consider how focusing on home (one of the universal concepts around which narratives get organized) influences the way we read, and on what happens when we read such symbols within the contexts of culture and of gender. The following texts will be studied: Moodie, Roughting it in the Bush (selections); Howells, The Rise of Silas Lapham; Grove, Fruits of the Earth; James, The Spots of Pigeon, Cotton, The Professor's House; Rieu, As for Me and My House; Lawrence, A Bird in the House. Morrison, Beloved. It is recommended that students do some of the reading before beginning the course. Prerequisites: ENGBIOY & ENGBIOY & one further full-course equivalent in English or [(ENGBIOY or ENGBIOY) or ENGBIOY] & one C-level full-course equivalent in English]

Session: Winter Day

R. Brown

ENGBIOY The Scribblens Telephone ID: 0554863 A survey of the major writings of the short-lived but highly influential Scribblens Club (founded 1714). Although we sometimes picture eighteenth-century England as a society of formality, propriety, and powdered wigs, it was also the location of the rise of the literary profession (including journalism and the literary magazine) and of such lively wits, satirists, and writers of comic burlesque as Swift, Pope, and Gay, who came together to attack (under the guise of "Martin Scribblens") all manner of vice and folly. This course will explore the impact of these writers in texts such as: Gayle, The Fables; Swift, Gulliver's Travels; and干er, The Life and Death of an Ænter, and an Essay on Man and place

them in the context of such journalistic publications as those of Addison and Steele. Prerequisites: ENGBIOY & ENGBIOY & one further full-course equivalent in English or ENGBIOY & one C-level full-course equivalent in English]
Note that a few of our courses (see: FRE539, B53, B43, B64, B55 and B56) are conducted in English; with the exception of FRE539, readings and assignments for these courses are done in French by those who wish credit toward a French programme, and in English by those who wish general credit toward a degree.

**SPECIALIST PROGRAMME: EDUCATION OF TEACHERS IN FRENCH**

Le-ordinator: F. Magneur

This four-year programme is designed and offered jointly by the Division of Humanities, University of Toronto at Scarborough, and the Ontario Institute for Studies in Education / University of Toronto (OISE) in order to meet the need for teachers of French at all levels in the school system: primary/junior, junior/intermediate and intermediate/secon. It provides a comprehensive education for those intending to continue their studies at the Faculty of Education (OISE/U. of T.) as well as for anyone broadly interested in the teaching of French as a second language. Emphasizing both content and methodology, it includes academic courses in French and other subjects as well as practical placements. There are two kinds of practicum placements: (i) those that take place within the content of courses, FREED/119 and FRECED/119, and (ii) those, independent of courses, that take place in elementary and secondary schools during years 3 and 4.

Students are admitted to the programme on the basis of their overall performance in first year AND their performance in FREED/109 and FREED/119. Students who successfully complete this programme of studies and who meet the admission requirements of the Ontario Institute for Studies in Education / University of Toronto (OISE) will be admitted to that institute. Up to 20 students will be selected for this programme each year. Several bursaries are available for study in French Quebec.

Students in this Specialist Programme complete a total of 70.0 units of study, chosen from the two main categories below:

A. Ten full-course equivalents in French in addition to:

1. Three full-course equivalents consisting of: PREA410Y, PREB119Y and FRECED/119 (with substitution of other French courses is permitted for students with special proficiency in the French language).

2. Two full-course equivalents selected from the following: FREB115Y, FREB148Y, FREB242F, FREC3415F.

3. One full-course equivalent selected from the following: FREB327F, FREB327F, FREB328Y.

4. Three full-course equivalents in literature which must include: one full-course equivalent in French Canadian literature, one full-course equivalent in French literature (PREA505Y can fulfill this requirement); one full-course in French literature from another part of the French-speaking world excluding France and Canada. **NOTE:** French courses taught in English cannot count towards this requirement.

5. FREED/119 and FRECED/119.

(FREED/119 ideally should be taken in second year to avoid timetable conflicts which might arise as a result of trying to schedule the practicum component of the course.)

(All of these courses are described in detail below.)

B. Ten further full-course equivalents: Students are advised to choose courses to not the teaching programme and the teaching subjects in which they are interested. Information and advice will be available through the Programme Coordinator at Scarborough and through counseling at the Ontario Institute for Studies in Education/University of Toronto (OISE). The following are recommended as general preparation for the Ontario Institute for Studies in Education/University of Toronto (OISE), B.Ed. Programme: - a half-course in educational psychology - a half-course in language/aids to learning - a half-course to develop computer skills.

**Practicum requirements:**

All programme requirements are required, in years 3 and 4, 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 and learning methods. In association with the Ontario Institute for Studies in Education/University of Toronto, they will arrange these practicum placements in local elementary and secondary schools.

---

**MAJOR PROGRAMME IN FRENCH**

**Supervisor: J. Curtis**

The major programme in French provides a simple structure that students can readily customize to meet their needs. The Supervisor of Studies welcomes opportunities to help students tailor this flexible programme to match their strengths and goals. In addition, students are advised to consult the French Discipline Brochure for more details on the various aspects of the programme.

Students must complete seven full-course equivalents in French, including:

1. PREA10Y and PREB119Y (except where the Supervisor of Studies permits substitution of other FRE courses for students with special proficiency in the French language).

2. One further full-course equivalent in language:

   - **Language courses are:** FRED509F, FRED519F, FRED551F, FRED565F, FRED571F, FRED575F, FRED615F, FRED621F, FRED625F, FRED635F, FRED645F.

3. One full-course equivalent in literature and/or culture:


4. Three additional full-course equivalents in French.

   - Students may create a "classic" major in French Studies with a language and literature focus by including PREA405Y and one and one half other full-course equivalents in literature in their programme.

   - Those wanting a major with a business focus should include one full-course equivalent from (FRED509F, FRED519F, FRED551F, FRED565F, FRED571F, FRED575F, FRED615F, FRED621F, FRED625F, FRED635F) and two other full-course equivalents in French and/or Francophone studies: French Canadian and other Francophone cultures.

---

**MINOR PROGRAMME IN FRENCH**

**Supervisor: J. Curtis**

Students should complete four full-course equivalents including: PREB119Y, PREB148Y and two further full-course equivalents in French, excluding PREB391F, (FRED509F) and (FRED519F). At least one F.C.E. must be at the C-Level.

---

**MINOR PROGRAMME IN FRENCH FOR FRANCOPHONES**

**Supervisor: J. Curtis**

Students in this programme must complete and pass all of their courses at the B- and C-levels, excluding PREB119Y and PREB148Y. At least one F.C.E. must be at the C-Level.

---

**PREA50Y Language Practice I**

Telephone ID #: 06611063

Reinforcement and development of the language skills—speaking, reading, writing, listening—necessary for higher French courses.

The course consists of a grammar review with written and oral exercises, reading and discussion of a variety of texts representing different French cultures and whatever exercises class instructor may choose to devise. The class meets three times a week and, in addition, will do a fourth hour of speaking and listening with recorded materials. This course is prerequisite for all B-level French courses.
FRE 101Y Language Practice II
Telephone ID: *06621069*
A continuation of FRE 101A.
This course is concerned with the development of fluency, accuracy of expression, and style, through the study of grammar, composition, conversational practice, reading. Course work can be supplemented by audio and videotapes. Exclusion: (FRE 101B), native proficiency in French. FSL 21Y, FSL 21Z
Prerequisite: FRE 101Y (FRE 206) or equivalent
Session: Winter Day
F. Magnier and Staff

FRE 111H French Language Learning in the School System
Telephone ID: *06631143*
This course is offered by the Ontario Institute for Studies in Education at the University of Toronto in conjunction with the Division of Humanities, University of Toronto at Scarborough, and is intended for students considering a career in French language teaching. It involves a series of seminars conducted in French as well as preparation for practical work which will take place in local elementary and secondary schools throughout the duration of the course. Enrollment is limited to students already admitted to the Education of Teachers in French Programme. This course should ideally be taken in second year to avoid timetable conflicts which might arise as a result of trying to schedule the practicum component of the course. Exclusion: FRE 110Y (FRE 206) or equivalent
Prerequisite: FRE 110Y (FRE 206) or equivalent
Session: Winter Day
A. Bouchard
Offered: 1999/2000

FRE 117F Intermediate Conversation
Telephone ID: *06622735*
Intensive practice in the spoken language through contextualized situational oral work and discussion groups. Attention will be given to the comprehension of such major regional varieties as those found in the province of Quebec. As many opportunities as possible will be provided to practice the language and develop a students' appreciation of the culture which may include a reasonable degree of context, but not everyday life and contemporary topics. Exclusion: FSL 21Y
Prerequisite: FRE 101Y (FRE 206) or equivalent
Session: Winter Day
F. Magnier
Offered: 1999/2000

PRACTICAL TRANSLATION
Telephone ID: *06623383*
Texts from fields such as literature, business, politics, law, science and technology, art, and advertising will be translated, analyzed, and discussed in terms of type of language and style of expression. Class time is devoted to increasing the student's proficiency, based on the many types of differences between French and English.
Exclusion: PRT 470, PRT 480, PRT 481
Prerequisite: FRE 101Y (FRE 206) or equivalent
Session: Winter Day
F. Magnier
Offered: 1999/2000

FRE 202 Teaching Children's Literature in French
Telephone ID: *06632053*
This course is intended primarily, though not solely, for students considering a career in French language teaching, in particular to young people. This course will focus on a variety of children's texts including fairy tales urban and otherwise, cartoons and descriptive stories. Different pedagogical approaches will be introduced to the students. Exclusion: FRE 110Y, FRE 110Z
Prerequisite: FRE 101Y (FRE 206) or equivalent
Session: Winter Day
S. Mutier
Not offered: 1999/2000

FRE 220 FS The Society and Culture of French Canada
Telephone ID: *06622253*
Telephone ID: *06622253*
Telephone ID: *06622253*
Telephone ID: *06622253*
A study of the historical, social and cultural development of French Canadian society, from its origins to the present. Lectures will focus on factors which provide the necessary background for an understanding of contemporary French Canadian society. Special attention will be given to the "Revelation tranquille," the creative outburst of the 1960's and 1970's as well as issues relating to linguistic and cultural survival, including language policies. Exclusion: FRE 110Y (FRE 206) or equivalent
Prerequisite: FRE 101Y (FRE 206) or equivalent
Session: To be announced
T.R.
Offered: 1999/2000

FRE 230F The Literature of France
Telephone ID: *06623043*
In 1960
Telephone ID: *06623043*
Representative novels, plays and poetry to 1960. Exclusion: FRE 230F (FRE 206) or equivalent
Prerequisite: FRE 110Y (FRE 206) or equivalent
Session: Winter Day
C. Berdon-Jennings
Offered: 1999/2000

FRE 235 FS The Comic Tradition in France
Telephone ID: *06623535*
Exclusion: FRE 235FS (FRE 206)
Prerequisite: FRE 110Y (FRE 206)
Session: Winter Day
C. Berdon-Jennings
Offered: 1999/2000

French 63

FRE 383 The Literature of French Canada: 1500-1940
Telephone ID: *06623043*
French novels, plays and poetry to 1940. Exclusion: FRE 383 (FRE 206)
Prerequisite: FRE 110Y (FRE 206) or equivalent
Session: Winter Day
C. Berdon-Jennings
Offered: 1999/2000

FRE 450F The History of French
Telephone ID: *06623043*
In the French language from the age of Molière to the nineteenth century. Exclusion: FRE 450F (FRE 206)
Prerequisite: FRE 110Y (FRE 206)
Session: Winter Day
C. Berdon-Jennings
Offered: 1999/2000

FRE 450FS The Comic Tradition in France
Telephone ID: *06623535*
Exclusion: FRE 450FS (FRE 206)
Prerequisite: FRE 110Y (FRE 206)
Session: Winter Day
C. Berdon-Jennings
Offered: 1999/2000

commoda dell'arte; critical and sentimental currents in the eighteenth century; conditions of performance; and how the classics have been reinterpreted up to modern times. Readings include works by Molino, Mirville, Danton, and Piseau. 

Classes are conducted in English, and texts are available in translation. Students wishing credit toward a programme in French will be required to do the readings, paper(s), test(s) and a final examination in French. The recommended preparation for these students is FREA50Y (or FREN20S). The course may also count toward a programme in Drama.

Exclusions: FREA51Y, FREA32Y, FRE335 

Prerequisites: FREA10Y for students enrolled in a French programme or three full A-level courses for others or permission of the instructor. 

Session: Winter Day J. Carta 

Not offered: 1999/2000 

FREN205 The 20th-Century French Novel Telephone ID #: 0642005 

A study of representative French novels from 1900 to the present. Following a general historical and aesthetic introduction to the course, works by representative novelists will be studied in their own right and in relation to the society which produced them. Classes, which comprise both lectures and seminar-discussions, will be conducted in English. 

Exclusions: FREB49, FREB70, FREB367, FRE377 

Prerequisites: FREA10Y (B06) or equivalent 

Combinations: FREA50Y (A03/A04) or FREN20S or permission of the instructor. 

Session: Winter Day J. Carta 

Not offered: 1999/2000 

FREN48F Aspects of Folklore, Myth and the Fantastic in the French-speaking World Telephone ID #: 0668343 

A study of symbolism and the imagined/imaginative in France and the francophone world. 

The course will explore the lively imaginations and belief systems to be found in a broad selection of francophone communities. Myths and folk tales of North and West Africa, European, and other origins will be examined in relation to cultural interpretations of, for instance, life, death, family, femininity and maleness, wealth, happiness, innovation, the individual in society, and attraction to and fear of the miraculous or exotic. Lectures and discussions will be in English and class materials provided with subtitles. Students wishing credit in French programmes will be required to do the readings, paper(s), test(s) and a final examination in French. Exclusions: None 

Prerequisites: FREA10Y for students enrolled in French programmes or three full A-level courses or permission of the instructor. 

Combinations: None 

Session: Winter Evening S. Miller 

Not offered: 1999/2000 

FREN48S Famous French Works and Their Musical Adaptations 

Telephone ID #: 0662855 

A study of some important French literary works (plays, novels) and their musical or operatic counterparts. 

A number of today's commercial and/or artistic successes in the musical theatre - in particular, the Phantom of the Opera and Les Miserables - owe their origins to works of French literature. This course will focus on several French literary works (primarily from the 18th and 19th centuries) and examine how and why they inspired composers of operas and musicals. Works will probably include: Le Barbier de Seville (Barber of Seville), Manon, La Dame aux Camelias (La Traviata), Carmen, and Les Miserables. Lectures for the course (and accompanying discussions) will be conducted in English. Video-tapes of operas feature English subtitles. Students wishing credit in French programmes will be required to do (the readings, essay(s), test(s) and a final examination in French. Exclusions: None 

Prerequisites: FREA10Y for students enrolled in French programmes or three full A-level courses or permission of the instructor. 

Combinations: None 

Session: Winter Evening W. Miller 

Not offered: 1999/2000 

FRECO18F Exercise in Interpreting 

Telephone ID #: 0663055 

A course for students preparing to use both French and job for other contact-related purposes. 

Starting from the premise that second-language students use primary language as a reference point, small-group work in class will reflect the various situations (e.g. legal cases, social work, immigration, annual business meetings, professional conferences). The focus will be on retention, accuracy of expression, lexical resources/functional, cultural "reformulation" and speed of delivery. 

Exclusions: None 

Prerequisites: FREB179Y or permission of the instructor. 

Session: Winter Evening 

S. Miller 

Offered: 1999/2000 

FRECO205 Language Practice III 

Telephone ID #: 06631063 

The purpose of the course is to improve the students' written, listening and oral skills. 

The course will focus on acquiring the appropriate means of expression through practice in text summaries, compositions, error analysis, review of specific grammar points and discussion of recorded material, articles and films. 

Exclusions: FSLL320Y, FSLL335Y, FSLL46Y, FSLL483F, FSLL485Y, FRECO201Y, FRECO203Y, FRECO206Y 

Prerequisites: FRECO204Y or equivalent 

Session: Winter Day 

F. Mognier 

Offered: 1999/2000 

FRECO208 Translation for Business and Professional Needs 

Telephone ID #: 06631853 

A continuation of FRECO18, devoted to the study of the French language in a commercial, professional, and technical context. 

Through in-class practice in translation from French to English and English to French, students will have the opportunity to widen their knowledge of the vocabulary and function of the language and all aspects of technical translations. 

Class work is directed toward increasing the student's proficiency. Discussion will be based on class participation and a series of in-class tests. 

Exclusions: PTRA40, PTRA41 

Prerequisites: FRECO18 or equivalent 

Session: Winter Day S. Miller 

Not offered: 1999/2000 

FRECO242F General History of the French Language Telephone ID #: 06634233 

A study of the nature and patterns of change in the French language, from its origins to Modern French. 

This course will follow the chronologic development of French from its beginnings in Latin, and the influence of historical events and of contact with other languages. Attention will be given to social and regional variations in Modern French, and to the use of the language in many parts of the world beyond the borders of France. Exclusions: FREB429Y, FREB273 

Prerequisites: One B-level course in the group FREB1 (8-FREB8), except (FREB17) & (FREB18) or permission of the instructor. 

Session: Winter Day 

J. Carta 

Not offered 1999/2000 

FREDO5 FREDO10 FREDO20 FREDO30 FREDO60 FREDO70 FREDO105 FREDO101 Supervised Reading 

These courses offer the student an opportunity to carry out independent study of an advanced and intensive kind, under the direction of a faculty member. Students and instructor work out in consultation the course's objectives, content, bibliography and methods of approach. The material studied should bear a clear relation to the student's previous work, and in so far as practical, in content and/or concentration from topics offered in regular courses. Students applying to a faculty supervisor, students should be prepared to present a brief written statement of the topic they wish to explore. 

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 Disciplina Representative or Supervisor for guidance. 

Prerequisites: One B-level course in the group FREB1 (8-FREB8), except FREB17, FREB18. 

Session: Winter Day 

Offered every year.
spread of industrial capitalism, and environmental conservation, movements, and policies. Themes include: changes in human-environment relations, trends in environmental problems, the rise of environmental awareness, ideologies of preservation and conservation, environmental activism and organizations, environmental policy from the local to the international scale, problems of sustainable development. Two hours of lectures per week.

Exclusion: GGRB01, GGRB333
Prerequisite: SIEA01Y (GGRB049) and one other A-level course (SIEA01 is strongly recommended)
Session: Winter Day
M. Bunce

GGRB05F Urban Geography
Telephone ID: 060/950/53
This course will develop understanding of the geographic nature of urban systems and the internal spatial patterns and activities in cities. Particular emphasis is placed on the North American experience, although some examples will be drawn from other regions of the world. The course will explain the location and growth of cities; explore the internal organization of cities, especially with regard to residential, social and economic activities; and shed light on the major issues and problems facing contemporary urban society. Two hours of lectures per week.

Exclusion: GGR124
Session: Winter Day
E. Ralph

GGRB005 Planning in Canada
Telephone ID: 060/206/53
After reviewing the history of urban and regional planning in this course, students will have the opportunity to consider specific ideas, models of public choice, the role of the planner, the instruments of planning, tools for the analysis of planning, and planning in the context of the space economy. This course will provide an understanding of planning as a practical process, and it will familiarize students with the principal tools used in the field. Two hours of lectures per week.

Session: Winter Day
J. Miram

GGRB27 Location and Spatial Development
Telephone ID: 060/227/33
An articulation of competitive and locational theory to explain economic landscapes. Topics include Randian regionalism, sustainable development, equilibrium, geographic market areas and spatial pricing policies, location of a firm with mobile resources, and trade theory and regional specialization. Two hours of lectures per week.

Exclusion: GGR229
Prerequisite: IECA02
Session: Winter Day
J. Miram

GGRB045 Urban Residential Geography
Telephone ID: 060/504/53
Micro and macro phenomena on urban residential geography are presented in this course with an emphasis on North American cities. At the micro level, topics include the spatial distribution of householders and families as consumers of housing, and suppliers of labour and domestic production. At the macro level, topics include commuting, social ties, neighborhood environments, structure and segregation, changes in the social and physical structure of neighborhoods. In light of these the course will examine the changing role of land use planning and public policy. Two hours of lectures per week.

Prerequisite: University-level half-course in urban studies and one of GGRB05, GGRB56, GGRB77, POL560
Session: Winter Day
J. B.A

GGRB13F Urban Political Geography
Telephone ID: 060/511/53
This course examines a geographical approach to the politics of contemporary cities. Emphasis will be placed on North American cities, especially Canadian cities. Much of this course will involve an exploration of theoretical understandings of urban politics that structure and are used to legitimate particular urban political policies and practices. Topics will include the nature and organization of local government, the political powers of the property industry, big business, and community-based organizations. Throughout, emphasis will be placed on the various ways in which the geography of the cities and local government have shaped, and been shaped by, urban political activity. The course will employ urban political literature published in North America and Britain. Two hours of lectures per week.

Exclusion: GGR29, GGR339
Prerequisite: GGRB05
Session: Winter Day
J. Bunce

GGR118F Urban Transportation Policy Analysis
Telephone ID: 060/311/53
This course examines current problems in urban transportation planning using policy analysis. Topics include: the relationship between transportation and land use development; social cost-benefit analysis, evaluation of urban transportation impacts; impacts of transport projects on urban values; mass transit subsidies; and regulatory/legislation. The course examines insights gained from contemporary empirical research. Two hours of lectures per week.

Exclusion: GGR324
Prerequisite: University-level half-course in urban studies and one of GGRB05, GGRB77, POL560
Session: Winter Day
J. Miram

GGRB20F Issues in Rural Development
Telephone ID: 060/313/53
An examination of the special problems of rural areas in an urbanizing world and the associated development strategies. Particular attention will be paid to the underlying causes of rural poverty and disadvantage; to the role of rural economies in national development, and to the basic theories of rural development.

Prerequisite: One of GGRB05, GGRB77, IDS7801, IDS801, IDS805
Session: Winter Day
M. Bunce

GGRB29S Problems in Modern Agricultural Land Use
Telephone ID: 060/513/53
Examination of the land-use problems caused by rapid changes in modern agriculture. Emphasis will be placed on the impact of the rapid penetration of agriculture on the environmental, economic and social conditions of farmland in both developed and less developed countries and regions.

Prerequisite: GGRB101 or GGRB17, IDS7801, IDS805
Session: Winter Day
M. Bunce

GGRD10Y Supervised Research
A research project under the supervision of a member of faculty. Topics may be suggested by students or faculty, but in either case must be identified and approved by the intended supervisor in time to allow for possibility of field work in the summer prior to formal registration in the course. Progress on discussions with the supervisor are expected. Research may be based on library or archival investigations, field studies, laboratory experiments, the analysis of census or other published data, or some combination of these. Evaluation will be based on 1) an extended proposal or progress report submitted on or before October 31, value 20 percent of final grade; 2) a complete draft of the final report, submitted on or before February 24, value 20 percent of final grade; 3) a written report or dissertation of professional quality in its presentation, submitted on or before March 31, value 60 percent of final grade. The final report will be evaluated by at least two members of faculty and the student may be asked to defend it at an oral examination.

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

Prerequisite: [Any fifteen full-course equivalents including at least five equivalents in Geography]
Session: Winter Day
Staff

Courses Not Offered in 1998/99
GGRB07F Conservation
Prerequisite: One of GGRB01, GGRB17, IDS7813
Exclusion: IDS7801

GGRB31F Development and Planning of Metropolitan Regions
Prerequisite: One of GGRB05, GGRB06, GGRB27, or IDS803

GGRB32F The Greater Toronto Area
Prerequisite: GGRB05

GGRB41F Current Topics in Human Geography
Prerequisite: GGRB49A & one other lower-level course in Human Geography

GGRB49F Social Geography
Prerequisite: GGRB05 or another Social Science B-level course with permission of the instructor

German (BA)

No German courses are being offered on this campus. Students interested in pursuing this area of study should refer to courses offered in the Faculty of Arts & Science, University of Toronto (St. George Campus and Etobicoke Campus).
History (BA)

Faculty List
J.S. Moir, M.A., Ph.D. (Toronto), D.D. (Presb. College, Montreal), Professor Emeritus
E.W. Dowler, A.M., Ph.D. (London School of Economics), Professor Emeritus
M. Elkinin, B.A. (Toronto), B.Phil., D.Phil. (Chrm.), Associate Professor
M. Govers, M.A. (Poznan), Ph.D. (Toronto), Professor
I.R. Robertson, M.A. (McGill), Ph.D. (Toronto), Professor
L.J. Ahern, M.A. (McMaster) Ph.D (Yale), Associate Professor and Chair
W.M. Dick, M.A. (Edinburgh), Ph.D. (Toronto), Associate Professor
P. Iacovetta, M.A., Ph.D. (York, Canada), Associate Professor
A.N. Sismon, M.A., Ph.D. (Toronto), Associate Professor

Discipline Representative: E.W. Dowler

The study of history is intended to enhance our understanding of human society by examining the experiences of particular peoples and their societies in the past. Its findings depend upon the precise evaluation of specific evidence. History's concerns and goals are humanistic; its methods draw from all forms of scholarly endeavour. History courses, therefore, can play a part in a number of interdisciplinary programmes and can serve as an adjunct to courses in Politics, 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. HIS 1000 provides 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 (HIS 2000-09) provides a comprehensive foundation of knowledge in their particular areas. In upper-level courses students investigate more specific areas, periods, or problems. D-series courses are conducted in seminars. In them students make close and thorough studies of particular questions and present their findings in discussions and major essays. These are courses at all levels in the following areas and periods of history: Medieval Europe, Modern Europe, British, Canadian, America, the United States, Russia, Ancient Greece and Rome, Asia, Africa and Latin America.

**SPECIAL PROGRAMME IN HISTORY**

**Supervisor:** W.M. Dick (287-7144)

1. **Number of Courses:**
   Students must complete at least ten full-course equivalents in History. These ten must include HIS 1001Y (or HIS 1001T) and five upper-level full-course equivalents (C-J level courses on the Scarborough Campus, 3000-4900 level courses on the St. George Campus). At least one of the five must be at the D/J level course.

2. **Pre-1815 Course:**
   Of the at least two full-course equivalents must deal with the period prior to 1815.

3. **Areas of Study:**
   a. Students are also required to take courses in at least three different areas of history from the following groups:
   i. Canadian
   ii. American
   iii. Medieval
   iv. European
   v. African, Latin American, Asian
   vi. Ancient Greek and Roman
   b. Students must complete at least one course in Canadian History.

**MINOR PROGRAMME IN HISTORY**

**Supervisor:** W.M. Dick (287-7144)

Students must complete four full courses or the equivalent in History, of which at least one full-course (or two half courses) must be at the C/J level.

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

**HAS 203Y The Twentieth Century World**

Telephone ID #: 07510803

An introduction to world history from the age of imperialism to the modern day, emphasizing both the diversity and the commonality of the modern human experience.

**Major themes** will include: imperialism and decolonization, social and political organization, demography, technology and economic development, religion and morality, art and science, international relations and war.

**Exclusion:** HIS 1001

**Session:** Winter Day

**HAS 203Y History of the United States**

Telephone ID #: 07520363

Major themes from the Revolution to the present.

The course will focus on such topics as independence, political organization, political parties, territorial expansion, nationalism and sectionalism, reform movements, the slavery and civil rights question, the impact of industrialization, progressivism, and the United States as a world power.

**Exclusion:** HIS 271

**Session:** Winter Day

**HAS 304Y Canadian History**

Telephone ID #: 07520863

The history of Canada from the first European contacts to the present.

**Topics studied include:** exploration and settlement, the institutions and life of New France, the British Conquest and its results, consequences of the American Revolution, British settlement, Confederation and the constitutions, changing patterns of immigration, the impact of two world wars, the Great Depression of the 1930s, Americanization and regionalism, roots of the current crisis in relations between English-speaking and French-speaking Canada.

**Exclusion:** HIS 292, 291, 292, 293

**Session:** Winter Day

**F. Iacovetta**

**HAS 308Y Europe in the Middle Ages**

Telephone ID #: 07530803

A chronological survey of economic, political, religious, and social developments in Western Europe (excluding Britain) from the late Roman period to the fifteenth century.

The object of this course is to familiarize students with the foundations of Western society as they evolved in conjunction with the early settlement, colonization, and subsequent expansion of Europe. Particular attention is paid: (i) to the peculiar circumstances which determined national boundaries and which led to the division and conflict of the modern world; and (ii) to the origin and development of our own political, legal, educational and political institutions.

**Exclusion:** HIS 203, Pre-1815 credit

**Session:** Winter Day

**HAS 308Y Russia from the Sixteenth Century to the Present**

Telephone ID #: 07520763

The Russian people, state, and culture, with emphasis on the major social, institutional, and ideological changes from the rise of Moscow to the present.

**Recent possible readings have been selected from primary source materials so that students will become acquainted not only with the fact but the flavour of Russian history. Lectures and discussion.**

**Exclusions:** HIS 270, 0.5 Pre-1815 credit

**Session:** Winter Day

**E. W. Dowler**
HISC216 Slavery and the American South
Telephone ID: 0733353
An examination of Southern society and slavery from the colonial period to the Civil War.
Topics will include the origins and growth of slavery and the plantation, the economics of slavery, race relations, daily life under slavery and Southern political and social structure and ideas.
Exclusion: (HIS331)
Prerequisite: HIS303
American Area: Session: Winter Day
M. Wayne

HISC302 Twentieth-Century America
Telephone ID: 0733356
A logical study of the United States since the turn of the century.
A traditionally rural culture of individual opportunity and nationalization faces the problems created by urbanization, ethnicity, industrialization, and world power. The tensions created by the appearance of large-scale organization, by the expansion of governmental power, by demands for social justice, and by the changing role of the U.S. in world affairs are the themes of this course.
Exclusion: (HIS35) HIS372
Prerequisite: HIS303
American Area: Session: Winter Evening
W.M. Dick

HISC401 Immigration and Race Relations in Canadian History
Telephone ID: 0734335
The history of immigrants, immigration policy, and race relations in Canada from the European-Native contact period to the post-World War II era.
Organized partly chronologically and partly by themes, the lectures and reading material will introduce students both to the perspectives and methodologies of the field and to the diversity of the ethnic/racial experience in Canada. Immigrants' lives as pioneer farmers, mine workers, industrial workers, domestics, entrepreneurs, radicals, and as members of families are explored.
The course highlights the experience of particular groups in Canada's past peoples, the First Nations, West Coast Indians, continental Europeans, and American and West Indian Blacks.
Prerequisite: HIS304
Canadian Area: Session: Winter Day
F. Jacobson

HISC415 Popular Culture in Early Modern Europe
Telephone ID: 0733843
An investigation of mentality and society in Europe from the fifteenth to the eighteenth century. This course will explore the many areas of popular society, examining how people lived and especially what they believed. We will look at popular religious, folkloric, and witchcraft, in order to observe the interaction of the world views of different social strata. Two hours of lecture and one tutorial per week.
Exclusion: (HIS110) (HIS14)
Prerequisite: HIS303 or a B-level course in History.
0.5 Pre-1815 credit
European Area: Session: Summer Evening
J.L. Pearl

HISC406 Germany in the Nineteenth and Twentieth Centuries
Telephone ID: 0733763
A thematic treatment of German history from the end of the Holy Roman Empire to the present.
The course will concentrate on social, economic, and cultural interpretations of Germany's political experience. A set of readings from primary and secondary sources will be assigned, but extensive further reading is essential.
Exclusion: (HIS17) HIS317
Prerequisite: (HIS301) HIS303 or HIS406
European Area: Session: Winter Day
J.L. Pearl

HISC111 Crime and Punishment in Early Modern Europe 1500-1800
Telephone ID: 0734133
A seminar investigating concepts of law, power, law, and order, and the use of force in Early Modern Europe. In this seminar, students will examine how legal systems reflected their societies. Law courts and ecclesiastical courts (impressions) shall be studied. The use of torture, corporal, and capital punishment will be examined in the context of societies and their values.
Limited enrollment: 20
Prerequisite: (HIS301) HIS303 and one B- or C-level course in history; or two B- or C-level courses in European history or permission of the instructor.
0.5 Pre-1815 credit
European Area: Session: Winter Day
J.L. Pearl
HISD150 The Making of Modern Society
Telephone ID #: 07544603
A seminar in the international history of "ordinary people" from the late eighteenth century to the early twentieth century. The course discusses how politics, population pressure, and industrialization affected pre-industrial society, how early forms of social protest changed mass organization, how revolutionary ideas affected ordinary people, and how governments and "governing classes" responded to pressures from below. The course provides the opportunity for students to re-examine, on a comparative basis, the knowledge gained in other courses. Two-hour seminar. Limited enrollment: 15. Exclusions: (HISD15) HESC15
Prerequisites: (HESA01) HESA001 and two other courses in post-1815 history, either European or North American. American-European Areas
Session: Winter Day
W.M. Dick
HISD19S Welser Culture
Telephone ID #: 07541953
An examination of the social and political foundations of "medievalism", using the cultural forms of Germany between 1918 and 1933 as a model. Individual artists and thinkers will be considered, but the emphasis will nevertheless be on culture as a social manifestation. Seminar. Limited enrollment: 15. Exclusions: (HESC198) HESC198
Prerequisites: (HESA01) HESA003 and one B- level course in History, European Area
Session: Winter Day
M. Ekmann
HISD25Y Society and Politics in the Nineteenth-Century United States
Telephone ID #: 07543663
A topical examination of major social and political movements and developments in the United States during the 19th Century. A seminar course which will consider the major political movements, leaders, foreign ideas, third party and single issue movements, social reform, anti-slavery, race relations, women's movement, religion and cultural nationalism, immigration and hostility to immigrants. Limited Enrollment: 15. Exclusions: HESA003
Prerequisite: HISD093
American Area
Session: Winter Day
A.M. Steps
HISD465 Selected Topics in Canadian Women's History
Telephone ID #: 07544603
A seminar investigating the role, lives, and struggles of women in Canada from the time of initial European contacts with the First Peoples to the post-World War Two era. The course will highlight the changing position of women in Canadian society, the relations between men and women, and among women from different class, ethnic, and religious backgrounds, and the changing role of state policies on women and gender relations. Topics could include native women in the fur trade society, rural women, women and the law, sexuality and crime, middle-class women's roles in religion, reform, and politics, working class and radical women, and immigrant and minority women.
Limited enrollment: 15. Exclusions: Any course in Canadian History or HISD101Y or HISD101S
Canadian Area
Session: Winter Day
F. Inoueva
HISD495 History courses in Classical Studies (see Classical Studies for full descriptions of courses offered in 1998/99); all of the following CLA history courses are Pre-1915 credits and can be used to fulfill History Program requirements.
CLA105Y The Mediterranean World
J.H. Corbett
CLA125Y Freedom in the Making of American Culture
Prerequisite: CLA105Y or CLB505Y or (HESA01) HESA031Y
J.H. Corbett
CLA255Y/CLA256Y Army and Empire in the Roman World
Prerequisite: (CLA205Y) CLA205Y or HESA002Y or HESAO3Y
J.H. Corbett
CLA265Y Women in the Greek and Roman World
Prerequisite: (CLA205Y) or WSTA01Y
M.E. Irwin
CLA265C/CLA265D Slavery in the Roman Economy
Prerequisite: (CLA205Y) CLA205Y or (HESA03Y) HESA003Y
J.H. Corbett
CLA265Y The Black Experience in the United States since the Civil War
Exclusions: (HESC405Y) HESC405Y
Prerequisites: HESC003
CLA232Y Revolutionary America, 1760-1790
Exclusions: (HESC334)
HESC327Y, HESC328Y
Prerequisites: Any one of HESC003, HESC04 or HESC101Y
CLA245Y Atlantic Canada
Exclusions: (HESC485)
Prerequisites: HESC004
CLA275Y Black Nationalism, 1660-1919
Exclusions: (HESC484) HESC484
Prerequisites: HESC304
CLA295Y Canada Between the World Wars
Prerequisite: HESC304
CLA317B A Social History of Ethiopia
Exclusions: Any B-level history course or higher which considers Europe, Africa or Asia before the 20th century. HISD50Y is highly recommended. Or HISD50Y
CLA318Y The Crusades I
Exclusion: (HESC311)
HESC349Y
Prerequisite: (HSC100Y)
CLA319Y or any B-level course in European history
CLA400Y The Sixteenth Century
Religious Reformation
Exclusions: HESC305, HESC313 (HESC313)
Prerequisites: (HESC01) HESC010 or any course in the B-level course in European History
CLA425Y Colonial and Revolutionary America and the British Empire, 1667-1787
Exclusions: HESC405Y, HESC032Y, HESC405, HESC0332
Prerequisites: Any one of HESC003, HESC04 or HESC101Y
CLA434Y Revolutionary America, 1760-1790
Exclusions: (HESC34)
HESC327Y, HESC328Y
Prerequisites: Any one of HESC003, HESC04 or HESC004
CLA437B The Black Experience in the United States since the Civil War
Exclusions: HESC405Y
Prerequisites: HESC003
CLA446Y Atlantic Canada
Exclusions: (HESC485)
Prerequisites: HESC004
CLA475Y The Canadian Left, 1667 to the Present
Exclusions: (HESC47Y)
Prerequisites: HESC04
CLA485B Black Nationalism, 1660-1919
Exclusions: (HESC484)
Prerequisites: HESC304
CLA495Y Canada Between the World Wars
Prerequisite: HESC304
CLA517B A Social History of Ethiopia
Exclusions: Any B-level history course or higher which considers Europe, Africa or Asia before the 20th century. HISD50Y is highly recommended. Or HISD50Y

History / Humanities

HISC76Y/S Social History of Imperial Russia, 1700-1900
Exclusion: HISC304
HISC79Y/S Social History of Revolutionary Russia, 1900 to the Present
Prerequisite: HISC76Y/S
Prerequisite: HISC304
HISC217Y/S European Society and Culture in the Twentieth Century
Exclusions: (HESC717) HESC318, HESC412
Prerequisite: (HESC01) HESC001 and one B- or C-level course in History
HISC310Y/S Society and Politics in the Nineteenth-Century United States, 1790-1865
Exclusion: HISC035
Prerequisite: HISC032
HISC365Y/S The Crusades II
Exclusion: (HESC311)
HESC349Y
Prerequisite: (HESC312)
HESC366Y/Exclusion: (HESC312) HESC366Y
Prerequisite: HESC006
HESC475Y The Russian Enlightenment
Exclusions: (HESC47Y)
Prerequisite: HESC007
HESC686Y/Exclusion: (HESC62) HESC686Y
Prerequisite: HESC06
HESC687Y The Russian Revolution
Exclusions: (HESC62) HESC687Y
Prerequisite: HESC06
HESC688Y/Exclusion: (HESC62) HESC688Y
Prerequisite: HESC06
HESC689Y Revolutionary France, 1780-1800
Exclusion: (HESC64)
Prerequisite: (HESC01) HESC001 or any B-level course in European history

Humanities (BA)

Faculty List
P.R. Lebo, M.A., Ph.D. (Cornell), Professor Emeritus
C.V. Pommerantz, M.A., Ph.D. (Toronto), Professor Emeritus
I. Wardin, M.A. (Cantab), Professor Emeritus
W. H. Ohlemann, M.A., Ph.D. (Mass.), Professor Emeritus
R. J. Fisch, M.A., Ph.D. (Chicago), Professor
W.C. Ibbotson, M.A., Ph.D. (Toronto), Professor
R. Skrent, B.A., M.Lit. (Bristol), M.A., Ph.D. (Michigan) Professor
W.J. Backer, M.A. (Melbourne), B.A., Associate Professor
H. Ohlemann, A.M., Ph.D. (Stanford), Associate Professor
M.Q. Schoenberg, M.A., Ph.D. (Toronto), Associate Professor
The study of culture is largely the study of continuity, and it is this same continuity that gives us hope to impart to our students. We want them to acquire a habit of mind that looks for these continuities not only within the confines of their special field, but in all the manifestations of culture that surround them.

E.H. Gombrich

Civilization means something more than energy and will and creative power... How can I define it? Well, very shortly, a sense of permanence.

Kenneth Clark

As one of the College’s five academic Divisions, Humanities comprises several distinct disciplines, such as Visual and Performing Arts, Classical Studies, English, History, Philosophy and Languages. Each of them offers a range of courses in its own area and its own programmes of study. These are listed under the pertinent headings in the Calendar.

In addition, the Division offers, under the rubric HUM, courses which fall outside the purview of the traditional disciplines. These are concerned mainly with culture, civilization, and literature; and all have readings and interactions in English. These courses help establish an intellectual context in which staff and students can explore new approaches to learning and benefit from a more comparative and interdisciplinary approach to knowledge.

COLLEGE PROGRAMME IN THE

HUMANITIES

The College Programme in the Humanities has been withdrawn.

Every effort will be made to allow students who registered before September 1995 to complete it at this campus. Please consult with your Associate Chair in 2523 (387-7128).

HUMA10Y Prologue*

Telephone ID #: 07810163

Twenty books of central importance in Western civilization.

A comprehensive examination will be given at the completion of each group of ten books. There is a one-hour tutorial for each book. The examination will assess the student’s ability to relate the books in their own way, rather than to remember minute aspects of plot and character. At weekly informal sessions, the instructor will present aspects of each work through lectures or other media. Palt Term: The Bible (selections); Homer, The Odyssey; Sophocles, Oedipus at Colonus; Shakespeare, Henry VI, Shakespeare, Hamlet; Golding, Lord of the Flies; Dickens, Oliver Twist; Dostoevsky, Crime and Punishment; Balzac, Honore de,eteorie action and the creation of characters and themes, and an understanding of the social and historical contexts of the works.

HUMA10Y Current Approaches to the Academic Writing Process for Non-Native Speakers of English

Telephone ID #: 07811063

A study of the conventions of academic writing and dialects, together with intensive hands-on writing practice in a computer laboratory. Designed especially for learners of English as a second language, this course shows how principles of exposition and argumentation can be applied to students’ own writing in various disciplines. Emphasis is placed on both the process and product of writing, including the development of research skills using library resources.

Limited enrollments: 30

Pre-requisites: Permission of the instructor.

Screening interview required, normally by May 1 (Summer) August 1 (Winter). Call 387-7123 for further information.

Session: Winter Day, Summer Day T.B.A.

Offered every year

HUMA11Y Introduction to Canadian Culture and Society for Non-Native Speakers of English

Telephone ID #: 07811163

A seminar and lecture course designed to introduce students who speak English as a second language to a study of Canadian culture and society through guest lectures, primary sources, and, with an emphasis on multicultural writings. Topics include: literary and non-literary varieties of Canadian English; Canadian bilingualism; the new culture of technology; multiculturalism as an ideal and as a reality; equity issues. Evaluation is based on individual and team oral presentations, term papers, participation in class discussion, response to guest lectures, and ability to defend and refute arguments in speech and in writing.

Limited enrollments: 30

Pre-requisites: Permission of the instructor. Screening interview required, normally by May 1 (Summer) August 1 (Winter). Call 387-7123 for further details.

Session: Winter Day, Summer Evening T.B.A.

Offered every year

HUMB20Y Germany: The Last Hundred Years

Telephone ID #: 07824033

An introduction to the most pertinent aspects of Germany’s recent history and culture, beginning with the end of World War I and taking into account the effects of Nazism, World War II, and the division of Germany. The course also attempts to understand the forces and pressures which brought about the unification of Germany. In addition, to the material provided through lectures and test book readings, there will be readings and discussions of relevant contemporary literature and films.

Exclusion: (GERB200/F) (GERB2010)

Session: Winter Day

H 00105R

HUMB20Y From Reformation to Genocide: The Holocaust

Telephone ID #: 07826153

An introductory course on the Holocaust. The course is intended to provide students with comprehensive information about ideological pronouncements and events which led up to the Holocaust. We shall trace the persecution of the Jewish population in Germany beginning in 1933 and the European invasion after the onset of World War Two in 1939 and see it culminate with the “Final Solution” in the death camps in Eastern Europe. We shall make use of the accounts of witnesses, victims, perpetrators, and judges.

Exclusions: HIS399Y, H5544T, HIS446Y

Session: Winter Day

H 00105R

HUMB20Y Introduction to Cinema

Telephone ID #: 07827063

An introduction to the vocabulary of film criticism, major aesthetic approaches, and general history (silent and sound). Exclusion: NNI112, NEW112

Session: Winter Day

H 00105R

HUMB20Y Humanities Seminar

Telephone ID #: 07821053

A special half-course equivalent seminar course, taken normally after the completion of ten full-course equivalents. Each member of the seminar undertakes an individual project and gives a report on it. Topics for the seminars will be chosen in consultation with the Co-ordinator.

Exclusion: HUMB135 (HUMB102)

Pre-requisite: HUMB50 and nine other full-course equivalents.

Session: Winter Day

Co-ordinator: T.B.A.

HUMB20Y Supervised Readings

Independent study of an advanced and intensive kind, under the direction of a faculty member. The material studied should bear some significant relation to the student’s previous work, and should differ significantly in content and/or concentration from topics offered in other courses.

Students are advised that they must obtain consent from the supervising instructor before registering for these courses. The student should consult with the Co-ordinator, a statement of objectives and proposed content for the course, this should be done 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.

Exclusion: (HUMB201-CR)

Pre-requisite: Three B-level full-course equivalents in the Division of Humanities.

Session: Winter Day

Co-ordinator: T.B.A.

Courses Not Offered in 1999/99

HUMB35W German in Business Communication

Exclusions: HUMB50/1, HUMB59

Session: Winter Day

HUMB40Y Spanish Language and Literature

Session: Winter Day

HUMB40Y Introduction to German Culture

Session: Winter Day

HUMB40Y Perspectives in European Culture

Session: Winter Day

HUMB40Y Introduction to Literature

Session: Winter Day

HUMB40Y Introduction to Social Science

Session: Winter Day

HUMB40Y Introduction to United States Culture

Session: Winter Day

HUMB40Y Introduction to World Culture

Session: Winter Day

HUMB40Y Introduction to Women’s Studies

Session: Winter Day

HUMB40Y Introduction to World Literature

Session: Winter Day

HUMB40Y Introduction to History

Session: Winter Day

HUMB40Y Introduction to Comparative Literature

Session: Winter Day

HUMB40Y Introduction to Theatre and Performance

Session: Winter Day

HUMB40Y Introduction to Film

Session: Winter Day

HUMB40Y Introduction to Music

Session: Winter Day

HUMB40Y Introduction to Visual and Performing Arts

Session: Winter Day

HUMB40Y Introduction to Philosophy

Session: Winter Day

HUMB40Y Introduction to Psychology

Session: Winter Day

HUMB40Y Introduction to Environmental Studies

Session: Winter Day

HUMB40Y Introduction to Religion

Session: Winter Day

HUMB40Y Introduction to Gender Studies

Session: Winter Day

HUMB40Y Introduction to Communication Studies

Session: Winter Day

HUMB40Y Introduction to Media Studies

Session: Winter Day

HUMB40Y Introduction to Sociology

Session: Winter Day

HUMB40Y Introduction to International Studies

Session: Winter Day

HUMB40Y Introduction to Anthropology

Session: Winter Day

HUMB40Y Introduction to Urban Studies

Session: Winter Day

HUMB40Y Introduction to Public Policy

Session: Winter Day

HUMB40Y Introduction to Public Administration

Session: Winter Day

HUMB40Y Introduction to Political Science

Session: Winter Day

HUMB40Y Introduction to Political Economy

Session: Winter Day

HUMB40Y Introduction to Political Theory

Session: Winter Day

HUMB40Y Introduction to Economics

Session: Winter Day

HUMB40Y Introduction to Business Administration

Session: Winter Day

HUMB40Y Introduction to Business Law

Session: Winter Day

HUMB40Y Introduction to Business Finance

Session: Winter Day

HUMB40Y Introduction to Business Marketing

Session: Winter Day

HUMB40Y Introduction to Business Management

Session: Winter Day

HUMB40Y Introduction to Business Information Systems

Session: Winter Day

HUMB40Y Introduction to Business Ethics

Session: Winter Day
International Development Studies (B.A./B.Sc.)

THE SPECIALIST (CO-OPERATIVE) PROGRAMME IN INTERNATIONAL DEVELOPMENT STUDIES

Co-ordinator: J. Maxwell (267-7113)
Supervisor of Studies: Susan Horne (287-7109)

IDS Mission Statement

The Co-operative Programme in International Development Studies at University of Toronto at Scarborough, is a five year undergraduate programme 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 Programme 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 certificate 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 expertise and insights, to enhance awareness of developmental 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.

Admission to the Programme

Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or from first year university. The timing of work placements for students who receive transfer credits will depend upon the particular university courses completed. When applying, applicants must indicate the special code for this Scarborough Campus programme on the Application Form for Admission To An Ontario University. Once the University of Toronto is notified of the application, candidates are sent an additional Co-op application form to complete. In order to qualify for an interview in early May, applicants must ensure that their Co-op application is received by the University no later than April 1998.

Note that enrolment in the programme is limited. Interviews are held normally in May for students who pass the initial screening. Admissions are granted on the basis of the applicants' academic performance, background in relevant subjects, languages, skills, experiences or interest in international development studies and work, and a letter of reference from a high school teacher or university instructor.

Fees

Every student in a Co-operative programme is required to pay Co-op fees as established by the University.

Work Placement

This programme requires twenty courses (40 credits) over the course of approximately eight to twelve months during the third year. The work term will normally begin no sooner than the end of the third year and no later than the beginning of the fourth year of the Programme. Work placement opportunities are arranged by the Programme Co-ordinator in consultation with students. Some placements are won on a competitive basis. The majority of students obtain placements with Canadian employers - Canadian development agencies (NGO), research institutes or private sector consulting firms. The location of the placements will vary according to each student's area of interest, disciplinary and regional preferences and abilities, the availability of placement opportunities and the practicality and safety of placement work. Students who wish to carry out their placement in a developing country where there is no Canadian employer willing to bear the costs of the placement must carry out their placement in a developing country where there is no Canadian employer willing to bear the costs of the placement themselves.

Before the work term students must, in consultation with the Supervisor of Studies, develop a proposal for a research project. A critical or analytical paper on the research subject and if possible based on the work placement experience is then written during the final year of the Programme after students return from their placements. Performance on placements will be evaluated by the employer. Shortly after their return (typically in September or October of the final year) students must submit a detailed evaluation of their placement to the programme co-ordinator. All students will be asked to participate in a one day placement debriefing session with the IDS Administration.

Eligibility for Work Placements

To compete for work placements a student must have completed at least fourteen and one-half full-course equivalents including at least 10 from Core courses (Section A) and Advanced options (Section B). Of these 10, at least 7.5 must be from the core programme (Section A). These fourteen and one-half courses must also include the full-course equivalent in International and language options. After the work term, students enter their advanced study and enroll in IDS001Y (International Development Studies: Advanced Seminar) and other such courses as are necessary to complete their degrees.

Graduation Requirements

To maintain standing in the programme and to receive specialist certification upon graduation, a student must
- maintain a cumulative grade point average of 2.50
- receive satisfactory evaluations for work placement performance and the research paper
- be registered as a full-time student during study terms

All students must complete:
- a common core programme (at least eight and one-half full-course equivalents) in environment and social sciences
- an advanced option (at least three full-course equivalents) in either the social sciences, humanities or environmental studies (Section B, below)
- a regional language and culture option (Section C, below)
- IDS001Y, an advanced seminar related to their work placement experience (Section E, below)
- other elective courses (Section D, below)

Notes:

1. EACH COURSE MAY BE COUNTED ONLY ONCE IN SATISFYING WORK PLACEMENT AND PROGRAMME REQUIREMENTS.
2. IT IS THE STUDENT'S INDIVIDUAL RESPONSIBILITY TO ENSURE THAT HE/SHE HAS COMPLETED THE CORRECT COURSES TO MAKE HIM/HER ELIGIBLE FOR THE WORK TERM AND TO ENSURE THAT HE/SHE HAS CORRECTLY COMPLETED PROGRAMME AND DEGREE REQUIREMENTS FOR GRADUATION.

In the first two years of study students must complete as much of the common core programme and of language studies as possible. The core programme contains three courses specially designed for International Development students: IDS001S, International Development Studies, Political Economy; IDS002S, International Development and Environment, and IDS003S, Project Management. Students must choose their regional and language option (Section C) no later than year 2 and their advanced option (Section B), no later than the beginning of year 3. Students are also strongly advised to complete at least one full-course equivalent in core programme science courses each academic year prior to placement. In choosing courses students must pay careful attention to the prerequisites for higher level courses. Some courses in the programme are offered on other campuses of the university. Please note that course offerings on all the campuses will not be finalized until after this calendar has been printed. CHECK WITH SUPERVISOR OF STUDIES FOR COURSE AVAILABILITY.
Each student's programme requires the annual approval of the Supervisor of Studies. In addition, all course changes must be approved by the Supervisor of Studies.

The curriculum requirements are as follows:

**Core Programme:** at least eight and one-half full-course equivalents from the following:

(PLEASE NOTE THE COURSES ON ST. GEORGE CAMPUS ARE IDENTIFIED WITH *. ALSO NOTE THAT STUDENTS MUST COMPLY WITH REGULATIONS REGARDING REGISTERING IN COURSES ON OTHER CAMPUS.)

I. Required:
- ANTC109PS: Anthropological Perspectives on Development
- EIESA04S: Life on Earth: Introductory Biology for Environmental Scientists
- or
- BGYA01Y: Introductory Biology* Introduction to Economics; A Mathematical Approach
- or
- ECOA03Y: Introduction to Economics Introduction to Environmental Science
- EIESB04F: Principles of Hydrology +
- or
- *GCRS06H: Introduction to Hydrology +
- EIESB09S: Biotechnology: Environmental Implications
- EIESB0F: Soil Science
- IDSB01FS: International Development Studies: Political Economy
- IDSB02S: International Development Studies: Development and Environment
- IDSDC06Y: Project Management
- POLB30S: Remote Sensing and Geographic Information Systems
- or
- EIESC13F: Environmental Impact Assessment
- EIESC17F: Introductory Agroforestry

Students in the Social Science stream may choose any of the three courses designated with either + or *.

**NOTE:** Students interested in pursuing further Biology coursework are advised to select BGYA01Y.

II. One full-course equivalent from:
- POLB30Y: Comparative Politics of Political Development
- HISS01Y: The Emergence of the Third World

B. Advanced Options: at least three full-course equivalents chosen from either I or II below.

**NOTE:** Students who follow the Environmental stream will be recommended for a B.A. degree and those who follow the Social Sciences stream will be recommended for the B.A. degree.

I. Social Science Stream

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGYC25P</td>
<td>Field Course in Ecology</td>
</tr>
<tr>
<td>BGYC32S</td>
<td>Marine Biology</td>
</tr>
<tr>
<td>BGYC35E</td>
<td>Limnology</td>
</tr>
<tr>
<td>BGYC36P</td>
<td>Population Ecology</td>
</tr>
<tr>
<td>BGYC35S</td>
<td>Conservation Ecology</td>
</tr>
<tr>
<td>BGYC35R</td>
<td>Environmental Toxicology</td>
</tr>
<tr>
<td>*BOTA43H</td>
<td>Applied Ecology</td>
</tr>
</tbody>
</table>

II. Environmental Stream

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDSC06H</td>
<td>Directed Readings on Canadian Institutions and International Development</td>
</tr>
<tr>
<td>IN202Y</td>
<td>Canadian Environmental Issues</td>
</tr>
<tr>
<td>JN404H</td>
<td>Politics of the Environment</td>
</tr>
<tr>
<td>POLC38Y</td>
<td>The New International Agenda</td>
</tr>
<tr>
<td>POLC39Y</td>
<td>Political and Society in the Middle East</td>
</tr>
<tr>
<td>POLC40Y</td>
<td>Politics and Society in Latin America</td>
</tr>
<tr>
<td>POLC41Y</td>
<td>Government &amp; Politics in Africa</td>
</tr>
<tr>
<td>POLD04Y</td>
<td>Selected Topics on Development Areas</td>
</tr>
<tr>
<td>*POLA45Y</td>
<td>Canada and the Third World</td>
</tr>
<tr>
<td>SOCC01Y</td>
<td>Methods in Social Research</td>
</tr>
<tr>
<td>SOCC17FS</td>
<td>Social Change in the Third World</td>
</tr>
<tr>
<td>WSC18Y</td>
<td>Women and Development</td>
</tr>
</tbody>
</table>

One full-course in Statistics

If not taken as a required course.

C. Regional and Language Options: At least two full-course equivalents chosen from courses dealing with a designated development region. One of these full-course equivalents should be in a language appropriate for work in developing countries. Students with a functional knowledge of an appropriate language may substitute non-language regional courses. Students must obtain approval of their choice from the Supervisor of Studies.

D. Required:
- IDSD01Y: International Development Studies: Advanced Seminar
- and any five and one-half other full-course equivalents which satisfy the degree requirements.

Students should also be aware of certain courses at other universities which may, with the approval of the Supervisor of Studies and the approval of the host university, be taken for programme credit.

**MAJOR PROGRAMME IN INTERNATIONAL DEVELOPMENT STUDIES**

Supervisor: S. Homan (370-7009)

Students must complete eight full-course equivalents for the Major Programme in International Development Studies. This includes all courses in Section I and four and a half courses from Section II. In Section II students must take one full-course equivalent from at least two of the three lists of courses provided. In choosing courses, students must give careful attention to the prerequisites for higher level courses.
POLAS15  Critical Issues of Canadian Democracy

SOCAS07  Introduction to Sociology

ANTAD02  Anthropology

Second Year:

POLB11Y  Comparative Politics of Development

IDSB007S  Political Economy

POLB07Y  Social and Cultural Anthropology

SOCB02Y  Methods in Social Research

ECOB09Y  Economics

ANTB02Y  African Cultures and Societies I Survey

Third Year:

POLC90Y  Politics and Society in Latin America

IDSC049S  Project Management

IDSC059S  Ethics of Development

ECOC066F  Economic Development

POLB07Y  Development Policy

SOCIIT7F  Social Change in the Third World

POLD04Y  Selected Topics on Developing Areas

Policies of Corruption and Violence

THE INTERFACULTY SPECIALIST PROGRAMME IN INTERNATIONAL DEVELOPMENT AND ENVIRONMENTAL STUDIES

Supervisor of Students: S. Martin (287-7109)

This is an Interfaculty programme for students wishing to pursue the Specialist (Co-op) Programme in International Development Studies in conjunction with a Major in Environmental Studies, or a Specialist or Major Programme in Environmental Studies in conjunction with a Major in International Development Studies. Students registered in the Specialist Programme in International Development Studies at the University of Toronto at Scarborough may choose to complete the requirements for a Major in Environmental Studies offered by Trent College, or students registered in the Specialist or Major Programme in Environmental Studies at Trent College may choose to complete the requirements for a Major in International Development Studies offered by the University of Toronto at Scarborough.

Admission to the programme:

This is a limited enrollment programme. Students already registered in the Specialist (Co-op) Programme in International Development Studies may apply for the Interfaculty Programme.
Programme Requirements
Students registered at the University of Toronto at Scarborough who wish to complete the Interdisciplinary programme, must complete all the requirements for the Specialist (Co-op) Program in International Development Studies. In addition they must fulfill the following 6 F.C.E. requirements:

**EESA01SF and IDSD025S (required also for Specialist in IDS)**

**IN420Y: Environmental Policy Development and Decision Making**

**IN420Y:** Canadian Environmental Issues
One and one-half F.C.E. from one of the following 3 options:

**IN311H and one F.C.E.** from the following 3 options:

**IN3259Y:** Environment and the Environment

**IN404H:** Practical Environmental Skills

**IN420Y:** Environmental Research Seminar

**IN421H:** Public Policy and Environment

**IN422H:** Environmental Law

**IN491V:** Interdisciplinary Environmental Studies Project

**IN492H:** Interdisciplinary Environmental Studies Project

**IN493H:** Interdisciplinary Environmental Studies

**IN494H:** Politics of the Environment

**IN495H:** Economics and Environment

**IN497Y:** Special Topics in Environmental Studies

**IN498H:** Special Topics in Environmental Studies

**IN499H:** Special Topics in Environmental Studies

**JEB140H:** Interdisciplinary Environmental Studies

**PHE273H:** Environmental Ethics

**PHE373H:** Issues in Environmental Ethics

**RLG228H:** Religious Ethics: The Environment

**ON404H:** Practical Environmental Skills

**ON404Y:** Professional Experience Course

**OJB140H:** Environmental Research Skills

**IN420Y:** Environmental Research Seminar

**One of:**

**IN421H:** Public Policy and Environment

**IN422H:** Environmental Law

**IN494H:** Politics of the Environment

**IN495H:** Economics and Environmental Issues

**EESCO15S:** Environmental Economics and Law

**One F.C.E.** from among the following groups (one course listed under each of these groups in the Faculty of Arts & Science St. George Campus 1997/98 Calendar under Lens Colleges, Environmental Studies Program):

Group A: Social Sciences

Group B: Life and Physical Sciences

Group D: INI and Humanities

**NOTE:** These courses may also count as advanced options in the IDS Social Science Stream.

**NOTE:** Students choosing this option are strongly recommended to take at least one-half F.C.E. from among the INI courses listed.

**NOTE:** Students may substitute equivalent courses given at the University of Toronto at Scarborough, but must obtain the permission of the Supervisor.

**EESA015S Introduction to Environmental Science**

Refer to Environmental Science for description.

**IDSD025S International Development Studies: Development and Environment**

**Telephone ID #: 081.202.53**

An introduction to the environmental components of development activities, with emphasis on tropical countries. Changing environmental conditions are explored on a number of specific contexts: urban, rural, disaster, semi-arid, wetland and mountainous systems. Environmental constraints on development have been significant in almost all regions, but increasingly, it is the influence of development on the global environment which are of concern. These include: species extinction, loss of agricultural productivity, decline of water quality, decreased access to energy and climate change. In addition, as settlement of marginal lands continues, human welfare is more and more threatened by "natural" hazards, such as earthquakes, floods, droughts and events such as El Niño. Prerequisite: EESA015S Session: Winter Day

**IDDP045 International Health Policy Analysis**

**Telephone ID #: 081.204.53**

Introduces health policy analysis in developing countries, drawing comparisons to the industrialized countries. The course examines trends in the financing and provision of health care, and discusses some of the choices involved (primary health care versus curative care, private versus public provision, and the division of equity and efficiency). Case studies of different components of health care will be introduced (for example: China, Canada). Participants will also obtain experience of some practical tools of health policy analysis, such as cost-benefit and cost-effectiveness analyses. This course can be counted as an economics course for economics program or Prerequisite: ECOB040Y or ECOA040Y Session: Winter Day

**ISDO-003H International Development Studies Co-Op Work Placement Term**

The IDS work placement component 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. Projects are placed as apprentice interns with Canadian or local development agencies or universities in a developing country for a 10-12 month period. Students are required to submit program 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 12.00 core plus language and regional option) credits and maintain a 2.0 GPA. The IDS work placement normally begins after the third year of study and requires a minimum of 2 years of residence in the programme. Course credit of 0.5 full-course equivalent is granted for each four month work period. Work term credits are in addition to the 30 full-course degree requirement and are granted on a Credit, No Credit system.

There are no additional course fees for work terms.

**IDSO045 Project Management**

**Telephone ID #: 081.504.33**

A study of the phases of the project management cycle with emphasis on situational analysis and identification of needs, project implementation, project monitoring and evaluation.

Project management will be considered in the context of the mission and programme activities of international development agencies. Students will be familiarized with basic organizational development theory and the various approaches of Canadian NGOs and Governmental Organizations (NGOs) engaged in the delivery of development assistance. The integration of gender and development and environmental issues into project process will be discussed. CIDA's policies and practices governing project administration will also be examined. Students will carry out field visits to local development NGOs to observe the project approach used by the agency. Practicing professionals will also be invited to talk about development issues and project management.

Exclusion: (IDSO045) Prerequisite: EIDSO015S & IDSD025S & permission of the instructor.

**ISDO045 Ethics of Development**

**Telephone ID #: 081.305.33**

An examination of the ethical foundations of the politics of development, particularly the ethics of aid and intervention. The course will consider the ethical dimensions and implications of the dominant modes of development including the policies and practices of major agencies.
Language Studies

(B.A.)

Students interested in language studies should consult entries under French, Spanish and Linguistics.

Specialist Programme in Management and English
Registration in this Programme is limited. Please refer to the Management section of the Calendar for details.

The Management and Economics and Linguistics programmes have cooperated to develop a joint programme in Management and French. The Management requirement for any of these programmes is the first five requirements for the Specialist in Management.

Language requirements consist of five full-course equivalents as follows:

French
A. FREN110, FREN120, one full-course equivalent from FREN201, FREN202, FREN301, FREN302
B. At least one full-course equivalent from FREN304, FREN315
C. At least one half-course from FREN302, FREN303, FREN307, FREN308
D. An additional half-course in French

Major Programmes
See entries under French for the Major Programme in French.

Minor Programmes
See entries under French for the Minor Programme in French.

Linguistics

(B.A.)

Faculty List
R.J. Brinton, M.A., Ph.D. (Chicago), Professor
D.M. James, M.A. (Cornell), Ph.D. (Michigan), Associate Professor
R. Smyth, B.A. (Claremont), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor
J.D. Woods, B.A. (Bowdoin Coll.), Ph.D. (Mass.), Associate Professor

Discipline Representative: D. James (287-7170)

Linguistics is the scientific study of human language. It encompasses theories of linguistic structure in all domains: speech sounds (phonetics and phonology), words (morphology), sentences (syntax), meaning (semantics), and texts or conversations (discourse). Subfields of linguistics include sociolinguistics (language variation according to region, gender, class, etc.); as well as the social functions of language; psycholinguistics (language acquisition and processing, and their disorders); historical linguistics (how languages change across time and space); and applied linguistics (e.g., second language learning, translation, clinical linguistics).

The Major Programme in Linguistics is designed to help students prepare for entry into professional programmes in areas with a significant language component, such as speech-language pathology, education, and language teaching. In many cases, a combined Major in Linguistics and another discipline (e.g., Psychology, Cognitive Science, Computer Science, or a Language) will provide the best preparation. However, students whose interests lie in the area of theoretical linguistics, and who wish to complete a Specialist degree after their Scourbonough Major programme (e.g. on the St. George campus), should consult with the Supervisor of Studies in order to select courses that can be applied toward a Specialist degree elsewhere.

SPECIALIST PROGRAMME IN LINGUISTICS

Supervisor: D. James (287-7170)
The Specialist Programme in Linguistics is no longer offered. Students already registered to the programme will be allowed to complete it; please consult the Supervisor of Studies to make appropriate arrangements.
and social attitudes towards them; how languages change; how children learn language; language and the brain.
Exclusion: LIN50Y
Session: Winter Day, Summer Evening
R.I. Birstuck (W)
Offered every year

LIN60GF Practical Language Analysis: Phonology
Telephone ID #: 2002453
Analysis of sound patterns in a broad variety of languages.
The aim of the course is to expand students' knowledge of phonology and to strengthen their abilities in practical analysis. Potential solutions to problem sets will be discussed in each class.
Exclusion: (LIN60Y, LIN299H)
Prerequisite: LIN10Y
Session: Winter Day
J.D. Woods
Offered every year

LIN60GF Practical Language Analysis: Morphology
Telephone ID #: 2002553
Analysis of word structure in a broad variety of languages.
The aim of the course is to expand students' knowledge of morphology and to strengthen their abilities in practical analysis. Potential solutions to problem sets will be discussed in each class.
Exclusion: (LIN60Y, LIN299H)
Prerequisite: LIN10Y
Session: Winter Day
D.M. James
Offered every year

LIN60GS Practical Language Analysis: Syntax
Telephone ID #: 2002653
Analysis of sentence structure in a broad variety of languages.
The aim of the course is to expand students' knowledge of syntax and to strengthen their abilities in practical analysis. Potential solutions to problem sets will be discussed in each class.
Exclusion: (LIN60Y, LIN299H)
Prerequisite: LIN10Y
Session: Winter Day
D.M. James
Offered every year

LIN60SF Phonetics: The Study of Speech Sounds
Telephone ID #: 2002933
The physiological and acoustic bases of speech.
An examination of the means by which speech sounds are produced, and of the physical properties of these sounds. Emphasis will be placed on such practical considerations as phonetic transcription. We will discuss material from the prescribed readings and problems which are to be solved.
Exclusion: LIN228
Prerequisite: LIN40Y
Session: Winter Day
J.D. Woods
Normally offered every other year

LIN60SF Sociolinguistics
Telephone ID #: 20022233
The study of the relationship between language and society, with the goal of understanding language form and structure through its social functions.
Topics include: speech varieties within a language and their social determinants; e.g., regional dialects, social dialects, speech styles, and age-based registers; the role of speech varieties as symbols of group affiliation; the social origins of linguistic change; attitudes towards linguistic varieties and the social consequences of such attitudes.
Exclusion: JAL124H
Prerequisite: LIN40Y
D.M. James
Nominally offered every other year

LIN60SS Second Language Learning
Telephone ID #: 20022553
The stages adults and children go through as they learn a second or subsequent language.
The course examines theories of the linguistic, cognitive, neurogenic, and social, and personality variables that affect second language acquisition. Implications for second language teaching are also discussed.
Prerequisite: One full-course equivalent in LIN or alternate prerequisites with permission of the instructor.
Session: Winter Evening
T.B.A.
Normally offered every other year

LIN60SS Phonology: Sound Systems of Languages
Telephone ID #: 20030353
The course deals with the theory of sound systems, starting with Generative Phonology, and proceeds to recent multilayer theory, e.g., Lexical, Metrical, and Antisegmentation theory.
Each strand of the theory is then viewed in terms of its potential applications in areas such as language acquisition, speech-language pathology, audiology, language learning and teaching, early childhood education, primary education, and special education.
The course assumes familiarity with phonology principles and with phonological problem-solving methods.
Exclusion: LIN322
Prerequisite: (LIN50Y, LIN504)
J.D. Woods
Normally offered every other year

LIN60SS The English Language and its Peoples: Variations in Time and Place
Telephone ID #: 20030253
An introduction to the history of the English language and its development into the different varieties of English spoken in the world today.
Topics will include: how English has changed in form and structure as it has developed from one historical stage to the next, and how this has reflected social and cultural changes in the history of the English-speaking people; how and why different varieties of English have come into being, such as Canadian English, American Black English, and creole languages based on English such as Jamaican Creole; and the development of "standard" forms of English and different social attitudes towards different varieties of English.
Prerequisite: One full-course equivalent in ANT, ENG, LIN or SOC
J.D. Woods
Session: Winter Day
Normally offered every other year

LIN627F Animal Communication and the Nature of Language
Telephone ID #: 20032733
An examination of how animals communicate and what this can tell us about how to form a theory of language.
Topics include: non-human communication; the relationship of human language to animal communication; non-linguistic communication by humans.
Lectures, discussion and films.
Prerequisite: One full-course equivalent in LIN, ANT, BIO, PSY or SOC.
Session: Winter Day
J.D. Woods
Normally offered every other year

LIN630S Psychology of Sound Systems of Languages
Telephone ID #: 20040333
Experimental evidence for theories of how humans produce and understand language, and how language is represented in the mind.
Topics will include the perception and categorization of speech sounds; retrieval of words from memory during speech and listening; use of grammatical knowledge in planning and understanding sentences;
Courses Not Offered in 1998/99

LIN5007Y Structure of English
Exclusion: LIN402Y
Prerequisite: LIN401Y
Not offered: 1999/2000
Offered: 2000/2001

LIN5011Y Language and Society
Exclusion: LIN102Y, JAL253
Prerequisite: LIN401Y
Not normally offered every other year

LIN5024F Reading and Writing in a Second Language: Theoretical and Pedagogical Issues
Prerequisite: One full-course equivalent in LIN or alternate prerequisites with permission of the instructor. Normally offered every other year.

LIN5117Y Syntax: The Study of Sentence Structure
Exclusion: LIN431
Prerequisite: (LIN501Y)
LIN506 Normally offered every other year

LIN5125F Semantics: The Study of Meaning
Prerequisite: LINNAH1Y
Offered: 2000/2001

LIN5135F Developmental Psycholinguistics
Prerequisite: One full-course equivalent in LIN and PSYA101
Not offered every other year

Management (B.Com/B.A.)

Faculty List
O. Berman, B.A., S.M. (Tel Aviv University), Ph.D. (M.I.T.), Professor
S. Barlow, B.A. (Harvard), M.P.P. (Kennedy School of Gov't.), Ph.D. (Harvard), Professor
J. Dallaire, B.A., M.A., Ph.D., (Toronto) Professor
D.W. Lamp, B.A., M.A. (Wesleyan), Ph.D. (Toronto), Professor
A. Hyatt, B.A., M.A. (Toronto), Associate Professor
A. Stoth, B.A., M.Sc., M.A., Ph.D. (London), Associate Professor

J.L. Xie, B.A. (People's China, M.B.A., Ph.D. (Concordia), Associate Professor
F. Pennebaker, S.B., Ph.D. (MIT), Assistant Professor
L. Law, B.A. (Calcutta), B.S. (Wilson College), M.S. (Boston), Lecturer
T. Liow, B.Com. (Toronto), C.A., M.B.A. (York, Canada), Assistant Professor
R. Powers, B.A., B.P.H.E., B.A., B.A., B.A. (York, Canada), C.M.A., Assistant Professor

A. Stavenga, B.A., M.B.A. (York, Canada), Assistant Professor

Acting Chair: M. Krasnitsky

The design of the curriculum in Management is guided by our mission statement, which follows:

The Scarborough programme in management will provide high-quality pre-professional management education within the context of a liberal arts education for students interested in managerial careers, it will provide introductory education about organizational life for any student enrolled at University of Toronto at Scarborough, and it will develop and support a group of faculty who are actively engaged in research that contributes to the advancement of management knowledge and the quality of instruction.

The first part of the mission statement will be achieved through the Specialist programmes in Management, which are intended to prepare students for careers in the public or private sector or in academia. The second part of the mission statement will be achieved through our introduction to Management courses (MGTA02). The third part of the mission statement refers to faculty development initiatives under way.

The University of Toronto at Scarborough offers the Bachelor of Commerce (B.Com.) degree to students who complete either the Specialist Programme in Management and Economics or the Specialist Programme in Management and Economics Theory. Students completing the Specialist Programme in Management and the Joint Specialist Programme in Management and Economics will receive the B.A. We also offer Co-operative versions of the Management and Economics and Management and Economics Programme. The Division also offers a Certificate in Business Administration.

Our faculty development initiatives have enabled the University of Toronto at Scarborough Management programmes to offer a much wider range of courses than in previous years. University of Toronto at Scarborough students who wish to take courses at the St. George Campus for which comparable courses are not available at Scarborough should be aware that courses at the St. George Campus are also subject to limits on enrolment. Management programmes students must have permission from their supervisor of studies to take management courses at another campus. Permission would be granted only if the course is not available at Scarborough. Students should also be aware that the other campuses require that students have at least 15 FCE's and all the prerequisites and that there be space available after the other campus' students have been accommodated.

Admission to graduate studies leading to the Master of Business Administration (MBA) degree is open to all qualified graduates (fifteen or twenty course degrees) regardless of the subjects or disciplines studied at the undergraduate level. Students contemplating graduate study should be advised to visit the MBA Orientation Programmes to learn more about the MBA programmes. 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 giving rise to admission to Programmes. Information on how to apply for admission to a Programme and to limited enrolment courses will be available prior to the end of classes in April.

Prerequisites: Some courses may have specific prerequisites which will be strictly enforced for all Management courses. Students who know that they are not prepared to complete the course requirements for which they have been admitted will be denied access to those courses.

Management Programmes

There are four Specialist Programmes in Management, two with Co-op options, which are described below:

Notes to Non-Programme Students

All B.Com. and Specialist management courses are restricted to management programme students.
students only. Management programme students includes degree, certificate and special students in management. In the following courses no exceptions will be made to the restrictions: MGTB02, MGTB03, MGTB12, MGTB15, MGTB20, MGTB25, MGTB30, MGTB34, MGTB38, MGTB40, MGTB45, MGTB47, MGTB50, MGTB54, MGTB75. In other upper-level require, instructors will sign in non-programme students if there is space and if the students have the prerequisites or permission of the instructor. This form of admission would take place at the first class of each course.

Admissions
Each year a total of 150 students are admitted to the Specialist Programme in addition to admissions to Co-op studies. There are three possible ways to be admitted. (The following notes apply to all of our programmes including Co-op. However, students interested in Co-op should also refer to additional application information in the following Co-op programmes section.)

1. Directly from Secondary School
Up to 80 students will be admitted directly from high school, on the basis of academic performance. Applicants interested in the Specialist Programme in Management must have completed OAC English 1 and one OAC math; applicants interested in the Specialist Programme in Management and Economics or the Specialist Programme in Management and Economic Theory must have completed OAC English 1, OAC Calculus, and OAC Algebra/Geometry. Students who have completed approximately 80% of the Grade 12 requirements will be considered for admission to the Specialist Programme in Management and Economic Theory. Students who have completed more than 80% of the Grade 12 requirements will be considered for admission to the Specialist Programme in Management and Economics. The Specialist Programme in Management and Economic Theory must have completed OAC English 1 and OAC Calculus, and OAC Algebra/Geometry. Students who have completed approximately 80% of the Grade 12 requirements will be considered for admission to the Specialist Programme in Management and Economic Theory. Students who have completed more than 80% of the Grade 12 requirements will be considered for admission to the Specialist Programme in Management and Economic Theory.

2. At the End of First Year
Applicants for the Specialist Programme in Management must have completed the following courses (or be in the process of completing) MGTB02 and MGTB03 and at least 60% of the Specialist Programme in Management and Economic Theory must have completed (or be in the process of completing) MGTB02, MGTB03, MGTB12, MGTB15, MGTB20, MGTB25, MGTB30, MGTB34, MGTB38, MGTB40, MGTB45, MGTB47, MGTB50, MGTB54, MGTB75. In other upper-level require, students must maintain a GPA of 2.0 or higher having attempted at least 8 full-course equivalents. Students must maintain a cumulative GPA of 2.50 throughout the programme.

3. Admission after First Year
Admission of students during second year (this is, until they have completed the remaining 10 full courses) will be on the basis of all grades received. Students who have completed more than ten full courses will not normally be considered for admission to the Co-op Programme. Students applying at the end of first year or during the second year will be considered together for appointments to the Specialist Programme in Management and Economic Theory. Students admitted to the Specialisation Programme in Management and Economic Theory must have completed OAC English 1 and OAC Calculus, and OAC Algebra/Geometry. Students who have completed approximately 80% of the Grade 12 requirements will be considered for admission to the Specialist Programme in Management and Economic Theory. Students who have completed more than 80% of the Grade 12 requirements will be considered for admission to the Specialist Programme in Management and Economic Theory.

Guidelines for First-Year Students in Management and Economic Theory
Co-op B.A.: MGTB02, MGTB12, ECOA03, CICA02
Co-op B.Com.: MGTB02, MGTB12, ECOA02, CICA02

Direct Admit B.A.: MGTB02, MGTB12, ECOA03, [CICA02 recommended, MGTB02 allowed]
Direct Admit B.Com.: MGTB02, MGTB12, ECOA02, CICA02 [CICA02 recommended, MGTB02 allowed]

Pre-programme (must have at least 4 P.E.C.'s to apply to programme)

B.A.
MGTB02, ECOA03, [CICA02 recommended but not required to apply to programme]

B.Com.
MGTB02, ECOA02, MATB28, [CICA02 recommended but not required to apply to programme]

Taking a course in the Humanities or Social Sciences is recommended in all Programmes.

SPECIALIST (CO-OPERATIVE) PROGRAMMES IN MANAGEMENT AND ECONOMICS
Coordinator: T.R.A.
Supervisor of Studies: A. Stavrouga (287-7251)
The Management Co-operative Programmes are work-study programmes which combine academic studies with work experience in public and private enterprises. The programmes alternate study terms with work terms and typically require four years to complete. Students learn through both study and practical experience.

The Administration (Co-op) Programme has been replaced in 1996-97 by Co-op versions of the Specialist Programmes in Management and Management & Economics. Students admitted to the Administration Programme in 1995 or earlier will be allowed to complete this programme described at the time of admission. Alternatively, they may wish to follow one of the programmes described below. They should consult with the supervisor about this choice.

Co-op students will follow the course requirements specified in the Specialist in Management or the Specialist in Management & Economics Programmes which are described later in this section.

Admission to the Programme
(Students should also refer to additional detailed information about admissions to programmes in this division presented earlier in this Calendar section.)

Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or first-year University. The availability of work placements for students who receive transfer credit will depend upon the particular university courses completed. When applying, applicants must indicate the code for this University or College program and the application for admission to an Ontario University. Once the University of Toronto is notified of the application, candidates are sent an additional co-op application form to complete. To be considered for the first round of selection, Co-op applications must be received by the University no later than April 15. Therefore it is essential that the applicant apply to the university at least six weeks prior to this date.

Note: that enrolment in the programme is limited. Admissions are granted on the basis of applicants’ interest and potential ability in Management, and accomplishment and grades in both verbal and quantitative studies.

Fee
Every student in a Co-operative Programme is required to pay additional fees as established by the university.

Work Terms
This programme requires eight four-month terms of study and three work terms over a four-year period. In addition to the twenty full-course credits needed for graduating, extra credits will be awarded for the work terms. Students normally begin with one or two full academic years of study, then alternate study and work terms, and conclude with a final eight months of study. Work terms are arranged and supervised by the faculty on the programmes co-ordinator but must be won by students in competition. Co-op students may obtain information from this and other Universities. During work terms students gain experience in a wide range of departments within government, business enterprises and public agencies. Depending on their needs and abilities students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy and strategic planning.

Curriculum
In the first two years of study all students follow a common core of studies (please refer to the detailed requirements in the Management and Management & Economics Programmes). In addition to the common core of studies, co-op students MUST take MGTB02 & CICA02
SPECIALIST PROGRAMME IN MANAGEMENT

Supervisor: A. Sawingii (287-7511)

This programme is designed to give students a broad exposure to all functional areas of management. It allows students to pursue a degree of specialisation in a specific area of management, or to combine studies in management and another discipline, such as the programmes in Management and Languages described below. Calculus is not required.

Students are encouraged to take MGTA02, ECOA03, CSAC02 and two courses offered in other divisions in the first year.

The remaining courses needed to complete the degree requirement of 20 P.C.E.'s can be chosen either within or outside the Division of Management & Economics in accordance with the student's interest.

The Programme requires the completion of the following minimum requirements as part of a twenty-course degree (13.5 full-course equivalents):

**NOTE:** A single course may only be used to fulfill one of the following requirements:

1. MGTA02, MGTA03, MGTB03, MGTB10 (formerly ECOB10) or MGTB12, MGTB13 and MGTB24 (MGTB28) and MGTB30, MGTB33 (MGTB35) and MGTB60, MGTB63.
2. Students who have completed MGTB27 in 1993-94 or before are exempt from MGTB13 and MGTB24 (MGTB28) and MGTB35 (as listed in 1. above). These students however must also take 0.5 P.C.E. of courses emphasizing management skills chosen from MGTB16, MGTB42, MGTB52 (MGTB54), MGTB89.
3. Students taking MGTB12 and MGTB13 (MGTB28) will not need to complete this requirement, but need to complete MGTB25 (as specified above).
4. at least 0.5 P.C.E. of courses in strategic management, chosen from MGTB16, MGTB10, MGTB13, MGTB35, MGTB36, MGTB42, MGTB44, MGTB54, MGTB89.
5. ECOA02 or ECOA03, either ECOB03 or ECOB07, or one of ECOB03 and ECOB04 should have 1 P.C.E. of C-level economics courses. A C-level economics course is defined as one that has a B-level prerequisite.
6. CSCA02 or students familiar with the material in CSCA02 may substitute CSCA06
7. Three-and-a-half full-course equivalences from courses other than MGT & ECO, to include at least one full-course equivalence from courses within the Division of Humanities.

JOINT SPECIALIST PROGRAMME IN MANAGEMENT AND LANGUAGE (FRENCH)

Supervisor: A. Sawingii (287-7511)

The Management and Economics and Humanities Divisions have cooperated to develop a joint programme in Management and French.

The Management requirements for any of these programmes is the first 3 requirements for the Specialist in Management (see above). The sixth requirement is waived.

Students are encouraged to take MGTA02, ECOA03, CSAC02 and an appropriate course(s) in French or Spanish in the first year.

Language requirements consist of five full-course equivalents in one language, made up of A: Basic Language, B: Business Language and C: Civilization, as follows:

**FRENCH**

A. FREB10, FREB10, one full-course equivalent from FREG01, FREG02, FREG04, FREG05
B. at least one full-course equivalent from FREG01, FREG02, FREG03
C. at least one half-course from FREG01, FREG02, FREG03, FREG05
D. An additional half-course in FRE

**SPANISH**

The Spanish option of this Programme has been withdrawn. Students currently registered in it will be able to complete their Programme.

Students must take at least 10 P.C.E.’s in Management listed as requirements 1 - 5 of the Management curriculum plus the Language requirements.

The remaining courses needed to complete the degree requirement of 20 P.C.E.’s can be chosen either within or outside the Division of Management & Economics in accordance with the student's interest.

SPECIALIST PROGRAMME IN MANAGEMENT AND ECONOMICS

Supervisor: A. Sawingii (287-7511)

This programme is designed to give students a broad exposure to all functional areas of management as well as a solid grounding in economics. The specialisation in economics topics are treated rigorously by means of calculus.

Students are encouraged to take MGTA02, ECOA02, MATA28, CSAC02 and a course offered in another division in the first year.

The remaining courses needed to complete the degree requirement of 20 P.C.E.’s can be chosen either within or outside the Division of Management and Economics in accordance with the student's interest.

The Programme requires the completion of the following minimum requirements as part of a twenty-course degree (16.0 full-course equivalents):

**NOTE:** A single course may only be used to fulfill one of the following requirements:

1. MGTA02, MGTA03, MGTB03, MGTB12 and MGTB24 (MGTB28) and MGTB29, MGTB30, MGTB33 (MGTB35) and MGTB60, MGTB63.
2. Students who have completed MGTB27 in 1993-94 or before are exempt from MGTB23 and MGTB24 (MGTB28) and MGTB35 (as listed in 1. above). These students however must also take 0.5 P.C.E. of courses emphasizing management skills chosen from MGTB16, MGTB42, MGTB52 (MGTB54), MGTB89.
3. Students taking MGTB12 and MGTB13 (MGTB28) will not need to complete this requirement, but need to complete MGTB25 (as specified above).
4. at least 0.5 P.C.E. of courses in strategic management, chosen from MGTB16, MGTB10, MGTB13, MGTB35, MGTB36, MGTB42, MGTB44, MGTB54, MGTB89.
5. ECOA02, ECOB04, ECOB08, ECOB09, (or STAR2 and STAR4 or STAR4) and another additional MAT prerequisite and 1 P.C.E. of C-level economics courses. A C-level economics course is defined as one that has a B-level prerequisite.
6. MATA28 (strongly recommended) or MATA26
6. CSCA03 (students familiar with the material in CSCA02 may substitute CSCA06).

7. Two-and-a-half additional P.C.E.'s from courses other than MGT/Eco, to include at least 1 P.C.E. from courses within the Division of Humanities.

SPECIALIST PROGRAMME IN MANAGEMENT AND ECONOMIC THEORY

Supervisor: A. Starling (827-7351)

This programme is designed to prepare students for graduate work in economics while providing a firm grounding in management. Quantitative topics are treated rigorously by means of calculus.

Students are encouraged to take MGT/A02, ECO/A02, MATA28, CSCA02 and a course offered in another division in the first year.

The remaining courses needed to complete the degree requirement of 20 P.C.E.'s can be chosen either within or outside the Division of Management and Economics in accordance with the student's interest.

The Programme requires the completion of the following minimum requirements as part of a twenty-course degree (17.5 full-credit equivalents):

NOTE: A single course may only be used to fulfill one of the following requirements:

1. MGT/A02, MGT/B20, MGT/C03, MGT/D85 (MGT/B28) and MGT/D29, MGT/C03, MGT/C04, MGT/C09, MGT/C24, MGT/C75

2. Students who have completed MGT/D72 in 1993-94 or before are exempt from MGT/B28 and MGT/D29 (MGT/B28) and MGT/D29 (as listed in 1. above). These students however must also take 0.5 P.C.E. of courses emphasizing management skills chosen from MGTC56, MGTC42, MGTC26, MGTC20, MGTC24, MGTC20, MGTC09. Students taking MGT/B28 and MGTC/B20 (MGT/B28) will not need to complete this requirement, but need to complete CPT/B29 (as specified above).

3. At least 0.5 P.C.E. of courses emphasizing scientific management, chosen from MGTA30, MGTC10, MGTC11, MGTC25, MGTC38, MGTC44, MGTC42, MGTC24, MGTC35, MGTC59.

4. ECOA02, ECOB04, ECOH01, ECOB09, ECOH09 (one STA 252 and one STA 267), which require the additional N.C.T. prerequisites, respectively.

5. ECOA07 and ECOA14.

6. P.C.E. of C-level economics courses.

A C-level economics course is defined as one that has a B-level prerequisite.

5. MATA28 (strongly recommended) or MATA26.

6. CSPA02 (students familiar with the material in CSPA02 may substitute CSPA05)

7. Another-and-a-half additional P.C.E.'s from courses other than MGT/Eco, to include at least 1 P.C.E. from courses within the Division of Humanities.

Careers in Accountancy

The College offers a significant number of courses which have been recognised at 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. A brochure describing the various programmes and listing the recognized University of Toronto at Scarborough courses is available from the Career Centre (827-7361).

CERTIFICATE IN BUSINESS

The Division of Management and Economics also offers a certificate programme for non-degree students. Non-degree students interested in this certificate programme should contact the supervisor, R. Powers (827-7551).

SPECIAL STUDENTS IN MANAGEMENT AND ECONOMICS

Supervisor: R. Powers (827-7551)

E-mail: powers@sc.ar.action.ca

Special students may be allowed to take individual courses either as credits towards a professional certification (for example in accounting or human resource management) or for personal interest. Students may take courses if they have fulfilled the prerequisites or have the permission of the instructor, however, students must first consult the supervisor about choosing their courses.

Applications must have some post-secondary education or comparable business experience. To assist in designing individual course selection, the application form will ask about one's educational objectives. Applicants may begin in either semester of Winter Session or in Summer Session.

MGT/A02 Introduction to Management

Telephone ID #: 33510200

Introduction to the process of management (planning, organizing, controlling, and directing), the functional components of profit and nonprofit 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 B20 for students in programming requiring B20 or B20 for students admitted to the Management programme directly from high school).

Exclusion: MGT/A01

Prerequisite: None

Session: Winter Day, Winter Evening, Summer Evening

MGT/B20 Financial Accounting

Telephone ID #: 33520263

Basic theory and concepts which underlie the preparation of financial statements; development of double entry theory and practice; the accounting cycle and the recording of transactions in double entry form to the year-end, and the preparation of financial statements; problems of measuring income. The course provides a rigorous introduction to accounting techniques and to the principles and concepts underlying those techniques. Enrolment in this course is limited to students registered in programs requiring this course.

Exclusion: MGT/B20 + MGT/C20

Prerequisite: MGT/A01.

Students admitted to the Management programme directly from high school and students registered in programmes requiring this course may take MGT/B20 concurrently.

Session: Winter Day, Summer Session

MGT/A02Y Financial Accounting

Telephone ID #: 33520263

Basic theory and concepts which underlie the preparation of financial statements; development of double entry theory and practice; the accounting cycle and the recording of transactions in double entry form to the year-end, and the preparation of financial statements; problems of measuring income. The course provides a rigorous introduction to accounting techniques and to the principles and concepts underlying those techniques. Enrolment in this course is limited to students registered in programs requiring this course.

Exclusion: MGT/B20 + MGT/C20

Prerequisite: MGT/A01.

Students admitted to the Management programme directly from high school and students registered in programmes requiring this course may take MGT/B20 concurrently.

Session: Winter Day, Summer Session

MGT/B20Y Financial Accounting

Telephone ID #: 33520263

Basic theory and concepts which underlie the preparation of financial statements; development of double entry theory and practice; the accounting cycle and the recording of transactions in double entry form to the year-end, and the preparation of financial statements; problems of measuring income. The course provides a rigorous introduction to accounting techniques and to the principles and concepts underlying those techniques. Enrolment in this course is limited to students registered in programs requiring this course.

Exclusion: MGT/B20 + MGT/C20

Prerequisite: MGT/A01.

Students admitted to the Management programme directly from high school and students registered in programmes requiring this course may take MGT/B20 concurrently.

Session: Winter Day, Summer Session

MGT/B20S Marketing Management

Telephone ID #: 33520233

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

Exclusion: MGT/B28H

Prerequisite: MGT/A07Y or MGT/A07.

And for the Fall offering, MGT/A10Y.

Exclusion: MGT/A20Y.


MGT/B20S Quantitative Methods in Management

Telephone ID #: 33520103

An introduction to statistics and regression analysis as used in economic analysis. The course will cover material similar to ECO/B09 but in somewhat less depth. Topics to be covered include: summary statistics, special probability distributions (normal, binomial), confidence interval, hypothesis testing (parametric), and simple and multiple regression. There will be a number of computer assignments.

Limited enrolment: 80 per section.

Exclusions: ANTC359S, ECO/B09, ORC1031, PYS/B79S, SOC/B06S, STA/B20S.

Prerequisites: CSPA02 or CSCA06.

Exclusion: MGT/A07Y.


MGT/B20S Managing People in Organizations

Telephone ID #: 33520233

An introduction to micro-organizational behavior theories from both conceptual and applied perspectives. Students will examine a variety of theories and concepts to help them develop an understanding of the behavior of individuals and groups in all types of organizational settings. Topics covered include: Individual differences, motivation and job design, work attitudes, decision making, and leadership. Enrolment is limited to students registered in programs requiring this course.

Exclusion: MGT/B28Y, MGT/B28H.

Prerequisite: MGT/A07Y.

MGT32F5 Managerial Skills
Telephone ID #: 35522453
Telephone ID #: 35522453
This course deals with the development of managerial skills.
As management students enter today's complex organizations, they need managerial skills as well as knowledge of the conceptual and technical material covered by their courses. This course provides students with opportunities 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 and problem solving, motivating and leading, and teamwork. Enrollment is limited to students registered in programs requiring this course.
Exclusion: (MGT282N)
Prerequisites: MGT2A02
Session: Winter Day, Winter Evening, Summer Evening

MGT2B2F Managing Groups and Organizations
Telephone ID #: 33522933
An introduction to the practical and theoretical aspects of macro-organizational behaviour.
Organizations are in integral part of our everyday lives, yet, the average person understands little about how organisations function. This course is about how organizations work, and how we can change them to make them work for us. Building on concepts and theories from MGT2E2 and MGT2B4, students will be introduced to theoretical and practical aspects of macro-organizational levels of behavior that teachers, students, and organizations see as group and organizational levels of analysis. Topics covered include organizational design, culture, and innovation, power and politics, and group dynamics and intergroup relations. Enrollment is limited to students registered in programs requiring this course.
Prerequisite: MGT2B2F & MGT24BVS (MGT282)
Session: Winter Day, Winter Evening, Summer Evening

MGT38D5 Organizational Design in the Not-for-Profit Sector
Telephone ID #: 35523033
The course will begin with an examination of the peculiar structural characteristics of the not-for-profit sector. Various theoretical frameworks will then be considered in terms of their impacts on organizational structure and success. Organizational theory models will be used as a springboard into an investigation of the dynamics of a wide variety of not-for-profit designs within the sector. This course will assist participants to build a strategic "toolkit" for the proactive design and management of organizations within the not-for-profit sector.
Limited enrollment: 60
Prerequisites: MGT2B2F & MGT24BVS (MGT282)
Session: Winter Evening

MGT5008 Principles of Finance
Telephone ID #: 35530533
Telephone ID #: 35530533
The objective of this course is to provide students with the theories and skills to make optimal corporate financial decisions. It deals with general approaches for valuing cash flows. Enrollment is limited to students registered in programs requiring this course.
Limited enrollment: 70
Exclusions: MGT23Y, MGT237Y
Prerequisites: MGT181F or ECON205F & MGT2B87S
Session: (F) Winter Day, Winter Evening, (D) Summer Evening

MGT5008 Principles of Marketing
Telephone ID #: 35530543
Telephone ID #: 35530543
An introduction to basic concepts and tools of marketing designed to provide students with a conceptual framework for the analysis of marketing problems. The focus is on the nature and scope of marketing in an organizational and social context. The subjects include an examination of buyer behaviour, market segmentation and target marketing, the basic elements of the marketing mix, promotion and channel policies, marketing planning, evaluation and control.
Limited enrollment: 60
Exclusion: MGT23H
Prerequisites: MGT2B3F & MGT282N
Session: (F) Winter Day, Winter Evening
Session: (S) Summer Evening

MGT5008 Intermediate Management Accounting
Telephone ID #: 35530553
Telephone ID #: 35530553
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 enrollment: 60
Exclusions: MGT223H & MGT232H
Prerequisite: MGT183F
Session: Winter Evening

MGT5008 Intermediate Financial Accounting
Telephone ID #: 35530733
Telephone ID #: 35530733
Together with MGT5010, an examination of the framework of theory and practice of financial reporting in Canada. Theoretical and practical accounting and reporting issues are examined. Various topics dealing with measurement and disclosure are covered. The course builds extensively on the material covered in MGT5010 and, to a lesser extent, MGT183. Potential students should review thoroughly the basic accounting model, preparation of financial statements, and accounting principles prior to the start of this course.
Limited enrollment: 60
Exclusions: (MGT184F) & MGT224H & MGT232H
Prerequisites: MGT202Y & MGT5010S
Corequisite: MGT5008F (either with this course or with MGT512)
Session: Winter Day (F), Winter Evening (S)

MGT5008 Intermediate Financial Accounting
Telephone ID #: 35530583
A continuation of MGT5010. It continues the students' development of skills and professional judgment through study of several complex topics. To this end, problems, cases and discussions are used in the course. Students must complete MGT5010 before attempting this course.
Limited enrollment: 60
Exclusions: MGT202Y & MGT224H & MGT232H
Prerequisite: MGT5008S (either with this course or with MGT5010)
Session: Winter Day

MGT5008 Canadian Income Taxation
Telephone ID #: 35531633
This is the first of two courses in Canadian income taxation. It is designed to provide the student with detailed instruction in income taxation as it applies to individuals and small businesses. Current tax laws are applied to practical problems and cases. Topics covered include: employment income, business and property income, and computation of tax for individuals.
Limited enrollment: 60
Prerequisites: Completion of at least ten full-course equivalents including MGT202Y & MGT282N
Session: Winter Day, Winter Evening, Summer Evening

MGT5008 Intermediate Finance
Telephone ID #: 35530593
This course provides a detailed examination of approaches for dealing with financial decisions faced by the corporation. Included are issues such as capital budgeting, leasing, mergers and acquisitions, and alternative financing methods.
Limited enrollment: 60
Exclusions: MGT331Y, MGT337Y
Prerequisites: MGT233F
Session: Winter Day

MGT5010 Management Control Systems
Telephone ID #: 35531033
Telephone ID #: 35531033
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 enrollment: 60
Exclusion: MGT4281
Prerequisites: MGT202Y & MGT233F & MGT24BVS (MGT282)
Session: Winter Evening

MGT5119 Management Information Systems
Telephone ID #: 35531133
Telephone ID #: 35531133
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 decision making and decision making.
Limited enrollment: 60
Prerequisites: MGT202Y & MGT233F & MGT24BVS (MGT282)
Session: Winter Day, Winter Evening

MGT512F Canadian Income Taxation
Telephone ID #: 35531633
This is the first of two courses in Canadian income taxation. It is designed to provide the student with detailed instruction in income taxation as it applies to individuals and small businesses. Current tax laws are applied to practical problems and cases. Topics covered include: employment income, business and property income, and computation of tax for individuals.
Limited enrollment: 60
Prerequisites: Completion of at least ten full-course equivalents including MGT202Y & MGT282N
Session: Winter Day, Winter Evening, Summer Evening
MCITC17S Canadian Income Taxation II
Telephone ID #: 33533353
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 distribution, corporate reorganizations, partnerships, trusts, and individual and corporate tax planning.
Limited Enrolment: 60
Prerequisite: MCITC14PF Session: Summer Evening, Winter Evening

MCITC20F Human Resource Management
Telephone ID #: 33533353
An introduction to the basic concepts, theories and practices of personnel management. Topics include recruitment, selection, training, development, performance appraisal, compensation and human resources planning. Affective action, discrimination and equal pay issues will be examined in relation to human rights legislation.
Limited Enrolment: 60
Prerequisites: MGTB10F & MGTB24F5S
Complementary: MGTB20F5S Session: Winter Day

MCITC31F5S The Legal Environment of Business I
Telephone ID #: 33533313
Telephone ID #: 33533513
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, property law, fiduciary law, and quasi-fiduciary law. Limited Enrolment: 60
Exclusion: [MCITC20F, MGTB20F5S] I and II
Prerequisite: Completion of at least ten full-course equivalents including MGTB02Y Session: Winter Day (F), Summer Evening (S)

MCITC35S The Legal Environment of Business II
Telephone ID #: 33533255
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 the laws affecting securities and commercial transactions.
Exclusion: [MCITC35Y, MGTB25H] Session: Winter Day

MCITC35X Management and Organization in Fiction
Telephone ID #: 33533553
Through the analysis of works of fiction with business settings, this course explores the ethical dilemmas, organizational politics and career choices that managers can expect to face.
Limited Enrolment: 60
Prerequisites: MGTB23F5S & MGTB24F5S (MGTB28Y)
Session: Winter Day

MCITC36F Management Communications
Telephone ID #: 33533353
Written and Oral Communication Skills for Managers
Effective and effective communication allows professionals to communicate with confidence their managerial knowledge and expertise. Topics in this course include written and oral communications from e-mail to reports and oral presentations both spontaneous and prepared. Students will learn how to communicate in a well-organized, audience-oriented manner in concise, jargon-free language. Since correct grammar and punctuation are essential to good communication, these skills will be carefully reviewed. Clear participation and group interactions will be stressed.
Limited Enrolment: 60
Prerequisites: MGTB21F5S & MGTB24F5S (MGTB28Y)
Session: Winter Day

MCITC37F Entrepreneurship
Telephone ID #: 33533553
This course focuses on a practical viewpoint, using case methods, on the skills required and issues - personal, financial, operational, personnel - 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.
Limited Enrolment: 60
Prerequisites: MGTB20F5S & MGTB24F5S (MGTB28Y) Session: Winter Day

MCITC39F Management Policy and Strategy
Telephone ID #: 33544333
An introduction to the art and science of management of a business organization. This course explores management in the general management of business, such as understanding and evaluating the competitive environment, designing a strategy that will enable an organization to succeed in its environment, and the management of conglomerate organizations. The course will use the case method extensively.
Limited Enrolment: 60
Exclusion: MGTB30F
Prerequisites: MGTB20Y & MGTB25F5S & ECON301Y or ECON300Y
Session: Winter Day

MCITC42F Public Management
Telephone ID #: 33534253
The course deals with key public sector management processes (planning, budgeting, human resources, crisis management) making extensive use of cases, case studies, and simulations intended to develop the student’s management skills.
Limited Enrolment: 60
Exclusion: MGTB30F
Prerequisites: MGTB23F5S & MGTB24F5S (MGTB28Y) & POLA20Y or POLA201Y
Complementary: MGTB24F5S Session: Winter Day

MCITC45S International Business Management
Telephone ID #: 33534453
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: MGTB30F
Prerequisites: MGTB20Y & MGTB24F5S (MGTB28Y)
Session: Winter Evening

MCITC45Y The Changing World of Business - Government Relations
Telephone ID #: 33534553
How regulation, privatization and globalization are affecting today’s managers.
Most major management issues and business opportunities involve government (domestic or foreign) at some level - whether as lawmaker, customer, partner, investor, tax-collector, grant-giver, licensor, dealer, maker, agent, door-opener, friend or enemy. Increasingly, the ability to interact with government is becoming part of every manager’s portfolio of skills and a specialty for many. This course provides students with an understanding of the issues and introduces some of the skills necessary to successfully manage a business’s relationships with government. Part of the appeal of the course will be its topicality and the use of current materials.
Enrolment limit: 60
Prerequisite: MGTB20Y Session: Winter Day

MCITC52F Business Negotiation
Telephone ID #: 33535253
An introduction to the theory and practice of negotiation in business. Almost all business relationships (for example, relationships among managers and relationships with suppliers and customers) require negotiations. This course provides students with a set of approaches and tactics to use in different situations, and an introduction to traditional and emerging procedures for resolving disputes if negotiations break down. To gain practical experience, students will participate in exercises which simulate negotiations.
Limited Enrolment: 60
Exclusion: MGTB30Y
Prerequisites: MGTB20Y & MGTB23F5S & MGTB24F5S Session: Winter Evening

MCITC53S Introduction to Industrial Relations
Telephone ID #: 33533535
An overview of the industrial system and process in Canada. The course will introduce students to: industrial relations processes; roles of unions; management, employment law, labour law, the impact of collective bargaining on the economy and the firm, strikes and lockouts; grievance arbitration, collective bargaining in the public sector, occupational health and safety and workers’ compensation, and the history of the Canadian industrial relations system. Students will participate in collective bargaining simulations.
Limited Enrolment: 60
Exclusion: MCITC34Y
Prerequisites: MGTB20F5S & MGTB24F5S (MGTB28Y)
Session: Winter Evening

MCITC55Y Planning and Budgeting for Public Institutions
Telephone ID #: 33535555
The theory and practice of planning and budgeting for public institutions.
Limited Enrolment: 60
Prerequisite: MGTB20Y
Session: Winter Day
After presenting theories of planning and resource allocation in large public institutions, the course will illustrate them by means of extensive case studies of the challenges currently faced by universities and colleges. Instruction will be a combination of lecture, discussion, and case studies.

Limited enrollment: 60
Prerequisite: MGT400Y

MGT505S Management Ethics
Telephone ID #: 33535953
This course provides students with a set of skills necessary to deal with the ethical problems that contemporary managers face. Increasingly, the marketplace has come to reward — and government regulators have come to demand — a sophisticated managerial approach to the ethical problems that arise in all areas of business practice. Topics will include ethical issues in international business, finance and banking, accounting, advertising, intellectual property rights, environmental policy, product and worker safety, new technologies, pay equity and affirmative action, whistle-blowing, and drug testing for employees.

Limited enrollment: 60
Prerequisite: MGT402Y
Session: Winter Day

MGT506S Introduction to Operations Management
Telephone ID #: 33540553
Introduces the student to the design and control of problems that transform inputs into outputs, with an emphasis on making strategic, tactical, and operational decisions in the operations function. The course also covers several management science approaches used to solve the associated problems.

Limited enrollment: 60
Exclusion: MGT513R
Prerequisites: ECOA00Y & MGTB10F (DGS409Y)
Session: Winter Evening

MGT512P Advertising: From Theory to Practice
Telephone ID #: 33541233
An introduction to the basic conceptual tools used in advertising, implementing and evaluating promotional strategies.

Limited enrollment: 60
Exclusion: MGT530R
Prerequisites: MGTB10F & MGT501Y
Session: Winter Evening

MGT515S Advanced Accounting
Telephone ID #: 33545033
Advanced financial accounting course in the context of corporate accounting and concepts for a number of areas including inter-corporate investments, and foreign currency translation.

Limited enrollment: 60
Prerequisite: MGT510Y
Session: Winter Evening

MGT516S Management of Service Quality
Telephone ID #: 33545433
Managing customer service in the context of the legal, economic, and social environment.

Limited enrollment: 60
Prerequisite: MGT510Y
Session: Winter Evening

MGT517S Current Issues in Management
Telephone ID #: 33545753
Through a review of current literature and computer simulations, this seminar considers major decision-making research and new complex cost systems design approaches. Other topics may include service sector practices, distribution costing, quality measurement, international developments, and ethical questions.

Limited enrollment: 60
Prerequisite: MGT500PS
Session: Winter Day

MGT518S Auditing
Telephone ID #: 33546053
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 enrollment: 60
Prerequisite: MGT500PS or MGT501Y
Session: Winter Evening

MGT519S Investments
Telephone ID #: 33545753
This course reviews and evaluates major investment possibilities in stocks and bonds, risk and return characteristics, efficient markets, evaluation, and portfolio management.

Limited enrollment: 60
Exclusion: MGT530Y
Prerequisites: MGT500PS
Session: Winter Day

MGT520P Supervised Reading Course
Telephone ID #: 33540553
Supervised reading course for upper-level students whose interests are not covered in one of the other Management courses normally offered. The course will only be offered when a faculty member is available for supervision. It is only available to students whose Management performance has been well above average.
Neuroscience (B.Sc.)

Faculty List
J.R. Brown, B.Sc. (Carleton), Ph.D.
(University of Toronto), Professor
T. C. G. Grodin, B.Sc. (Rutgers), M.Sc. (Toronto), Ph.D.
(Montreal), Professor
J.W. Gurney, B.A. (Mount Allison), Ph.D.
(McGill), Professor
G.O. Ivy, B.A. (Drew), Ph.D. (California Institute of Technology), Professor
N.W. Milgram, B.A. (UCLA), M.A., Ph.D.
(McGill), Professor
T.L. Pate, B.Sc., M.A. (Louisiana, Ph.D.
(Tulane), Professor
J.R. Mendelson, B.Sc. (Toronto), Ph.D.
(Dalhousie), Associate Professor

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 made fundamental contributions to clinical aspects of neurodysfunction and behavior.

The Major and Specialist Programmes in Neuroscience have been designed for students who are interested in pursuing graduate or medical training in Neuroscience or medical training in any of the sub-disciplines, including dentistry, chiropractic, veterinary medicine, physical therapy, etc. The Specialist Program has a heavy laboratory component and students are encouraged to become actively involved in ongoing research.

First-Year Students in Neuroscience

Biology (B.Sc.)

Music (B.A.)

Please refer to the Physical Sciences Bachelor's section of the calendar, page 112, for a list of prerequisites. Please refer to FSS Registration page 140 for programme and course outlines.

Neuroscience 105

Majors in Neuroscience

Supervisor: J. Gard (Office: 8532)

The programme requires seven full-course equivalents. Students who might consider completing a four-year degree are encouraged to include as electives:

CMB140Y, BIOC121F and BIOC122F to be eligible for the Specialist Program.

The following courses for the Major Programme in Neuroscience. This programme may be easily combined with a major in biology, psychology or computer science.

1. The following 3.0 FCE's:
   - BGY1A0Y
   - BGY1B0Y
   - BGY1C0Y

2. The following 3.5 FCE's:
   - BGY1D0Y
   - BGY1E0Y
   - BGY1F0Y

3. The following 3.0 FCE's:
   - BGY1G0Y
   - BGY1H0Y
   - BGY1I0Y

4. The following 3.0 FCE's:
   - BGY1J0Y
   - BGY1K0Y
   - BGY1L0Y

5. The following 3.0 FCE's:
   - BGY1M0Y
   - BGY1N0Y
   - BGY1O0Y

6. The following 3.0 FCE's:
   - BGY1P0Y
   - BGY1Q0Y
   - BGY1R0Y

7. The following 3.0 FCE's:
   - BGY1S0Y
   - BGY1T0Y
   - BGY1U0Y

8. The following 3.0 FCE's:
   - BGY1V0Y
   - BGY1W0Y
   - BGY1X0Y

9. The following 3.0 FCE's:
   - BGY1Y0Y
   - BGY1Z0Y
   - BGY1A0Y

10. The following 3.0 FCE's:
    - BGY1B0Y
    - BGY1C0Y
    - BGY1D0Y

Specialist Programme in Neuroscience

Supervisor: J. Gard (Office: 8532)

Note: Entry into this Programme is limited to a maximum of 30 students each year and will be based on grades obtained in PSY401Y, BGY1A0Y (BIO401Y), and CMB140Y.

Specialist Course in Neuroscience

Supervisor: J. Gard (Office: 8532)

Note: Entry into this Programme is limited to a maximum of 30 students each year and will be based on grades obtained in PSY401Y, BGY1A0Y (BIO401Y), and CMB140Y.
NROD35F Neurosurgery
Telephone ID: 2309523
NROD35F  Advanced Neurosurgery Laboratory
NROD36F  Pathologies of the Nervous System
NROD55F Thesis in Neuroscience
PSYD67F Psychology of Aging

NROD30F Animal Physiology
Telephone ID: 2302303
A core course in animal physiology which will consider regulatory mechanisms that control and co-ordinate the functioning of the body.
Topics will include nerve action potentials, chemical synaptic transmission, contraction of striated muscle, neuroendocrine systems, sensory receptors, and hormonal action. This course is the animal half of the Plant and Animal Physiology course, (BOYB30Y) and should be taken by students not completing a Specialis Programme in Biology.
Two one-hour lectures per week, plus one two-hour tutorial every third week.
Exclusion: (BIOB17Y), BOYB30Y, ZO025Y
Prerequisite: BIOTA01Y (BIOA03Y)
Session: Winter Day
C.K. Govind

NROD65F Neuroscience I: Cell Anatomy and Physiology
Telephone ID: 2302603
In-depth coverage of the structure and function of the nervous system.
Topics include: neuroanatomy, structure and function of neurons and glial cells, neurochemistry, neural development, and neural mechanisms at the cellular and molecular levels. The objective is to give the student a firm grasp of the structure and function of the nervous system and its role in the behaviour of the organism.
Three hours of lecture and two hours of lab per week.
Exclusion: PSY240, (PSY690)
Prerequisite: BIOTA01Y (BIM032Y) is recommended for students with no Chemistry background
Session: Winter Day
G. Ivey

NROD345 Intermediate Neurobiology
Telephone ID: 2301345
An examination of the adaptive changes in nervous system of invertebrates.
Topics include development and regeneration of claw asymmetry in crustaceans, conversion of neuromuscular synapses in crayfish, central control of flight flight, wing withdrawal reflex in sea slugs, reconnection of sensory neurons in insects and leeches, and neuromuscular alterations in insect fruit flies. Topics are examined via scientific papers in the literature.
One two-hour lecture per week and tutorials as required.
Exclusion: (BIOB17Y), (BIOB30Y) or (BIOB35Y)
Session: Winter Day
C.K. Govind

NROD35F Developmental Neurobiology
Telephone ID: 2303353
An examination of some aspects of the development of the vertebrate nervous system and mechanisms which guide this development.
Beginning with the embryonic development of the nervous system, this course will address how neurons acquire their trademark properties, grow out to target tissues and make appropriate synaptic connections. Topics will include differentiation of nerve cells, migration of neurons, nerve growth factor, neurotrophic effects on muscle, synapse formation and the rearrangement of neuronal connections.
One two-hour lecture per week and tutorials as required.
Exclusion: (BIOB392Y), (BIOB30Y) or (BIOB35Y)
Session: Summer Evening

NROD65F Neuroscience II: Learning and Motivation
Telephone ID: 2306633
A continuation of NROD65F, emphasizing motivation and learning.
Topics covered under the category of motivation include: physiological basis of eating, drinking and sexual behaviour, and the neural correlates of reward.
Topics covered under learning include: learning categories, memory systems, and the cellular and molecular basis of learning and memory.
Three hours of lecture per week.
Exclusion: PSY240, (PSY690)
Prerequisite: NROD65F (PSY690) or (PSY650)
Session: Winter Day
T.B.A.

NROD59F Synaptic Organization of the Brain
Telephone ID: 2309953
A detailed study of the synaptic organization of the brain, focusing on major structures of the central nervous system.
Neuronal morphology, synaptic connectivity, inhibition and excitation, convergence and divergence, transmitter systems and cellular and molecular mechanisms of information processing will be covered in detail. Similarities in circuits among such seemingly diverse structures as the olfactory bulb and cerebellum will be examined.
One two-hour lecture per week.
Exclusion: PSY240
Prerequisite: NROD65F (PSY690)
Session: Winter Day
G. Ivey

NROD59F Analytical Neurobiology
Telephone ID: 2300423
A reading or research project.
These courses provide an opportunity to investigate an area in depth after completing basic coverage in regularly scheduled courses. They are not intended as substitutes for advanced courses in fields where these are available. The student must demonstrate that his or her background is adequate for the project proposed and should present a clear rationale to prospective supervisers. Frequent consultation with the supervisor is necessary and extensive library research and/or data collection will be required. Such a project will culminate in a written submission. These courses cannot be repeated for credit.
Students must obtain a permission form from the Divisional Office (542A1) that is to be completed and signed by the intended supervisor, and returned to the Divisional Office. At this time, the student will be provided with an outline of the schedule and general requirements for the course.

NROD65F Current Topics in Neuroscience
Telephone ID: 2304403
An intensive examination of selected issues and research related to the Neurosciences.
Lectures: 15 hours
Exclusion: PSY200
Prerequisite: NROD65F (PSY690) & NROD54 (PSY664)
Session: Winter Day
T.B.A.

NROD65F Neuroplasticity
Telephone ID: 2304623
Neuroplasticity refers to the modification of neural tissue in response to experience which provides the foundation for learning, memory, and other complex mental processes.
This course will explore the mechanisms underlying neuroplastic change and its functional significance. There are two major goals: (1) to survey and critically discuss the most important contemporary research on neuroplastic processes; (2) to provide the necessary background so that students are capable of giving a sophisticated answer to the question of what changes occur in the nervous system during learning and memory and what mechanisms underlie these changes.

Limited Enrollment: 20 Exclusions: PSYD301

Prerequisite: NROCS405 (PSY6405) & NROCS6105 (PSY6415) Session: Winter Day

T.B.A. NROCS600 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 in the Neuroscience area (Psychology or Biology). During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their investigation. The individual research project will culminate in a written report in the form of a thesis and a defense of that report in the spring. Students must obtain a permission form from the Divisional Office (S4241A) that is to be completed and signed by the intended supervisor, and returned to the Divisional Office. At the 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.

Prerequisite: Satisfactory completion of fifteen full-course equivalents in any discipline, but including PSYB70 & one laboratory half-course in Psychology or Biology and consent of a faculty member in Psychology or Biology to serve as research supervisor. Exclusions: PSYD98, BGYD02 (BIOD02) Session: Winter Day

Supervision by a Faculty Member

Philosophy

(B.A.)

Faculty List:

J. H. Sobel, M.A. (Iowa State), Ph.D. (Michigan), Professor Emeritus
P. W. Gough, M.A., Ph.D. (Toronto), Professor
W. C. Graham, M.A., Ph.D. (Toronto), Professor
W. E. Senger, M.A. (Alberta), Ph.D. (Toronto), Professor
R. P. Thompson, M.A., Ph.D. (Toronto), Professor
L. Lange, B.A., M.A. (Manitoba), Ph.D. (Toronto), Associate Professor
G. P. Nagel, B.A., M.A. (Simon Fraser), Ph.D. (Carleton), Associate Professor
S. Sedyk, B.A., Toronto), Ph.D. (Toronto), Associate Professor
B. Logan, M.A., Ph.D., (York), Assistant Professor

Curriculum Not Offered in 1998/99

NROCS31 Advanced Neuroscience
Exclusion: PSY399, (PSY399)
Prerequisite: NROCS21, NROCS6105 (PSY6405) & PSY6415, Pathologies of the Nervous System
Exclusion: (PSY6405)
Prerequisite: NROCS60 (PSY6406) & PSY6465

Philosophy

(M.A.)

Major Programme in Philosophy

Supervisor: S. Sedyk (T.B.A.)

Students must complete at least six full-course equivalents in Philosophy, at least one of which must be at the M.A. level.

PHIL410Y Fundamental Questions of Philosophy

Telephone ID: 24501063
A discussion of some of the fundamental questions of philosophy: what is good reasoning? What is morality and can it be justified? Is it reasonable to adhere to a religion? What is knowledge? Are social positions justifiable? Is materialism true? Are humans free?

Some of the world's major philosophers will be studied with a view to answering these and other basic questions which have confronted us throughout history.

The course will be divided into the following lectures sections: L1, L2, L0, L3.

The problems addressed are substantially the same in each section, though the readings and approach may vary from section to section, depending on the instructor.


Staff Offered every year.

PHIL405 Social Issues

Telephone ID: 2452033
An examination of the moral questions surrounding some of the following: abortion, capital punishment, human sexual relations (homosexuality, adultery, etc.), egoism, ecology, civil disobedience, politics towards the Third World and towards the poor.

Exclusion: PHIL313

Session: Winter Day

G. Nagel

PHIL410 Political Philosophy

Telephone ID: 2452103
A study of the philosophical problems of the state and society.

Topics may include: the individual in society, forms of power and coercion, philosophes of political justification of current.

Exclusion: PHIL265

Session: Winter Day

L. Lange

PHIL423 Topical in Philosophy of Law

Telephone ID: 2451113
A discussion of right and rights, justice, legality, and related concepts.

Session: Summer Evening

W. Graham

PHIL415 Philosophy and Feminism

Session: Study and discussion of a variety of issues in contemporary feminist philosophy.

Session: Winter Day

L. Lange

PHIL416 Philosophy of Education

Telephone ID: 2452153
A study of the nature of education.

Exclusion: PHIL313

Session: Summer Evening

W. Graham

PHIL426 Social Knowledge and Truth

Telephone ID: 2452253
An examination of social questions as the certainty, the problem of skepticism, the scope and limits of human knowledge, the subject of perception, rationality, and theories of truth.

Exclusion: PHIL313

Session: Winter Day

S. Sedyk
PHIL350 Externship

Telephone ID #: 24523053
A study of the views and approaches characteristic of such writers as
Kierkegaard, Husserl, Jaspers, Heidegger
and Sartre.
Exclusion: PHIL220, 321
Session: Winter Day
G. Negel

PHIL550 Symbolic Logic I

Telephone ID #: 24523053
An introduction to formal techniques of reasoning, sentential logic, and
quantification theory or predicate logic.
The emphasis is on understanding and practice in techniques, for example,
for formal analysis of English statements and arguments, and for construction
of clear and rigorous proofs.
Exclusion: (IMPS550), PHIL245
Session: Winter Evening
J.H. Sobel

PHIL565 The Art of Thinking

Telephone ID #: 24523153
A study of methods and techniques for developing effective reasoning and
argument, and an exploration of the premises of thinking that characterize
English thought.
This course aims to develop skill in identifying ambiguities, evaluating
premises, constructing counter-examples, and reconstructing arguments. It examines
such aspects as: informal logic; deductive argument versus persuasion; types of
arguments; and techniques of refutation; common fallacies and how to avoid them.
The focus will be on arguments made in ordinary, as opposed to specialized or
technical, language. A general proficiency in reading and writing English
will be assumed. This course provides an important foundation for Philosophy
students, while offering useful skills for all students, no matter what their programs.
Exclusions: PHILPHIZ247H, TRINX20H
Session: Winter Day
B. Logan

PHIL560 Metaphysics

Telephone ID #: 24526033
A consideration of problems in metaphysics.
Metaphysics is the attempt to see
"how things hang together" in the most
general possible sense of this phrase.
Some of the issues we will cover: the
creation and form of the universe, the
nature of truth, the ground of possibility and
necessity and their relation and the
problem of freedom of the will.
Exclusion: PHIL231
Session: Winter Day
W. Seager

PHIL605 Philosophy of Language

Telephone ID #: 24528033
An examination of various philosophical issues raised by the phenomena
of language. Topics include: how we can understand one another and form concepts;
how words manage to refer to things; and the
evolution of the nature of linguistic meaning.
Session: Winter Day
W. Seager

PHIL805 Foundations of Cognitive Science

Telephone ID #: 24528653
A study of the hypotheses and theories that ground the cognitive science
approach to mental representation and cognition. We will address the
fundamental problems: what is a computational system and how can a
physical system understand language and
thought?
In order to answer these questions, we will study the functionalist theory of
mind, the relationship between syntax and semantics, and the theory of interpretable
automatic formal systems. We will also
examine some of the basic computer architectures. We will conclude by
examining the difference between
natural and artificial intelligence using
symbol systems, and connectionism.
Session: (COG8001Y)
Session: Winter Day
S. Sadrizadeh

PHIL855 Symbolic Logic II

Telephone ID #: 24528513
A continuation of PHIL850.
The natural deduction system studied in
Symbolic Logic I is extended to cover
identity and quantifiers. Special
attention is paid to the restriction of the
identity calculus to "extensional" terms
and formulas. Alternative treatments of
definite descriptions, one that follows
Pregis, the other that follows Russell, are
developed and compared. The text is D.
Kahle, R. Montague and G. Muns.
Techniques of Formal Reasoning.
Session: (IMPS51)
Prerequisite: (IMPS50) PHIL850
Session: Winter Evening
J.H. Sobel

PHLC345 Seminar in Philosophy:

Prebaccalaureate Studies in Philosophy

Telephone ID #: 24538453
A critical examination from a postcolonial perspective of some aspects of
western European philosophy.
How does western European philosophy and religious thought become
shaped by western Europe’s colonization of other parts of the globe? After 1492,
how did western European thinkers perceive and imagine the indigenous
peoples of the Americas? How was this connected to European attitudes toward
Africa, Asia and the east?
We will examine modern philosophy’s ideals of rationality, universalism,
and progress. Reading will include some primary sources in modern
philosophy, and some contemporary works in postcolonial studies.
Prerequisite: Two P.C.E. in Philosophy or
permission of the instructor.
Session: Winter Day
L. Lange

PHLC27F Seminar in Philosophy:

Collaborative Consciousness and the Open Society

Telephone ID #: 24538733
An exploration of the conditions of democracy as a free organization of
personal and social life involving processes for resolving differences.
Topics include freedom, equality, peace,
individuality, education and negotiation.
We will discuss philosophical and cultural
texts, ancient and modern.
Prerequisite: Two P.C.E. in PHL or
permission of the instructor.
Session: Winter Day
W. Graham

PHLC28F Seminar in Philosophy:

An Inclusive Review of Early Modern

Telephone ID #: 24538333
A continuation of PHIL850.
The natural deduction system studied in
Symbolic Logic I is extended to cover
identity and quantifiers. Special
attention is paid to the restriction of the
identity calculus to "extensional" terms
and formulas. Alternative treatments of
definite descriptions, one that follows
Pregis, the other that follows Russell, are
developed and compared. The text is D.
Kahle, R. Montague and G. Muns.
Techniques of Formal Reasoning.
Session: (IMPS51)
Prerequisite: (IMPS50) PHIL850
Session: Winter Evening
J.H. Sobel

PHLC865 Seminar in Philosophy:

Metaphysics

Telephone ID #: 24539853
Discussion of the problems of time, personal identity and the nature of consciousness.
Prerequisite: Two P.C.E. in PHIL or
permission of the instructor.
Session: Winter Day
W. Seager

PHLC51 Seminar in Philosophy: Theories

of Human Nature

Telephone ID #: 24539133
An exploration of theories which provide answers to the question: "What is a human
being?" These answers probe and develop the sorts of catch-phrases definitions to
which we are all accustomed. "Man is a rational animal." "Man is inherently social." "Man is
inherently animal." "Man is inherently social." Theories of human nature bring together
considerations from ethics, political
philosophy, metaphysics and philosophy of
mind (and to acquaintance with some
subset of these areas is required). We will
study a wide variety of works, including
among others, Aristotle, Hobbes,
Rousseau, Marx and Freud.
Prerequisite: PHIL201Y and any two of
PHIL505, PHIL510, PHIL605, PHIL881 or
permission of the instructor.
Session: Winter Day
S. Sadrizadeh

PHIL505 Directed Supervised Research

Projects of advanced research and writing with
a member of the supervising and small
discussion groups.

PHIL545 Directed Supervised Research

Postcolonial Studies in Philosophy

A continuation of the topics of a seminar in
Philosophy.
Prerequisite: PHILC84 in 1998/99

PHIL575 Supervised Research:

Collaborative Consciousness and the Open Society

A continuation of the topics of a seminar in
Philosophy.
Prerequisite: PHILC87 in 1998/99

PHIL585 Directed Research:

An Inclusive Review of Early Modern

Philosophy.
A continuation of the topics of a seminar in
Philosophy.
Prerequisite: PHILC88 in 1998/99
112 Physical Sciences Scarborough

PHLDB9/S Supervised Research: Metaphysics
A continuation of the topics of a seminar in Philosophy. Prerequisite: PHLC9 in 1998/99

PHLDB9/S Supervised Research: Theories of Human Nature
A continuation of the topics of a seminar in Philosophy. Prerequisite: PHLC9 in 1998/99

No research course can be undertaken later than the fourth term following the seminar which is to be prerequisite. Students must notify the instructor at the beginning of term to arrange supervision and work schedules.

Courses Not Offered in 1998/99

PHLBD9/S Philosophy of Art
PHLBS9/S Philosophy of Science
PHLBI9/S Theories of Mind
PHLBF9/S Philosophy of Culture

Physical Sciences Scarborough (B.Sc.)
The Programmes offered by Physical Sciences are a closely related group emphasizing coordination among traditional subject areas. The aim is to provide students with an integrated view of science.

The following Specialist programmes are offered by the Physical Sciences Division at Scarborough:

B.Sc. in Physical Sciences

- B.Sc. in Chemical Sciences
- B.Sc. in Physics
- B.Sc. in Environmental Sciences
- B.Sc. in Mathematics
- B.Sc. in Statistics

Programmes in Physical and Mathematical Sciences

- B.Sc. in Physics

Most programmes cover at least two cognate disciplines and, as a result, 14 to 17, full-course equivalents (F.C.E.'s) must be specified in a 20-course degree programme. Many of the programmes have a common first-year core of requirements, allowing students to keep their options open for subsequent choice of programmes.

Students are generally advised to take their courses in the sequence recommended by their programme of choice. Irreconcilable timetable differences may arise if courses are delayed to later years. However, students should be aware that some courses are offered in alternate years. These courses may be taken in the student's year of study in which they are offered provided prerequisites have been satisfied.

The following Major Programmes are offered by the Physical Sciences Division at Scarborough:

Bloomsbury
Chemistry
Environmental Science
Mathematical Sciences
Physical Sciences

Astronomy (B.Sc.)

Faculty List

C. Dyson, B.Sc., M.Sc., Ph.D. (Toronto) Professor
P. F. Bedinger, B.Sc., M.Sc., (Queen's) Professor
D. M. Taylor, B.Sc., M.Sc., (McMaster) Professor

Discipline Representative: C. C. Dyson (287-7206)

Astronomy is at the same time one of the oldest and one of the most dynamic areas of science. It is basically the attempt to understand the environment in which humanity developed, from the solar system in which we find our direct and recent origins, to the largest distance scales typified by quasars and the big bang, in which we must search for the very origins of structure ranging from the solar system to the largest structures, such as large clusters of galaxies and cosmic voids. The past quarter century has seen startling discoveries, such as the cosmic microwave background radiation that have given us both new understanding of the universe and made us more aware of the problems still facing us in attaining a further understanding. In addition there has recently been a significant trend towards the integration of many of the ideas of modern high-energy physics into astronomy, with particularly interesting developments concerning ideas about the very first seconds in the evolution of our universe.

The full range of modern astronomical topics is covered in the introductory course AST104Y. For students wishing to further their study in astronomy, there are a number of B- and C-level courses, which are integral components of a number of the Physical Sciences Specialist Programmes. In addition, the course AST105Y is intended for students who have taken no previous astronomy, and covers the history of modern astronomy. It is intended to provide a historical perspective on modern astronomy, and by example, an introduction to the evolution of a number of modern scientific areas.

Please refer to the Physical Sciences Scarborough preamble on page 112 for a list of the Programmes offered. Descriptions of these programmes will be found on subsequent pages of this section.

Specialist Programme in Astronomy, Mathematics and Physics

Superintendent: C. C. Dyson, M.J.G. Lee

The Specialist Programme in Astronomy, Mathematics and Physics has been withdrawn. Students currently registered will be allowed to complete the programme (refer to 1995/96 calendar for requirements).

Astrology Introduction to Astronomy

A description of the solar system, sun, stars, galaxies and other phenomena of the Cosmos in which we live.

In this course, the mechanisms which make our sun and other stars shine are explained, and the nature and evolution of our solar system, star systems, galaxies and the Universe as a whole are discussed in a manner suitable for both the science and non-science student. Methods and techniques for exploring the Universe are described, including the recent use of radio telescopes and telescopes on spacecraft, including some near future developments. This is supplemented by a planetarium demonstration and a class trip to the David Dunlap Observatory. Using the College's 12 inch Questar telescope, students also have an opportunity to observe and photograph heavenly bodies if they wish.

Exclusions: AST105, 120, 200

Session: Winter Day

Astro105 Great Moments in Astronomy

An examination of the people, the background and the events associated with some major advances in astronomy.

Emphasis is given to the role of a few key individuals and to how their ideas have revolutionized our understanding of nature and the Universe. Implications of the revised outlook are also discussed. The course will focus on: the first measurement of stellar distances; the prediction of the
existence of Neptune, the discovery of the nature of stars; the proof of the existence of "island universes"; the birth of the theory of stellar structure; the detection of the cosmic fireball; and the expansion of the Universe. The perspective gained is used to assess current astronomical research and its impact on society.

The course is intended primarily for students not in Physical Sciences who, in their second or higher years, wish to acquire an understanding of the origins and significance of our present world view. A term paper dealing in detail with an aspect of one of the topics is required.

Exclusion: AST210
Prerequisite: Four full-course equivalents Session: Winter Evening

ASTB50b Celestial and Classical Mechanics
Telephone ID #: 0125503
A consideration of classical mechanics with particular emphasis on its origins and applications in celestial mechanics.

In particular, this course will examine the study of the motions of bodies in planetary systems. Topics will include central force laws, Kepler's Laws, conservation laws, Lagrange's equations, and an introduction to Hamiltonian mechanics.

Prerequisite: ASTA4Y & MAT4A5Y & [PHYA10F or A215 (PHYA0Y)]
Corequisite: MATB4A1F & MATB4A2S & PHYB15S

ASTC05R05 Research Topics in Astronomy
Telephone ID #: 01130131
An application of individual effort to reading and research on a topic of current interest.

The student will research on some topic of current interest in astrophysics and write a report ("research thesis") on his or her work. The student is expected to gain an appreciation of the current state of knowledge about a particular topic. An 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. Formal lectures are replaced by regular consultation between the student and instructor. It is expected that at least 80 hours of work will be done during the year, following which the mini-thesis will be submitted to the instructor. For more detailed information, contact Dr. Dyer or Kronberg. 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: ASTC25
Prerequisite: [ASTA23Y or AST232] & PHYB15S & permission of the instructor Session: Winter Day

ASTC505 Structure and Evolution of Astrophysical Bodies
Telephone ID #: 0135033
The structure and evolution of astrophysical bodies, particularly stars of various types is considered from its basis in various branches of Physics, and from the observational viewpoint.

A number of areas of Physics come together to explain the structure and stability of stars, including gravitation, thermodynamics, radiative processes, and nuclear energy generation mechanisms. Of particular interest is the fragile balance among the various forces and processes, and failures in this balance will be shown to lead to various evolutionary tracks, leading from the birth of stars to the various possible endpoints for stars, such as neutron stars and black holes. The generation of the atomic elements by the nuclear processes in stars will be considered. There will also be some discussion of cooler objects, such as the planets, where the structure is typically more complicated due to the solid or liquid state of matter in these objects.

Prerequisite: ASTA03Y & ASTB50F & MAT4A5Y
Corequisite: MATB4A1F & MATB4A2S & PHYB15S Session: Winter Day

Courses Not Offered 1998/99

ASTG15 Stellar Systems, Galaxies, and Cosmology
Prerequisite: ASTA03Y & ASTB50F
Corequisite: MATB4A1F & MATB4A2S & PHYB235

NOTE: TIMETABLE CONSTRAINTS USUALLY PRECLUDE SCARBOROUGH C-LEVEL AND ST. GEORGE 400-LEVEL COURSES BEING TAKEN IN THE SAME YEAR.

While courses in Physics do not appear among the prerequisites or co-requisites of most courses in Chemistry, students are urged to take PHYA10F & PHYA215 (PHYA0Y) early in their programmes. Thus, the suggested first-year programme in Chemistry includes CHMA4Y2, MATA4Y2 and [PHYA210F & PHYA215 (PHYA10Y)].

Completion of one of the Specialist or Major Programmes listed below can lead to a number of career opportunities in industry, research, teaching, and government.

Students who are interested in these Programmes are urged to consult with the supervisors early in their academic careers.

Please refer to the Physical Sciences Scarborough programme on page 112 for a list of the Programmes offered. Descriptions of these programmes will be found on subsequent pages of this section.

SPECIALIST PROGRAMME IN BILOGICAL CHEMISTRY
Supervisor: K.A. Henderson (287-215)

First Year:
BOYA0Y Introductory Biology
CHMA0Y General Chemistry
MATA1Y Calculus
[PHYA0F Principles of Classical Systems or PHYA10F]

Second Year:
CHMA215 Principles of Modern Physics

PhD Programmes in Chemistry

I. Research in Physical Chemistry

The PhD Programme in Physical Chemistry is designed to prepare students for research in a wide range of areas, including theoretical and experimental work in atomic, molecular, and condensed matter physics. The programme is flexible, allowing students to choose research areas that are relevant to their career goals. The programme is a four-year commitment, with students expected to complete their research within this period. The programme is highly competitive, and applicants are strongly encouraged to prepare a strong research proposal and to have letters of recommendation from potential supervisors. The programme is open to both domestic and international students, and offers a variety of financial support options, including scholarships and assistantships. The programme is located in the Department of Physics and Astronomy at the University of Toronto, and is closely aligned with the research activities of the Department. The programme is charged with the responsibility of preparing students for careers in research and teaching, and is committed to providing a high-quality educational experience for its students.
MAJOR PROGRAMME IN CHEMISTRY

Supervisor: J. Potter (287-7222)
This Programme places a greater emphasis on the biological aspect of chemistry than does the general Chemistry Major Programme. It is offered for students who are primarily interested in chemistry but also want to study the principles of living systems.
Students should complete the following eight F.C.E.'s:

First Year:

BOYB10Y Introductory Biology
CHMA40Y General Chemistry

Second and Later Years:

BOYB10Y Cell & Molecular Biology
BOYB12S Cell & Molecular Biology, Lab

BOYC12F Biochemistry I: Proteins & Enzymes
BOYC13S Biochemistry II: Bioenergetics & Metabolism
BOYC21S Practical Approaches to Biochemistry

CHMB16F Techniques in Analytical Chemistry
CHMC44F Intermediate Organic Chemistry
CHMC47Y Bio-Organochemistry

And 5 F.C.E. from the following:

CHMB22Y* Physical Chemistry I
CHMB23S Introduction to Inorganic Chemistry

CHMB55S Environmental Chemistry

CHMC11F Principles of Analytical Instrumentation

CHMC12F* Topics in Biophysical Chemistry

CHMC13F Intermediate Inorganic Chemistry

CHMC24S Organic Synthesis

* If CHMB22Y is chosen, MATASA2Y & PHYA10F & PHYA21F are required.

CHMADY General Chemistry

A one-hour lecture per week. One three-hour laboratory and one one-hour tutorial in alternating weeks. Exclusions: CHM312, 135, 136, 137, 150, 151
Prerequisite: OAC Chemistry (or Grade 12 Chemistry and permission of the instructor), OAC Calculus.
Co-requisite: None. MATASA2Y is strongly recommended and is required for some higher level chemistry courses.
Session: Winter Day

CHMB16F Techniques in Analytical Chemistry

Introduction to the principles and methods of chemical analysis and the provision of practical experience in analytical laboratory techniques.

The course deals primarily with quantitative chemical analysis. Classical methods of volumetric analysis, sampling techniques, statistical handling of data are studied, as well as a brief introduction to spectrochemical and instrumental analytical methods.

Two one-hour lectures and a four-hour laboratory every week.
Exclusion: CHMB11Y
Prerequisite: MATASA2Y

CHMB22Y* Introductory Physical Chemistry

Topics in Physical Chemistry with an emphasis on biological applications. The course will discuss fundamental principles using biochemical examples; equilibrium thermodynamics, energy and entropy in relation to chemical and biochemical processes; chemical kinetics, reaction rates and mechanisms; diffusion processes; thermodynamics and kinetics in open systems; advanced (biochemical examples); photochemistry; spectroscopy.

One two-hour lecture.
Exclusion: CHMB11Y
Prerequisites: CHMB22Y & PHYA10F or PHYA21F
Corequisite: MATASA1 or MATASA2Y

Note: MATASA1 is a prerequisite for MATASA2Y. MATASA2Y is required in all CHM programmes.

Session: Winter Day
CHIM310 Principles of Analytical Instrumentation
Telephone ID #: 0283113
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 spectrometry, electrochemical methods and separation techniques will be covered. Two one-hour lectures per week.
Exclusion: CHIM211Y
Prerequisite: CHIM202Y
Recommended: CHIM212Y

CHIM312F Intermediate Inorganic Chemistry
Telephone ID #: 0283133
A more detailed discussion than in CHIM313F of the structure, bonding, spectroscopy and reactivity of main group, transition metal and organometallic 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. Two hours of lectures per week, and a six hour laboratory in alternate weeks.
Exclusion: CHIM311F
Prerequisite: strongly recommended: CHIM211Y, CHIM216F, CHIM222Y, CHIM344Y
Replaces CHIM323S

BGY101F Biochemistry I: Proteins & Enzyme
Telephone ID #: 0417323
A course designed to introduce students to the properties and behaviour of proteins and enzymes.

Beginning with the chemistry of the amino acids the course will analyse the factors involved in determining protein structure and the relationships between protein structure and function. Topics to be covered include: the chemistry and biochemistry of amino acids; the primary, secondary, tertiary and quaternary structures of proteins; protein motifs and protein domains; glycopolypeptides; lipoproteins; protein-protein and protein-DNA interactions; the analysis of the interaction of small molecules with proteins; enzyme kinetics and allosteric enzymes; mechanisms of enzyme action. Three one-hour lectures per week. (Note: the third hour will be used for a combination of lectures, tutorials, and exams.)
Exclusion: [BIOC355Y, BIOC555Y, BIOC100Y, and CHIM344Y]
Session: Winter Day
J.W. Gord

BGYC103 Chemistry II: Bioenergetics & Metabolism
Telephone ID #: 0283133
A course designed to introduce students to cellular metabolism, the process by which living organisms are able to extract and utilize energy from their environment for the maintenance of life.
Topics to be discussed will include: basic principles of bioenergetics; chemiosmotic and oxidative phosphorylation; carbohydrate metabolism including glycogen synthesis and breakdown, the pentose phosphate pathway, glycolysis and the TCA cycle; aspects of the metabolism of lipids and amino acids; metabolic control mechanisms including allosteric control, protein phosphorylation systems, and hormonal regulation of metabolism. The integration of metabolic pathways will be discussed. Three one hour lectures per week.
(NOTE: the third hour will be used for a combination of lectures, tutorials, and exams.)
Exclusion: [BIOC355Y, BIOC555Y, BIOC100Y, and CHIM344Y]
Session: Winter Day
J.W. Gord

BGYC203 Practical Approaches to Biochemistry
Telephone ID #: 0417323
A course designed to introduce students to a range of experimental approaches used in biochemical research.

The course will introduce students to practical and theoretical aspects of a variety of procedures used in the biochemical laboratory, including: spectrophotometry; chromatographic procedures; electrophoresis; the use of radioisotopes; protein purification. In addition to practical experience, students will be expected to solve numerical problems involving these and related procedures.

CHM216F Symmetry in Chemistry
Telephone ID #: 0283133
An essentially non-mathematical approach to the application of symmetry and group theory in chemistry. The course will cover areas such as structure and bonding, electronic and vibrational spectra, and reactivity. Examples will be taken from both organic and inorganic chemistry.
Exclusion: CHIM211F or CHIM312F or CHIM244F or permission of the instructor
Session: Winter Day
J.W. Gord

CHM309Y Introduction to Research
Prerequisite: 4th year research project under the direction of a member of the Chemistry staff, requiring approximately 260 hours of effort.

The objective is to develop familiarity with some of the methods of modern chemical research. The particular research problem pursued will be determined by discussions between the student and the faculty director of the research.
Students are advised that they must obtain consent from the supervising instructor before registering for this course. Exclusions: (CHMD479F) CHMD91H
Prerequisite: Permission of the instructor. Students must complete a project in Inorganic Chemistry and are required to take the advanced laboratory course CHMD43F.
Session: Summer Day, Winter Day

CHMD91F Library Thesis
A report on a selected current topic in chemistry based on literature research and carried out under the direction of one of the chemistry staff. Approximately 250 hours of work are expected.

The objective is to obtain a thorough understanding of a topic of current interest and to prepare a comprehensive and critical report on this subject. The student will also develop familiarity with the techniques of searching the chemical literature. The topic will be selected in consultation with a member of the chemistry staff. Progress will be monitored during periodic consultations with the staff member.

Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusions: (CHMD479F) CHMD91H
Prerequisite: Permission of the instructor. Normally only for individuals who have completed fifteen full-course equivalents and are pursuing one of the Chemistry Programmes.
Session: Summer Day, Winter Day

CHMD91F Library Thesis
Similar to CHMD91F but representing 120 hours of work.

The objective is to obtain a thorough understanding of a topic of current interest and to prepare a comprehensive and critical report on this subject. The student will also develop familiarity with the techniques of searching the chemical literature. The topic will be selected in consultation with a member of the chemistry staff. Progress will be monitored during periodic consultations with the staff member.

Courses to be introduced in 1999/2000
CHMC425 Organic Synthesis
Principles of synthesis organic functional group transformations; compound stereochemistry, spectroscopy and structure elucidation.

Two one-hour lectures per week.
Offered in alternate years in rotation with CHMC475.
Exclusions: CHMC44Y, CHM348
Prerequisite: CHM344Y
Replaces CHMC44Y

CHM160 Analytical Instrumentation
Topics in Biophysical Chemistry

CHM460 Organic Synthesis

Courses Not Offered 1999/99
CHM121 Physical Chemistry

CHM221F Environmental Physical Chemistry

CHM225F Advanced Physical Chemistry

CHM265F Inorganic Chemistry Laboratory

CHM266F Environmental Inorganic Chemistry

CHM267F Inorganic Chemistry

CHM268F Special Topics in Inorganic Chemistry

CHM269F Environmental Analysis

CHM270F Atmospheric Chemistry

CHM271F Special Topics in Environmental Chemistry

Computer Science

B.Sc.

Faculty List
C. Dow, B.Sc., M.Sc., Ph.D., Professor
W. H. Bird, B.E., U.B.C., M.Sc., Ph.D., Professor
V. Hadziabos, B.A. (Princeton), Ph.D. (Harvard), Professor
A. Mendelson, B.Sc. M.S.E., M.A., Ph.D., (Princeton), Professor
M. Melloy, Ph.D. (Carleton Medal), Assistant Professor
N. Cheng, B.Sc., Senior Tutor
G. J. Capil, B.Sc. (U.B.C.), Senior Tutor

Discipline Representative:
A. Mendelson (281-7229)

Computer science is the study of the use of computers to process information. The form of this information may vary widely, from the business person's records or the scientist's experimental results to the linguist's text. One of the fundamental concepts in computer science is the algorithm—a list of instructions that specify the steps required to solve a problem. Computer science is concerned with producing correct, efficient, and maintainable algorithms for a wide variety of applications. It is closely related to 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 also concerned with the inherent difficulty of problems that can be made tractable 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 Programme in Computer Science provides a student for graduate study and for a professional position in the computer field.

Students interested in computer studies should also refer to Specialist and Major Programmes in Cognitive Science.

Please refer to the Physical Sciences section through preprints page 112 for a list of the Programmes offered.
Descriptions of these programs will be found on subsequent pages of this section.

SPECIALIST PROGRAMME IN COMPUTER SCIENCE

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

The Computer Science Programmes have been reorganized into one specialist programme with six different streams.

First Year:

CS1A25 Introduction to Computer Science
MATA5Y Calculus

First or Second Year:

MATA25 Linear Algebra I
MATB24F Linear Algebra II
CSCB700 Fundamental Data Structures and Techniques

Second Year:

CSCB28F File Structures and Data Management
CS1B35 Discrete Mathematics
CS1B33 Computer Organization
MATA81F Techniques of the Calculus
MATB42S Techniques of the Calculus of Several Variables II

Two of:

MATA325 (MATA325P), MATA435, MATA134 (MATA134P), MATA436 (MATA435P), MATB345 (MATA345P), PSCH23P

Students intending to proceed to graduate study in computer science are advised to take MATA435

Third Year:

CS1C25 Principles of Programming Languages
CS1C65 Effective and Efficient Computing
CS1C78 Data Structure and Algorithm Analysis
STAB25F Statistical Introduction to Probability Theory and Mathematical Statistics
Fourth Year:
CSCB09S Methods and Tools for Software Development
CSCC50F Numerical Algebra and Optimization
CSCC51S Numerical Approximation, Integration and Ordinary Differential Equations
CSCC355S Microprocessors

one of:
CSCC54F, 340, 372, 408, D16418, 428, D3434A, 454, 458, 468, 484, 485, 488, DC8489

one of:
CSCC43H, 446, 448, 456, 465, 478, MATC31F, C32F
PSCD03S Computers in Contemporary Society

9. Information Systems Stream

Supervisor: G. Brist (287-7257)
NOTE: Due to enrolment restrictions in required Management courses, registration in this programme is limited. A maximum of ten students will be admitted annually to the second year of the programme. Selection will be based on grades specified for the first year of the programme with a minimum GPA of 2.5. There are 14 courses required for the programme. The courses may be taken in any order different from that listed below, but care must be taken to ensure that prerequisites are satisfied and conflicts avoided.

First Year:
CSCA58FPS Introduction to Computer Science
MATA26Y Calculus
MG411Y Production to Management

First or Second Year:
MATA22S Linear Algebra I
MATC22F Linear Algebra II
CSCB705 Fundamental Data Structures & Techniques

Second Year:
CSCC32F File Structures and Data Management
CSCC33F Discrete Math for Computer Science
CSCC58S Computer Organization
MATB41F Calculus of Several Variables I
MATB42S Calculus of Several Variables II
MTTR23F Managing People in Organizations
STAB22FS Statistics

Third Year:
CSCC24S Principles of Programming Languages
CSCC37F Data Structures and Algorithm Analysis
CSCC340S Information Systems Analysis and Design
CSCC50F Numerical Algebra and Optimization
CSCC54FS Systems Modelling and Simulation (CSCC54G Systems Modelling and Discrete Simulation)
MTRB29F Managing Groups and Organizations
STAB47S Introduction to Probability and Mathematical Statistics

* The prerequisite of MTRB24 is waived for students in this Programme.

Third or Fourth Year:
CSCC30F Computer Society
PSCD03S Computers in Contemporary Society
CSCC80S Software Tools
CSCC34S Data Management Systems
CSCC40FS Software Engineering
MTRB24S Operations Management: A Mathematical Approach**
MTRB74S Analysis for Decision Making**
CSCC45P The Business of Software***

Two of: CSCC372, 458, 465, 468, 484, 485, 488

** Students in this programme may substitute MATB41, CSCC30 or CSCC54 or CSCC35 and STAB47 for the stated prerequisites.

*** This course is offered only in alternate years, and enrollment is restricted. Note that 300-series and 400-series courses must be balanced for and completed at the St. George Campus. Consult the Department of Computer Science Undergraduate Student Handbook.

Fourth Year:
one of: MATC351Y, MATC34P, MATC01S, MATC38F
and two of: MATC035S, CSCC50F, CSCC51S
one other 0.5 P.C.E. in Mathematics

Fourth Year:
one of: MATC15H, MATC44F, MATC22F

Second Year:
CSCB38F File Structure and Data Management
CSCC38S Discrete Mathematics
CSCC383 Computer Organization
MTRB41P Techniques of the Calculus of Several Variables I
MTRB42S Techniques of the Calculus of Several Variables II
PHYB20P Electromagnetism
PHYB21S Electronics
PHYB22S Microprocessors

Third Year:
CSCB09S Methods and Tools for Software Development
CSCC24S Principles of Programming Languages
CSCC50F Numerical Algebra and Optimization
CSCC78F Data Structures and Algorithm Analysis
CSCC38S Microprocessors

Fourth Year:
CSCC38S Microprocessors
CSCC38S Differential Equations
CSCC50F Philosophy of Science

Three Year:
CSCA58FPS Introduction to Computer Science
MATA26Y Calculus
PHYB20P Principles of Classical Physics
PHYB21S Principles of Modern Physics
PHYB22S Principles of Modern Physics

Fourth Year:
CSC51S Numerical Approximation, Integration and Ordinary Differential Equations
CSC64S Effective and Efficient Computing
PHYC21S Structure of Matter
One additional F.C.E. from either C-level and D-level courses in AST, CHM, CSC, EES, MATH, PHY, or STA
PSCD02S Current Questions in Mathematics & Science
or
PSCD03S Computers in Contemporary Science

S. Joint Statistics Stream

Supervisor: M. Evans (287-7274)
The Specialist Programme in Computer Science and Statistics provides a student with the computational and statistical background required in many applications of these fields. The programme prepares students for employment opportunities in business, government and education and for further graduate study.

First Year:
CSCA58FS Introduction to Computer Science
MATA2Y Calculus

First or Second Year:
MATA2S Linear Algebra I
MATA2W Linear Algebra II
CSCB70S Fundamental Data Structures and Techniques

Second Year:
CSCB28F File Structures and Data Management
CSCB38F Discrete Mathematics
CSCB58S Computer Organization
MATH41F Techniques of the Calculus of Several Variables I
MATH42S Techniques of the Calculus of Several Variables II
STAB22F Statistics
STAB47S Introduction to Probability Theory and Mathematical Statistics

Second or Third Year:
CSCB28F File Structures and Data Management
CSCB38F Discrete Mathematics
CSCB58S Computer Organization
MATH42S Linear Algebra II
MATH41F Techniques of the Calculus of Several Variables I
MATH42S Techniques of the Calculus of Several Variables II

Three or Fourth Year:
CSCC24S Principles of Programming Languages
CSCC64S Effective and Efficient Computing
CSCC78F Computer Algorithms
1 half F.C.E. from other C-level statistics courses at Scarborough, CSCC54F, and 300- and 400-level statistics courses on the St. George campus.

Three or Fourth Year:
STAC42S Multivariate Analysis
STAC52S Experimental Design
STAC57S Time Series Analysis
STAC62F Stochastic Processes
STAC67F Regression Analysis
(NOTE: Not all C-level statistics courses are offered every year)

Fourth Year:
CSCC58F Numerical Algebra and Optimization
CSCC51S Numerical Approximation, Integration and Ordinary Differential Equations
PSCD03S Computers in Contemporary Society
1 half F.C.E. from other C-level statistics courses at Scarborough, CSCC54F, and 300- and 400-level statistics courses on the St. George campus.

B. Software Engineering Stream

Supervisor: A. Hendicott (287-7279)
Software engineering is concerned with the timely and cost-effective development of quality software. The programme trains to employment opportunities in software development, and to graduate study in computer science.

First Year:
CSCA58FS Introduction to Computer Science
MATA3Y Calculus
MATH22 Linear Algebra I

First or Second Year:
CSCB70S Fundamental Data Structures and Techniques

Second Year:
CSCB28F File Structures and Data Management
CSCB38F Discrete Mathematics
CSCB58S Computer Organization
MATH42S Linear Algebra II
MATH41F Techniques of the Calculus of Several Variables I
MATH42S Techniques of the Calculus of Several Variables II

Second or Third Year:
CSCB09S Methods and Tools for Software Development
CSCC78F Computer Algorithms
CSCC24S Principles of Programming Languages
CSCC64S Effective and Efficient Computing
STAB22F Statistics
STAB47S Introduction to Probability Theory and Mathematical Statistics

Third or Fourth Year:
CSCC46H Information Systems Analysis and Design (Also 0.5 F.C.E. in Computer Science)
CSCC50P Numerical Algebra and Optimization
CSCC51F Microprocessors
CSCB81P Computer Graphics
CSCD34S Data Management Systems
CSCA68H Software Engineering
PSCD03S Computers in Contemporary Society

One of CSCA58H, CSCA68H, CSCA68H, Another 0.5 F.C.E. in Computer Science

NOTE: 300-series and 400-series courses must be balloted for and completed at the St. George campus. Consult the Department of Computer Science Undergraduate Handbook.

+ Pending approval of the Governing Council of the University

SPECIALIST CO-OPERATIVE PROGRAMME IN COMPUTER SCIENCE

Co-ordinator: Y. Ali (287-7254)
Supervisor of Studies: L. Dyre (287-7206)

The Co-operative Programme in Computer Science is a work-study programme which combines academic studies in computer science and other disciplines in the physical sciences with work placements in public and private enterprises. Two work terms must be completed along with the academic programme. An optional third work term may be included, with permission of the Co-ordinator.

The programme prepares students for permanent employment with government and business enterprises concerned with research and technology as well as for graduate study in computer science. Graduates receive a four-year B.Sc. with a specialist certification in Computer Science.

The Co-operative programme can be taken in conjunction with any of the streams in the Specialist Programme in Computer Science.

Admission to the Programme
a. Applicants from Grade 13 G.C.E. programmes (or equivalent) should indicate their choice of University of Toronto at Scarborough and the Co-operative Programme in Computer Science on their Application for Admission to an Ontario University. They will then be sent a special application form for admission to a co-operative programme.

b. From first-year university: Students accepted by the University and College may apply. The timing of their work placements will depend upon the particular university courses they have already completed.

Admissions are granted on the basis of the applicant's academic performance, background in relevant subjects, and a letter of reference from a high school teacher or university instructor. An interview may be required. Enrolment is limited and only a small number of applicants can be accepted each year.

Decisions about admissions are usually made annually in May and early June. To be considered for the first round of selection, co-op applications must be received by the University no later than April 15. Therefore it is essential that the applicant apply to the University at least six months before this date.

Fees:
Every student in a co-operative programme is required to pay additional fees as established by the University.

This programme requires twenty F.C.E.'s (four years) of study and two work terms of four months each. Exceptionally, with the agreement of the co-ordinator, a third work term may be allowed. Students are eligible for their first work term after their first two years of study. Work placement opportunities are arranged by the Physical Sciences Office, but must be confirmed by students in consultation with all applicable parties.

Performance on work terms will be evaluated by both employer and co-ordinator. Students must also submit a report for each work term for evaluation.
To maintain standing in the programme, to be eligible for a work term, and to receive satisfactory certification upon graduation a student must:
- maintain a cumulative grade point average of at least 3.5
- receive a satisfactory evaluation for work term performance and work term reports
- be registered as a full-time student during study term

Programme outcomes, please refer to the description of the Specialist Programme in Computer Science. Note that courses need not be taken in exactly the indicated order, but the sequence of any alternative ordering is adopted, care must be taken to ensure that prerequisites are satisfied and conflicts avoided.

Each student’s programme requires the annual approval of the supervisor of studies.

Note: Students are individually responsible to ensure that they have correctly completed programme and degree requirements for graduation.

Eligibility for work placements:
To compete for a work term placement a student must be in good standing in the programme and must have completed at least ten F.C.E.’s.

Normally, students return to their studies after each work term (and must be registered to continue after the completion of their last work term).

CSPC01-C05H Computer Science Co-op Work Term
Work terms are an integral part of the co-op curriculum. Practical work experience in an appropriate, related field is alternated with study terms to enhance academic studies and develop professional and personal skills. Work term reports are required at the completion of each work term. Continuation in a co-op programme is based on a student’s ability to meet both the academic and work term requirements. To be eligible for work terms, students must be in good standing in the programme and must have completed 10 courses. Course credit of 0.5 F.C.E. is granted for each four-week work period. Work term credits are in addition to the 20 full-course degree requirements and are graded on a Credit, No Credit system. There are no additional course fees for work terms.

CSCIA59S: The Why and How of Computing
Telephone ID # 8: 07110233
Telephone ID # 9: 07110233
An introduction to computers and how to use them...

This course includes a study of system operations (commands, files, security), common applications (games, word processing, spreadsheets) and problem solving (basic programming concepts). Other applications and topics include data organization, communications, office automation, electronic mail, and Internet tools. Students will do a lot of programming, but the aim of the course is to show how computers are used, not to teach programming. Primarily for non-science students, but may be followed by other CSC courses.

Exclusions: ETC104H, VSC104H. This course may not be taken after or concurrently with any other CSC course. Session (F/S): Winter Day, Winter Evening Session (P): Summer Evening

CSCA69F/69S Introduction to Computer Programming
Telephone ID # 03710163
An introduction to basic concepts and terminology.

Introduction to programming using the "Right Oriented Thinking" language: Conditional statements and loops, arrays and records, operations on strings and numbers, subprograms. Data and program structuring.

This course is intended for students with no prior exposure to computer programming. Students who have sufficient programming experience may enrol in CSCA59S. Consult the instructor or supervisor of studies for guidance and for a copy of the information sheet "Can I Skip Computer Science A09?". Session: CSCA59F, CSCA59SFS, CSCA59FFS, CSCA59FS, CSCA518, CSCA514.

Prerequisites: Grade 12 mathematics Session: Winter Day

CSCA59S Introduction to Scientific Computing
Telephone ID # 07115733
An introduction to the use of computers in the physical and biological sciences. Choice and design of algorithms and the implementation in a high-level computer language, such as C or FORTRAN, 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. The use of database systems for information storage and query and the use of graphical display devices and software for visualization of physical systems will be considered. (Intended primarily for physical and biological science students who do not plan to pursue any of the programmes in computer science or cognitive science.)

Exclusions: CSCA06, A26, A58, 108, 148. Co-requisite: [MATA26 or MATA29 with permission of the instructor] and one A-level science course Session: Winter Day

CSCA69F/69S Introduction to Computer Science
Telephone ID # 07135833
Telephone ID # 07135833
Design and analysis of algorithms, reasoning about programs, their correctness and efficiency. Procedural abstraction and modular design: subprograms, recursion and modules. Data abstraction: data types and data structures. Comparison of several searching and sorting algorithms. Students who have insufficient programming experience must take CSCA06 before CSCA59S. Consult the instructor or supervisor of studies for guidance and for a copy of the information sheet "Can I Skip Computer Science A09?". Session: CSCA59F, CSCA59S. The deadline for "dropping down" is October 15. (The option of "dropping down" is available in the spring, since CSCA59S is not offered in that semester.)

Exclusions: CSCA57, CSCA148, CSCA510. Prerequisites: OAC physics 31/32 & one other OAC in mathematics & sufficient programming experience. Session: Winter Day

CSCB09S Methods and Tools for Software Development
Telephone ID: 03720953
Techniques for programming efficiently by making use of operating-system facilities and standard utilities and software tools. Tools discussed and used are from the UNIX environment using the C programming language. Topics from problem formulation to program implementation. "Shell" programming, networking, interprocess communication, debugging, basic programming, challenging assignments emphasise the importance of good design, programming aptitude and use of appropriate tools.

Prerequisites: CSCA59F or CSCA59SFS or proficiency in C Session: Winter Day

CSCB29F File Structures and Data Management
Telephone ID: 03722833
An introduction to techniques for storing, accessing, and managing long-term data in computer systems. Hardware and software aspects of data processing: processors, storage devices, communications, file I/O control. Techniques for organizing and managing files: serial files, direct files, indexed files, multikey files, integrated files, file systems. Introduction to database management systems with emphasis on relational data base systems.

Exclusion: CSC228. Prerequisite: CSCA59F. Session: Winter Day

CSCB39F Discrete Mathematics for Computer Science
Telephone ID: 03723833
A rigorous treatment of certain aspects of discrete mathematics with applications to computer science. Emphasis on the basic properties and fundamental algorithms concerning integers (including induction, Euclidean algorithm, modular arithmetic), and on logic (including propositional and predicate calculus and simple formal theories). Application to topics such as program correctness, formal program verification, algorithms from graph theory, and elementary set theory.

Exclusion: CSC599F. Prerequisite: CSCA59F Session: Winter Day

CSCB59S Computer Organization
Telephone ID: 03725833
This course is designed to give students an understanding of the operation and the hardware of a modern digital computer. Specific topics include: an introduction to Boolean algebra, the design and implementation of computer memory devices, the organization of a simple microcomputer, and the basic data representation, assembly language, addressing strategies, mechanisms for input and output, the structure of peripheral devices, some case studies of particular machines. There will be four laboratory periods in which students can conduct experiments with digital logic circuits. Enrollment limit: 100.

Exclusion: ETC108. Prerequisite: CSCA59F or CSCA59SFS Session: Winter Day
Environmental Science

Faculty List

R. B. Bryan, B. A. (Dublin), Ph.D. (Sheffield), Professor

N. Tyele, B.Sc. (Leicester), M.Sc. (Memorial University Newfoundland), Ph.D. (East Anglia), D.Sc. (Leicester), Professor

B. Greenwood, B.Sc., Ph.D. (Bristol), Ph.D. Hon. Coursa (Uppsala), Professor

K. W. M. Howard, B.Sc., M.Sc., Ph.D. (Birmingham), Professor

C. Nakagawa, B.Sc., Ph.D., D.Sc. (University College London), Professor

V. Timmer, B.Sc., Ph.D. (University of New Brunswick), Ph.D. (Cornell), Professor

J. A. Westgate, B.Sc. (Reading), Ph.D. (Alberta), Professor

D. D. Williams, B.Sc. (University College North Wales), Dip. Ed. (Liverpool), M.Sc., Ph.D. (Wales), Professor

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

E. B. Williams, B.Sc., Ph.D. (Waite), M.Sc. (Waite), Ph.D. (Toronto), Associate Professor

K. A. Boston, B.Sc., Ph.D. (Guelph), Assistant Professor

R. R. Pichon, B.Sc., M.Sc., Ph.D. (Toronto), Assistant Professor

W. A. Gough, B.Sc., M.Sc. (Toronto), Ph.D. (McGill), Assistant Professor

A. Mohajer, M.Sc. (Florida State), Ph.D. (London), Adj. Associate Professor

Discipline Representative: B. Greenwood (287-7136)

Human Activity is a major cause of environmental change and the rate of that change has accelerated dramatically over the last century. Understanding the dynamics of both natural and anthropogenic environmental change requires knowledge spanning many scientific disciplines. Recent environmental degradation such as surface and subsurface water pollution, air and soil pollution, and deforestation of species, extinction of species and problems of waste disposal are all a result of the lack of understanding of environmental systems and processes. Environmental degradation has an impact not only on human beings but on all species and most natural systems, so that understanding its repercussions approaches technologies from many areas such as biology, ecology, chemistry, mathematics, physics, earth science and so on. Such an integrated approach seeks not only a good understanding of the causes of environmental change and degradation, but also more complete understanding of the mechanisms through which environmental change has an impact on living creatures.

A Special Programme with three Streams: a Major Programme, a Minor Programme and, in addition, a Co-op Special Programme are all available within Environmental Science. The three special streams are: a broadly based study of Environmental Systems and two more narrowly based studies of Environmental Biology and Environmental Chemistry. The Major programme is designed for students who wish to pursue either another Major or Specialist programme in a related discipline. All streams have a large common core of four years, including the interdisciplinarity required, as a change, and periodisation of the study of the environment and allows students to switch between programmes if they wish.

Please refer to the Physical Sciences Scarborough preamble on page 112 for a list of all programmes offered. Descriptions of these programmes will be found under the appropriate programmes in the main text.

SPECIALIST (CO-OPERATIVE) PROGRAMME IN ENVIRONMENTAL SCIENCE

The Co-operative Programme allows students to take any one of three specialist streams in Environmental Science. Each of these streams has a strong basis in the fundamental sciences such as biology, chemistry, mathematics and physics, but emphasizes the environmental sciences such as the earth and atmospheric sciences and ecology. The programme is broadly based for the practising environmental scientist and includes study in the areas of: Environmental Economics and Law; Environmental Impact Assessment; Remote Sensing and Geographic Information Systems; Scientific Computing; Statistics. One of the thrusts of the Specialist programme is the importance of field and laboratory work, which allows students the opportunity to develop skills which are directly useful in the workplace.

The two work placements are integral to the Co-op experience; students will be required to undertake 16-week periods of work placement in positions fitting their interests and skills and future employment intentions. These placements will generally follow completion of the second and third years of study. Assistance will be provided by the Co-ordinator in securing appropriate placements. In addition, a Special Seminar Series is run exclusively for Co-op students. This provides a forum for interaction with environmental scientists from consulting companies, industrial companies, government agencies and non-governmental organisations.

The overall purpose of the programme 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 research and the academic environment. The Co-operative Programme is designed to enable students to develop skills and knowledge in the following areas:

- Environmental Science
- Environmental Economics and Law
- Remote Sensing and Geographic Information Systems
- Scientific Computing
- Statistics

There are obvious linkages between the Co-operative programme in Environmental Science and the Co-op programmes at St. Catharines, such as those in the Environmental Studies and Environment programmes.

Admission to the Programme

Applicants may apply to the programme directly from any high school or may apply as transfer students from college or first year university. After completing work placements for students who receive transfer credit will depend upon the particular university courses completed. When applying, applicants must indicate the special code at the end of each campus programme on the Applications for Admission to an Ontario University. Once the University of Toronto is notified of the applications, candidates are sent an additional co-op application form to complete. To be considered for the first round of selection, co-op applications must be received by the University no later than April 15. Therefore it is essential that the applicant apply to the University at least six weeks prior to this date.

Note that enrolment in the programme is limited. Admission is considered on the basis of the applicant's academic performance, background in relevant subjects, and a letter of reference from high school teacher or university instructor. An interview is required.

Fee

Every student in a co-operative programme is required to pay additional fees as established by the University of Toronto.

For Programme outlines, please refer to the description of the Specialist Programme in Environmental Science below.

SPECIALIST PROGRAMME IN ENVIRONMENTAL SCIENCE

Supervisor of Studies: A.G. Price (287-7327)

This programme is a response to strong student interest in Environmental issues and the new attitudes and demands within society at large. It has a firm base in the traditional environmental disciplines, the earth, atmospheric and ecological sciences, but is built on an excellent grounding in the fundamental sciences of biology, chemistry, mathematics and physics. The acquisition of practical skills through extensive field and laboratory experience is emphasized. The programme is holistic in nature with a common core extending through all years of each of these specialist streams: a broadly based study of Environmental Systems, and two more narrowly based studies of Environmental Biology and Environmental Chemistry.

A list of suggestions for elective courses can be obtained from the Supervisor of Studies.

Environmental Systems Stream

Advisor: W. Gough (287-7245)

Total requirements: 14.0 P.C.E.

Year 1:

EES501S Introduction to Environmental Science
EES206S Introduction to Plant Earth
BGG101Y Introductory Biology
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Year 2:</th>
<th>Year 3:</th>
<th>Year 4:</th>
<th>Year 5:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIM107Y</td>
<td>General Chemistry</td>
<td>or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY110F</td>
<td>The Physics of Classical Systems</td>
<td>or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT126Y</td>
<td>Calculus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT229Y</td>
<td>Introduction to Mathematical Modelling</td>
<td>BGYB50Y</td>
<td>BGYB52S</td>
<td>BGYB53S</td>
<td>BGYB54S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ecology and Evolutionary Biology</td>
<td>Ecology and Evolutionary Biology</td>
<td>Ecology and Evolutionary Biology</td>
<td>Ecology and Evolutionary Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOYB52S</td>
<td>BOYB52S</td>
<td>BOYB52S</td>
<td>BOYB52S</td>
</tr>
<tr>
<td>C6SC57S</td>
<td>Introduction to Scientific Computing</td>
<td>STAB112F</td>
<td>C6SC57S</td>
<td>BOYB52S</td>
<td>BOYB52S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Statistics</td>
<td>Introduction to Scientific Computing</td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>C6MB55S</td>
<td>Environmental Chemistry</td>
<td>and 1.0 F.C.E. from the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>and 1.0 F.C.E. from the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>and 1.0 F.C.E. from the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>and 1.0 F.C.E. from the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESSB03F</td>
<td>Principles of Sedimentology and Stratigraphy</td>
<td>ESSB04F</td>
<td>ESSB05F</td>
<td>ESSB05F</td>
<td>ESSB05F</td>
</tr>
<tr>
<td>ESSB02F</td>
<td>Principles of Geomorphology</td>
<td>and 1.0 F.C.E. from the following:</td>
<td>ESSB03S</td>
<td>ESSB04F</td>
<td>ESSB05F</td>
</tr>
<tr>
<td>ESSB03S</td>
<td>Principles of Climatology</td>
<td>ESSB04F</td>
<td>BGYB53S</td>
<td>C6SC57S</td>
<td>BGYB52S</td>
</tr>
<tr>
<td>ESSB04F</td>
<td>Principles of Hydrology</td>
<td>ESSB05F</td>
<td>BGYB52S</td>
<td>BGYB52S</td>
<td>BGYB52S</td>
</tr>
<tr>
<td>ESSB14S</td>
<td>Principles of Soil Science</td>
<td>ESSB55S</td>
<td>BGYB52S</td>
<td>BGYB52S</td>
<td>BGYB52S</td>
</tr>
<tr>
<td>ESSC03S</td>
<td>Remote Sensing and Geographic Information Systems</td>
<td>ESSC11S</td>
<td>ESSC11S</td>
<td>ESSC11S</td>
<td>ESSC11S</td>
</tr>
<tr>
<td>ESSC04F</td>
<td>Biodiversity and Biogeography</td>
<td>BGYC53S</td>
<td>BGYC53S</td>
<td>BGYC53S</td>
<td>BGYC53S</td>
</tr>
<tr>
<td>ESSC07F</td>
<td>Biodiversity and Biogeography</td>
<td>BGYC53S</td>
<td>BGYC53S</td>
<td>BGYC53S</td>
<td>BGYC53S</td>
</tr>
<tr>
<td>ESSC13F</td>
<td>Environmental Impact Assessment</td>
<td>BGYC53S</td>
<td>BGYC53S</td>
<td>BGYC53S</td>
<td>BGYC53S</td>
</tr>
<tr>
<td>ESSC15S</td>
<td>Research Seminar</td>
<td>and 0.5 F.C.E. from the following:</td>
<td>ESSC15S</td>
<td>ESSC15S</td>
<td>ESSC15S</td>
</tr>
<tr>
<td>ESSC19S</td>
<td>Marine Systems</td>
<td>ESSC15S</td>
<td>ESSC15S</td>
<td>ESSC15S</td>
<td>ESSC15S</td>
</tr>
<tr>
<td>ESSC18F</td>
<td>The Great Lakes</td>
<td>and 0.5 F.C.E. from the following:</td>
<td>ESSC15S</td>
<td>ESSC15S</td>
<td>ESSC15S</td>
</tr>
<tr>
<td></td>
<td>Urban Environmental Problems of the Greater Toronto Area</td>
<td>ESSD02S</td>
<td>ESSD02S</td>
<td>ESSD02S</td>
<td>ESSD02S</td>
</tr>
<tr>
<td>ESSD06F</td>
<td>Contaminant Hydrogeology</td>
<td>ESSD09F</td>
<td>ESSD06F</td>
<td>ESSD06F</td>
<td>ESSD06F</td>
</tr>
<tr>
<td>ESSD11S</td>
<td>Process Hydrology</td>
<td>ESSD10S</td>
<td>ESSD12S</td>
<td>ESSD10S</td>
<td>ESSD10S</td>
</tr>
<tr>
<td>and 1.0 F.C.E. from any other ESS courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Biology Stream</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESSA01S</td>
<td>Introduction to Environmental Science</td>
<td>ESSB01S</td>
<td>ESSB01S</td>
<td>ESSB01S</td>
<td>ESSB01S</td>
</tr>
<tr>
<td>ESSA06F</td>
<td>Introduction to Plant Earth Science</td>
<td>ESSA07Y</td>
<td>ESSA07Y</td>
<td>ESSA07Y</td>
<td>ESSA07Y</td>
</tr>
<tr>
<td>BOYB10Y</td>
<td>Introductory Biology</td>
<td>ESSA06S</td>
<td>ESSA07S</td>
<td>ESSA07S</td>
<td>ESSA07S</td>
</tr>
<tr>
<td>CHIM107Y</td>
<td>General Chemistry</td>
<td>ESSA07F</td>
<td>ESSA07F</td>
<td>ESSA07F</td>
<td>ESSA07F</td>
</tr>
</tbody>
</table>

Environmental Stream

**Advisor:** D.D. Williams (287-7423)

**Total requirements:** 13.5 F.C.E.
MINOR PROGRAMME IN ENVIRONMENTAL SCIENCE
Advisor: A. G. Price (227-7327)
Total requirements: 4.0 F.C.E.

The Minor Programme is designed to provide an insight into the basic principles of Environmental Science and its application to current environmental issues of importance to society. 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.

Year 1:
EESA01S Introduction to Environmental Science
EESA06F Introduction to Planet Earth

Year 2:
Any 1.5 F.C.E. from the following:
EESA06F Principles of Sedimentology and Stratigraphy
EESA09F Principles of Geomorphology
EESA01S Principles of Climatology
EESA06F Principles of Hydrology
EESA06S Principles of Soil Science

Year 3:
1.5 F.C.E. of any other EES courses of which 1.0 F.C.E. must be at the C- or D-level.

EESA01S Introduction to Environmental Science
Telephone ID #: 36310153
An introduction of subject matter and concepts from diverse scientific disciplines to provide a coherent framework for analyses of environmental issues, environmental management and policy development.
This course provides an examination of changes in scientific understanding of the environment and the developments which have led to the current critical state of the environment. The processes of human impact on ecosystems functioning and the environmental sustainability of societal patterns are critically analyzed in local, regional and global contexts. Critical current issues; evidence of environmental degradation; compatibility of scientific method and regulatory responsibility; specific case histories. Two hours of lectures per week and two hours of practical work every second week. Session: Winter Day

A.G. Price

EESA06S Environmental Hazards
Telephone ID #: 36310353
An investigation of the geological background and possible solutions to major hazards in the environment.
Environmental hazards to be studied include: landslides, erosion, earthquakes, volcanic eruptions, tsunamis, floods, glacial change, climate change, subsidence and the disposal of toxic wastes. Of interest to a wide range of students in the life, social, and physical sciences: an opportunity for the non-specialist to understand headline making geological events of topical interest. No prior knowledge of the Earth Sciences is required. Two hours of lectures per week. Session: GLG102 (GLG103)
Session: Winter Evening
Faculty

EESA06F introduction to Planet Earth
Telephone ID #: 36310453
The composition, structure and origin of the Earth and the physical and biological processes that operate in and on it, the history of the Earth as revealed in the rock record. The flows of energy and mass through natural systems, and the impact of human activity on system processes, with particular reference to land use change, soil degradation and atmospheric pollution. Exclusion: (EESA02, EESA03), GJR01, GLG010, 140, 141, 2PC150
Session: Winter Day
N. Eyles (F.G. Price)

EESA09F Principles of Sedimentology and Stratigraphy
Telephone ID #: 36320313
An analysis of the wide range of sedimentary environments found on planet earth and their stratigraphic record.
Sediments and sedimentary rocks provide a record of environmental change over the last 5000 million years. Techniques for describing and dating sedimentary strata will be demonstrated during local field excursions. Of interest to students in life and physical sciences. Exclusion: GLG101 (GLG102)
Prerequisite: EESA06F (EESA06P)
Session: Winter Day
N. Eyles

EESA06P Principles of Geomorphology
Telephone ID #: 36320223
The physical and chemical processes responsible for the erosion of the surface of the earth, and the recognition and understanding of the world's landscapes and their development. Examination of form, processes and evolution of landscapes through time. The mechanics of movement, transport and deposition of mass by rivers, wind, glaciers, water waves, gravitational stresses, etc., which control the evolution of surface morphology.
The field excursions and laboratory exercises will allow students to apply theory to natural systems and to understand the dynamics of one idealized geomorphic system. Two hours of lectures per week and two hours of practical work every second week. Exclusion: (GGC165)
Prerequisite: EESA01P or EESA06F (EESA04P) (GJA056), IDS020FS, EESA01S (EESA01SR), IDS020FS (GJA056)
Session: Winter Day
B. Greenwood

EESA06S Principles of Climatology
Telephone ID #: 36330353
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.
Tutorials include the accessing and analysis of meteorological and climatological data through the internet. Two hours of lectures and two hours of practical work per week. Exclusion: GGC203, GGC312 (GGR019), GGR019 or an A-level science course with permission of the instructor.
Session: Winter Day

W. Graham

EESA06F Principles of Hydrology
Telephone ID #: 36320433
The study of water and energy balance as considered as the basis for the management of the flows of water through the terrestrial part of the hydrologic cycle, and the measurement of the components of both balances is described.
Conventional or operational hydrologic processes and the application of these techniques in rainfed fields. Emphasis is placed on the measurement and estimation of water fluxes at the drainage basin scale.
Two hours of lectures and one hour laboratory per week. Session: Winter day
R. Fulltrum

Objectives include a better understanding of how water moves through natural systems, the ways in which human activity changes hydrologic process, and the kinds of modelling used in planning exercises.
Two hours of lectures per week and one hour of practical work on alternate weeks. Exclusion: (GGR228), (GGR238), GGR326
Prerequisite: EESA01FS or EESA06F (EESA01S) (GJA056), IDS020FS, EESA01S (EESA01SR), IDS020FS (GJA056)
Session: Winter Day
A.G. Price

EESA06F Principles of Soil Science
Telephone ID #: 36320533
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. Two hours of lecture per week and two hours of practical work every second week. Exclusion: (GGR227), (GGR325)
Prerequisite: Any A-level course in Environmental Science or IDS015
Session: Winter Day
R. Bolton

EESA06S Biotechnology - Environmental Implications
Telephone ID #: 36320593
An examination of the environmental implications of the application of recent advances of biotechnology.
Topics to be studied include: fundamentals of biotechnological techniques, current applications, the impact of the bioremediation of contaminated water, soil and air, the mining industry, biotechnological agents in agriculture, forestry and public health arenas. Ecological concerns over the use of genetically engineered organisms will be examined, and the potential environmental effects will be discussed.
Exclusion: EASA06F, BIA040Y
Two hours of lectures and one hour laboratory per week. Session: Winter day
R. Fulltrum
Applications of GIS technology in the management of environmental problems. Several case studies and databases will be examined to demonstrate GIS applications in both regional (e.g., waste management in the Metro Toronto region, acid mine drainage in Northern Ontario) and global environmental concerns (e.g., deforestation in equatorial regions, global climate warming, world population growth). Extensive hands-on experience with GIS software (UNIX, SPSS, ArcInfo) and hardware devices (workstation, digitizer, plotter). Two hours of lectures and two hours of practical work per week.

Prerequisites: EES608F & 1.5 F.C.E.'s in B- or C-level EES courses.

Session: Winter Evening

M. Dougall

EES620F Groundwater

Groundwater represents the world's largest and most important fresh water resource. This basic course in hydrogeology introduces the principles of groundwater flow and storage and shows how a knowledge of these fundamental topics is essential for safeguarding groundwater resources.

Prerequisites: EES608F & 1.5 F.C.E.'s in B- or C-level EES courses.

Session: Winter Evening

M. Dougall

EES615F Environmental Impact Assessment

Telephone ID # 3633133

A short course of five lectures plus two tutorials. The course introduces the principles of impact assessment, and the process of preparing an environmental impact assessment report. Examples from real-life cases from forestry, biology and land use studies are also used.

Prerequisites: GGR393, INT220, GGR331

Session: Winter Day

D. Patock

EES625F Introductory Agroforestry

Telephone ID # 3633133

A course in the management and development of agroforestry systems. Examples from real-life cases from forestry, biology and land use studies are also used.

Prerequisites: GGR393, INT220, GGR331

Session: Winter Day

D. Patock

EES620F Soil Erosion Control

Telephone ID # 3633133

A course in the management and development of agroforestry systems. Examples from real-life cases from forestry, biology and land use studies are also used.

Prerequisites: GGR393, INT220, GGR331

Session: Winter Day

D. Patock

EES625F Introductory Agroforestry

Two hours of lecture and two hours of tutorials per week.

Exclusion: FOR295

Prerequisites: EES608F and either 2 additional F.C.E.'s in EES or permission of the instructor.

Session: Winter Day

A. Keyes

EES615F The Great Lakes: A Lacustrine System

Telephone ID # 3633133

North America is endowed with eight of the twelve largest freshwater lakes in the world. The hydrodynamics and hydrochemistry of the Canadian Great Lakes are used as examples for 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, seasonally circulation, heat budgets, Longshore circulation, seiches, waves and wave groups. Morphological forms and morphodynamical behavior as a result of sediment transport processes are examined particularly with respect to coral and other processes. Specific anthropogenic influences will be illustrated using case studies from the local environment. Field exercises will be an integral part of the course.

Two hours of lectures and two hours of tutorials per week per week.

Prerequisites: EES608F

Recommended Course: EES503S

Session: Winter Day

B. Greenwood / W. Gough

EES615F The Great Lakes: A Lacustrine System

Telephone ID # 3633133

North America is endowed with eight of the twelve largest freshwater lakes in the world. The hydrodynamics and hydrochemistry of the Canadian Great Lakes are used as examples for 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, seasonally circulation, heat budgets, Longshore circulation, seiches, waves and wave groups. Morphological forms and morphodynamical behavior as a result of sediment transport processes are examined particularly with respect to coral and other processes. Specific anthropogenic influences will be illustrated using case studies from the local environment. Field exercises will be an integral part of the course.

Two hours of lectures and two hours of tutorials per week per week.

Prerequisites: EES608F

Recommended Course: EES503S

Session: Winter Day

B. Greenwood / W. Gough

EES615F The Great Lakes: A Lacustrine System
SCRIP5F Urban Environmental Problems of the Greater Toronto Area
Telephone ID #: 36323253

Urbani areas at 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 programs, but is also directly relevant to business and management students. Two hours of lectures and one hour of practical/tutorial/ seminar work per week.

Exclusion: EESC507

Prerequisites: 10 F.C.E.’s in an EES programme, or permission of the instructor.
Session: Winter Day
W. Elson

SCRIP65F Field Camp II
This field camp will familiarize students with geological settings and modern environments. Designed for students in the Environmental Systems Stream, but students in other environmental streams may register. The course is normally taken at the end of 2nd Year (May) or just before the beginning of the 3rd Year (September) in conjunction with EESC507.

Exclusion: EESC505

Prerequisites: Two level EES courses. Session: Winter Day
J. Westgate

SCRIP66H Advanced Readings in Environmental Science
An advanced supervised readings course which can be taken in any term with the permission of an instructor and the Supervisor of Studies. Students will follow a structured reading course program in any area of Environmental Science agreeable to their advisor and approved by the Supervisor of Studies.

Prerequisites: A minimum of 6 F.C.E.’s in Environmental Science with permission of the instructor and Supervisor of Studies.

Courses Not Offered 1998/99

SCRIP70F Introduction to Geophysics
Exclusion: EESC711

Prerequisites: EESC307 or permission of the instructor

Physical Sciences / Environmental Science

SCRIP10E Bio-Crystallography
Exclusion: BIOC201

Prerequisites: (BIOC201 or BIOC204) or (EESC206 or any 0.5 F.C.E. B- or C-level Biology or Environmental Science course.)

SCRIP10G Coastal Geomorphology
Exclusion: EGC125

Prerequisites: EESC101 or EGIS101

SCRIP10H Global and Palaeoclimatic Geomorphology
Exclusion: EGC106, EGC107

Prerequisites: EESC101 or EGIS101

SCRIP11E Physical Oceanography and Limnology
Exclusion: MATH256 & PHY110 or PHY112 or EESC101

Prerequisites: EESC101

SCRIP12E Marine Systems
Exclusion: EESC125

Prerequisites: EESC125

Recommended: EESC125

SCRIP12S Environmental Geophysics and Subsurface Exploration Techniques
Exclusion: EESC125

Prerequisite: EESC125

SCRIP13F Hydrogeology
Prerequisites: CHMB555 or CHMC555

SCRIP14F Sedimentary Systems
Exclusion: EGC125

Prerequisites: EESC125 or EGC125

SCRIP111 Geophysical Hydrology
Exclusion: EGC125

Prerequisite: EESC111

SCRIP129 Environmental Hazard Assessment
Prerequisite: EESC129 or permission of the instructor
Mathematics

Supervisor: E. Moore (287–7677)
The Specialist Programme in Mathematics is designed to give students a thorough grounding in the main areas of Mathematics, together with an understanding of the close relationship between Mathematics and other Sciences. It is aimed at students who may be interested in teaching, law, government or industry, or who may decide to pursue a career in research.

(This programme is compatible to the Specialist Programme in Mathematics and Applications on the St. George Campus.)

First Year:

CSCA51F Introduction to Computer Science
MATA24F Linear Algebra I
MATA25F Calculus
PHYS21F Principles of Classical Physics
or
PHYS21S Principles of Modern Physics

First or Second Year:

CSCB70S Fundamental Data Structures and Techniques

Second Year:

MATH24F Linear Algebra II
MATH25F Rings and Fields
MATH24F Topics of the Calculus of Several Variables I
MATH25F Topics of the Calculus of Several Variables II
MATH24S Introduction to Analysis
MATH24S Statistics

Second or Third Year:

MATH25S Groups and Symmetry
MATH23S Classical Plane Geometry and their Transformations
or
MATH25S Introduction to Number Theory

Third or Fourth Year:

MATH24F Ordinary Differential Equations
MATH24F Complex Variables
MATH25S Complex Analysis II

Second or First Year:

PHYS21S Principles of Modern Physics
or
PHYS21S Dynamics of Classical Systems
PHYS21S Principles of Modern Physics

SPECIALIST PROGRAMME IN MATHEMATICS AND STATISTICS

Supervisor: M. Evans (287-7274)
The Specialist Programme in Mathematics and Statistics provides a student with the mathematical and statistical background for a sound understanding of statistical theory and practice. The Programme prepares students for employment opportunities in business, government and education and for graduate study.

First Year:

MATH24S Linear Algebra I
MATH24S Calculus
PHYS21S Introduction to Computer Science

Second Year:

MATH24S Linear Algebra II
MATH24S Complex Variables
MATH24S Principles of Modern Physics
PHYS21S Principles of Modern Physics

SPECIALIST PROGRAMME IN PROBABILITY, THEORY AND MATHEMATICAL STATISTICS

Supervisor: E. Moore (287-7677)
The Specialist Programme in Probability, Theory and Mathematical Statistics is designed to give students a thorough grounding in the main areas of Mathematics, together with an understanding of the close relationship between Mathematics and other Sciences. It is aimed at students who may be interested in teaching, law, government or industry, or who may decide to pursue a career in research.

(This programme is compatible to the Specialist Programme in Mathematics and Applications on the St. George Campus.)

First Year:

CSCA51F Introduction to Computer Science
MATA24F Linear Algebra I
MATA25F Calculus
PHYS21S Principles of Classical Physics
or
PHYS21S Principles of Modern Physics

First or Second Year:

CSCB70S Fundamental Data Structures and Techniques

Second Year:

MATH24S Introduction to Combinatorics
MATH24S Graph Theory and Algorithms for its Applications
CSCE21S Numerical Approximation, Integration and Ordinary Differential Equations
1.0 F.C.E. from MAT at B+, C-, or D-level.

Fourth Year:

PSCD03S Current Questions in Mathematics and Science
or
PSCD03S Computers in Contemporary Society

NOTE: PSCD03S is a required course for ETP students
Recommended course: PHYS21S

STAB47F Introduction to Probability Theory and Mathematical Statistics

MATC35S Chaos, Fractals and Dynamics
MATC38S Introduction to Real Analysis

MATC44F Introduction to Combinatorics
MATC21F Graph Theory and Algorithms for its Applications
CSCE21S Numerical Approximation, Integration and Ordinary Differential Equations

Second Year:

MATB24F Linear Algebra II
MATB24F Multivariate Calculus I
MATB24F Multivariate Calculus II
MATB24F Introduction to Analysis
MATC35F Chaos, Fractals and Dynamics
MATC38S Introduction to Real Analysis

MATC21F Graph Theory and Algorithms for its Applications
CSCE21S Numerical Approximation, Integration and Ordinary Differential Equations

STAB47S Introduction to Probability Theory and Mathematical Statistics

Third Year:

MATB44F Ordinary Differential Equations
MATC46S Differential Equations
StAC375, STAC375, STAC375, STAC375, STAC375, STAC375
1 half F.C.E. from Mathematics
1 half F.C.E. from Mathematics
1 half F.C.E. from Mathematics

Fourth Year:

MATC33S Introduction to Analysis
MATC33S Chaos, Fractals and Dynamics
MATC33S Introduction to Real Analysis

MATC44F Complex Variables
MATC46S Complex Analysis II
1 additional Mathematics half F.C.E.
StAC375, STAC375, STAC375, STAC375, STAC375
StAC375, STAC375, STAC375, STAC375
PSCD03S Current Questions in Mathematics and Science
or
PSCD03S Computers in Contemporary Society

1 half F.C.E. from C-level Statistics course at Scarborough, CSCE54F, 300- and 400-level Statistics courses on the St. George campus.
### Computer Science

**Supervisor:** G. Capit (287-7253)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC28F</td>
<td>Introduction to Computer Science</td>
</tr>
<tr>
<td>MATA22S</td>
<td>Linear Algebra I</td>
</tr>
<tr>
<td>MATA24F</td>
<td>Linear Algebra II</td>
</tr>
<tr>
<td>MATA26Y</td>
<td>Calculus</td>
</tr>
<tr>
<td>CISC28F</td>
<td>File Structures and Data Management</td>
</tr>
</tbody>
</table>

### Mathematics

**Supervisor:** H. Roseblath (287-7508)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATA22Y</td>
<td>Calculus</td>
</tr>
<tr>
<td>MATA22S</td>
<td>Linear Algebra I</td>
</tr>
<tr>
<td>MATE24F</td>
<td>Linear Algebra II</td>
</tr>
<tr>
<td>CISC28F</td>
<td>Introduction to Computer Science</td>
</tr>
<tr>
<td>CISC28F</td>
<td>Fundamental Data Structures and Techniques</td>
</tr>
<tr>
<td>MATA24F</td>
<td>Techniques of the Calculus of Several Variables II</td>
</tr>
<tr>
<td>CISC28F</td>
<td>Statistics</td>
</tr>
</tbody>
</table>

### Discrete Mathematics

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCB23F</td>
<td>Introduction to Computer Science</td>
</tr>
<tr>
<td>CSCB25S</td>
<td>Fundamental Data Structures and Techniques</td>
</tr>
<tr>
<td>MATA22Y</td>
<td>Calculus</td>
</tr>
<tr>
<td>MATA22S</td>
<td>Linear Algebra I</td>
</tr>
<tr>
<td>MATE24F</td>
<td>Linear Algebra II</td>
</tr>
<tr>
<td>CISC28F</td>
<td>File Structures and Data Management</td>
</tr>
</tbody>
</table>

### Statistics

**Supervisor:** M. Evans (287-7274)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC28F</td>
<td>Introduction to Probability Theory and Mathematical Statistics</td>
</tr>
<tr>
<td>MATA22Y</td>
<td>Calculus</td>
</tr>
<tr>
<td>MATA22S</td>
<td>Linear Algebra I</td>
</tr>
<tr>
<td>MATE24F</td>
<td>Linear Algebra II</td>
</tr>
</tbody>
</table>

### Computer Science

**Supervisor:** G. Capit (287-7253)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC28F</td>
<td>Introduction to Computer Science</td>
</tr>
<tr>
<td>MATA22S</td>
<td>Linear Algebra I</td>
</tr>
<tr>
<td>MATE24F</td>
<td>Linear Algebra II</td>
</tr>
<tr>
<td>CISC28F</td>
<td>Calculus</td>
</tr>
<tr>
<td>CISC28F</td>
<td>File Structures and Data Management</td>
</tr>
</tbody>
</table>

### MAT245 Calculus B

**Second term content of MAT245:** The final examination includes topics covered in MAT245. Offered in the Summer Sessions only; students who have not previously enrolled in MAT245 will NOT be allowed to enroll in MAT245. MAT245 together with MAT245 is equivalent for program and MAT Prerequisites: MAT245.

**Exclusions:** MAT245 never completed.

**Exclusions:** MAT24Y, MAT30, 133, 134, 135, 137, 139, 149

### MAT246 Calculus

**Telephone ID:** 20412353


**Exclusion:** MAT240, MAT213

**Prerequisite:** Calculus + A & G

### MAT248 Calculus

**First term content of MAT248:** Students in academic difficulty in MAT248 may withdraw from MAT246 and enroll in MAT248. Offered in the Summer Sessions only; students who have not previously enrolled in MAT248 will NOT be allowed to enroll in MAT248. MAT248 is equivalent for program and MAT prerequisites to MAT245.

**Exclusions:** MAT245 never completed.

### MAT240, MAT250

**Exclusions:** MAT240 never completed.

### MAT24Y Calculus

**Telephone ID:** 20412663

This course includes limits and continuity, derivatives, related rates, extremum problems, graph sketching. Newton's method, indeterminate and definite integrals, numerical integration. Taylor approximation and differential equations.

Students must have an approved calculator with memory and the exponential logarithmic and trigonometric functions and their inverses.

### MAT242Y Calculus

**Introduction to Optimization**

**Telephone ID:** 20412865

Areas to be covered include: R^n as a model space, economics, constraints, functions of one and several variables, graphs. Derivatives, partial derivatives, differentials, rules for differentiation in several variables including chain rule, higher derivatives. Exponential and logarithmic, geometric series, discrete and continuous interest. One variable optimization, related rates, relative extrema, graph sketching, word problems. Linear programming.

Exclusions: MAT242Y

**Session:** Winter Day

### MAT242B Calculus B

**Second term content of MAT242B:** The final examination includes topics covered in MAT242B. Offered in the Summer Sessions only; students who have not previously enrolled in MAT242B will NOT be allowed to enroll in MAT242B. MAT242B together with MAT242B is equivalent for program and MAT Prerequisites: MAT242B.

**Exclusions:** MAT242B never completed.

**Exclusions:** MAT24Y, MAT30, 133, 134, 135, 137, 139, 149

### MAT245 Calculus B

**Telephone ID:** 20412353


**Exclusion:** MAT240, MAT213

**Prerequisite:** Calculus + A & G

### MAT248 Calculus

**First term content of MAT248:** Students in academic difficulty in MAT248 may withdraw from MAT246 and enroll in MAT248. Offered in the Summer Sessions only; students who have not previously enrolled in MAT248 will NOT be allowed to enroll in MAT248. MAT248 is equivalent for program and MAT prerequisites to MAT245.

**Exclusions:** MAT245 never completed.

### MAT240, MAT250

**Exclusions:** MAT240 never completed.

### MAT24Y Calculus

**Introduction to Optimization**

**Telephone ID:** 20412865

Areas to be covered include: R^n as a model space, economics, constraints, functions of one and several variables, graphs. Derivatives, partial derivatives, differentials, rules for differentiation in several variables including chain rule, higher derivatives. Exponential and logarithmic, geometric series, discrete and continuous interest. One variable optimization, related rates, relative extrema, graph sketching, word problems. Linear programming.

Exclusions: MAT242Y

**Session:** Winter Day
MAT252F Groups and Symmetry
(Formerly MATB3I)
An introduction to the rudiments of group theory illustrated extensivley via the notion of euclidean geometry. Thus throughout the presentation, emphasis is placed on concrete examples, often geometrical in nature, so that finite rotation groups of the planar solids, the seven finite groups and the 17 wallpaper groups are examined in detail along side theoretical considerations such as subgroups and Lagrange's theorem, quotient groups and homomorphisms, the Sylow theorems, finite simple groups and finite abelian groups.
Exclusion: (MATB3I), MAT302
Prerequisite: MAT252
Co-requisite: MATB24
Session: Winter Day

MATC45F Introduction to Number Theory
Telephno ID: 2043353
(Formerly MAT370)
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: (MATB70), MAT315
Prerequisite: MAT26 & MATB24, (MATA00)
Session: Winter Day

MATC32F Graph Theory and Algorithms for its Applications
Telephno ID: 2043323
Graphs, subgraphs, isomorphism, trees, connectivity, Euler and Hamiltonian properties, matchings, vertices and edge colorings, network flows and strongly regular graphs. A selection of applications to such problems as computer science: timetableing, personnel assignment, task form scheduling, traveling salesmen, inventory scheduling, experimental design and finite geometries. Explicit algorithms and their computational complexity will be discussed whenever feasible.
Exclusion: (MCC329YS)
Prerequisite: (MATB3I) or (CSC3387YS) & at least one other B-level course in Mathematics or Computer Science
Session: Winter Day

MATC34F Complex Variables
Telephno ID: 2043343
(Formerly MATC600)
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: (MATC600), MAT344
Prerequisite: MATB42 & MATB43

MATC465F Differential Equations
Telephno ID: 2043453
(Formerly MATC56)
Sturm-Liouville problems, Green's functions, special functions (Bessel, Legendre), partial differential equations of second order, separation of variables, integral equations, Fourier transform, stationary phase method.
Exclusion: (MATC56), MAT346
Prerequisite: MATB44 & MATB43
Co-requisite: MATB42

MATC655 Complex Analysis II
Telephno ID: 2043553
Applications of complex analysis to geometry, physics and number theory.
Fractional linear transformations and the Lorenz group. Solution to the Dirichlet problem by conformal mapping and the Poisson kernel. The Riemann mapping theorem. The prime number theorem.
Prerequisite: MATC600/S
Session: Winter Day

MATC11F Rings and Fields
Theory of functions of one complex variable, analytic and meromorphic functions, covering the standard topics of integral calculus, complex variables, power series, residues, conformal mappings, polynomial rings and factorization, irreducibility in domains (polynomial and Euclidean domains); extension fields. These concepts are then applied to geometric constructions (i.e. impossibility of constructing angle trisectors by ruler and compass), finite fields and finite projective planes, (Sylow, Artin). (Exclusion: (MATB32), MAT101)
Prerequisite: MATB24
Co-requisite: MATB24

MATD10F/SH Readings in Mathematics
Independent study under the direction of a faculty member.
Prerequisite: A GPA of 2.5 or more and consent of the instructor.
MAT901SH Reading in Mathematics II
Independent study under the direction of a faculty member.
Prerequisite: A GPA of 2.5 or more and consent of the instructor.

Courses Not Offered in 1998/99
MAT244 Linear Algebra II
Exclusion: MAT243
Prerequisite: MAT233, MAT234

MAT200 Geometry I
Exclusion: MAT205
Prerequisite: MAT104
Co-requisite: MAT91PHS

MAT258H Classical Plane Geometries
and their Transformations
Exclusion: MAT358, MAT352
Prerequisite: MAT252
Co-requisite: MATC20

MATC05 Geometry II
Exclusion: MAT255
Prerequisite: MAT250

MATC1SH Combinatorics
Prerequisites: MATB44F/S or
(CSCB31) & at least one other
3-level course in mathematics or
computer science

MATC3S5 Chaotic Fractals and
Dynamics
Exclusion: MATC01, MATC335
Prerequisite: MATB43

MATC09 Introduction to Real Analysis
Exclusion: MAT338
Prerequisite: MATB2 &
MATB43

MATC44F Introduction to
Combinatorics
Exclusion: MATC31, MATC34
Prerequisite: MATB24

MATC46F Calculus II
Exclusion: MAT300, 447
Prerequisite: MATB1F/S or
(MATB1F/S)

MATC58Y Real Analysis I
Exclusion: MATC58Y, MATB338, 350
Prerequisite: MATB12F/S &
MATB44F/S &
MATB54F/S

MATC60F Complex Analysis I
Exclusion: MATC33, 357
Prerequisite: MATB44F/S

MATC61F Differential Geometry I
Exclusion: MATC4L, MAT63
Prerequisite: MATB43

MATB21S Principles of Modern
Physics
or
In 1998:

MATB21P Principles of Modern
Physics

Interdisciplinary courses are offered in the
Physical Sciences Division under the PSC
designation. They are designed to be
taken by students with a broad interest in
Physical Sciences. Most of the Specialist
programmes offered by the disciplines of
Physical Sciences require one or more PSC
courses.

The Division offers an interdisciplinary
programme with a number of courses focused
towards the Mathematical and Physical
Sciences respectively. This programme provides an excellent
opportunity to combine studies from a
number of disciplines in the area of
Physical Sciences.

SPECIALIST PROGRAMME IN
PHYSICAL AND MATHEMATICAL
SCIENCES

This programme provides a framework of
courses in the Physical Sciences based
upon a firm Mathematical foundation.
There are two streams of the programme
with a number of courses that are common
between them. The Mathematical Sciences
stream provides students with a thorough
 grounding in the main areas of
Mathematics, together with an
understanding of the close relationship
between Mathematics and other Science
areas such as Astronomy, Physics,
Statistics and Computer Science. The
Physical Sciences stream places a greater
emphasis on Physics, but also establishes
the importance of a solid Mathematical
background in the Physical Sciences. The
Programme prepares students for careers in
teaching, industry, and government and
for further studies at the graduate level.

A Mathematical Sciences Stream

Supervisor: E. Moore (287-7267)

First Year:

ASTA05Y Introduction to Astronomy

CISC1PS Introduction to Scientific
Computing

or

CISC36Y** Introduction to Computer
Science

MATJ23S Linear Algebra I

MATJ26Y Calculus

PHYJ20F Principles of Classical
Physics

Second Year:

ASTB50F Celestial and Classical
Mechanics

MATB24F Linear Algebra II

MATC11P Rings and Fields

MATC15G Groups and Symmetry

MATB14F Techniques of the Calculus
of Several Variables I

MATB15S Techniques of the Calculus
of Several Variables II

PHYB20F Classical and Quantum
Waves

STAB22F Statistics

and any three of:

CSCB35S* Discrete Mathematics for
Computer Science

CSCB35S* Fundamental Data Structures
and Techniques

MATC11F Rings and Fields

MATC25S Classical Plane Geometries
and their Transformations

MATC15H Introduction to Number
Theory

PHYB15S Electricity and Magnetism

* Must be included if CSCA58 was
chosen in first year.

Third Year:

PSCC30S Principles of Modern
Technology

and

PHYA21S Principles of Modern
Physics

Third and Fourth Year:

CSCB55F Numerical Analysis and
Optimization

CSCA51S Numerical Approximation,
Integration and Ordinary
Differential Equations

MATB44F Ordinary Differential
Equations

MATC44S Differential Equations

MATC35F Complex Variables

STAB45S Probability and Mathematical
Statistics

PSB20F Chaos, Fractals and
Complexity

MATC55S Chaotic Fractals and
Dynamics

MATC63 Principles of Classical
Physics

Second Year:

ASTB50F Celestial and Classical
Mechanics

CISC35S Computer Organization

CISC35S Techniques of the Calculus
of Several Variables I

MATB44F Classical and Quantum
Waves

MATC63 Principles of Classical
Physics

One of:

PHYS20F Structure and Evolution of
Astrophysical Bodies

ASTC15S Stellar Systems, Galaxies
and Cosmology

PHYB21S Electricity and Magnetism

PHYB22F Electrons and Atoms

and any three of:

CSCB35S Discrete Mathematics for
Computer Science

CSCB35S* Fundamental Data Structures
and Techniques

MATC11F Rings and Fields

MATC25S Classical Plane Geometries
and their Transformations

MATC15H Introduction to Number
Theory

PHYB15S Electricity and Magnetism

* Must be included if CSCA58 was
chosen in first year.

Fourth Year:

PSCC30S Principles of Modern
Technology

and

PHYA21S Principles of Modern
Physics

and

Second Year:

ASTB50F Celestial and Classical
Mechanics

CISC35S Computer Organization

CISC35S Techniques of the Calculus
of Several Variables I

MATB44F Classical and Quantum
Waves

MATC63 Principles of Classical
Physics

One of:

PHYS20F Structure and Evolution of
Astrophysical Bodies

ASTC15S Stellar Systems, Galaxies
and Cosmology

PHYB21S Electricity and Magnetism

PHYB22F Electrons and Atoms

and any three of:

CSCB35S Discrete Mathematics for
Computer Science

CSCB35S* Fundamental Data Structures
and Techniques

MATC11F Rings and Fields

MATC25S Classical Plane Geometries
and their Transformations

MATC15H Introduction to Number
Theory

PHYB15S Electricity and Magnetism

* Must be included if CSCA58 was
chosen in first year.

Fourth Year:

PSCC30S Principles of Modern
Technology

and

PHYA21S Principles of Modern
Physics

and

Second Year:

ASTB50F Celestial and Classical
Mechanics

CISC35S Computer Organization

CISC35S Techniques of the Calculus
of Several Variables I

MATB44F Classical and Quantum
Waves

MATC63 Principles of Classical
Physics

One of:

PHYS20F Structure and Evolution of
Astrophysical Bodies

ASTC15S Stellar Systems, Galaxies
and Cosmology

PHYB21S Electricity and Magnetism

PHYB22F Electrons and Atoms

and any three of:

CSCB35S Discrete Mathematics for
Computer Science

CSCB35S* Fundamental Data Structures
and Techniques

MATC11F Rings and Fields

MATC25S Classical Plane Geometries
and their Transformations

MATC15H Introduction to Number
Theory

PHYB15S Electricity and Magnetism

* Must be included if CSCA58 was
chosen in first year.

Fourth Year:

PSCC30S Principles of Modern
Technology

and

PHYA21S Principles of Modern
Physics

and

Second Year:

ASTB50F Celestial and Classical
Mechanics

CISC35S Computer Organization

CISC35S Techniques of the Calculus
of Several Variables I

MATB44F Classical and Quantum
Waves

MATC63 Principles of Classical
Physics

One of:

PHYS20F Structure and Evolution of
Astrophysical Bodies

ASTC15S Stellar Systems, Galaxies
and Cosmology

PHYB21S Electricity and Magnetism

PHYB22F Electrons and Atoms

and any three of:

CSCB35S Discrete Mathematics for
Computer Science

CSCB35S* Fundamental Data Structures
and Techniques

MATC11F Rings and Fields

MATC25S Classical Plane Geometries
and their Transformations

MATC15H Introduction to Number
Theory

PHYB15S Electricity and Magnetism

* Must be included if CSCA58 was
chosen in first year.
The Physical Sciences in Contemporary Society

PSCD001P The Physical Sciences in Contemporary Society

PSCD002S Current Questions in Mathematics and Science

MAJOR PROGRAMME IN PHYSICAL SCIENCES

Supervisor: M.J.G. Lee (287-7340)

The Major Programme 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 programmes for students more interested in the mathematical sciences or in chemistry are offered in Mathematics, in Chemistry, and in Biochemistry. The programme requires 8 full-course equivalents as follows:

First Year:
ASTA01Y Introduction to Astronomy
CHEM2Y General Chemistry
CSCA57S Introduction to Scientific Computing (recommended)

CSCA58F Introduction to Computer Science
MATB22Y Calculus
PHYA26F Principles of Classical Physics
PHYA21S Principles of Modern Physics

Second and Third Years:
Any 3.5 full-course equivalents from the following:

NOTE: Students who think they might subsequently proceed to complete the Specialist Programme in Mathematical and Physical Sciences (Physics stream) should consider taking the courses marked with an asterisk (*), since these courses are required for the Specialist Programme.

ASTB5S* Celestial and Classical Mechanics
CHMB22Y* Introductory Physical Chemistry
MATB23S Linear Algebra I
MATB24F Linear Algebra II
MATB41P Techniques of the Calculus of Several Variables I
MATB42P Techniques of the Calculus of Several Variables II

PHYB26F Waves

PHYB21F* Electricity and Magnetism

PHYB22F Electronics

PHYB23F* Physics Laboratory

PHYH225S Structure of Matter

PSCD05F Chaos, Fractals and Complexity

PSCD01 S Physical Principles of Modern Technology

PSCD01F Physical Principles of Modern Technology

CSCA57S Introduction to Scientific Computing (recommended)

Third Year:

MATB22Y Calculus

MATB23S Linear Algebra I

MATB24F Linear Algebra II

MATB41P Techniques of the Calculus of Several Variables I

MATB42P Techniques of the Calculus of Several Variables II

PHYB26F Waves

PHYB21F* Electricity and Magnetism

PHYB22F Electronics

PHYB23F* Physics Laboratory

PHYH225S Structure of Matter

PSCD05F Chaos, Fractals and Complexity

PSCD01S Physical Principles of Modern Technology

or

Physical Sciences / Physical Sciences Scarborough

burgeoning fields of microelectronics and digital computing. The modulation, transmission, and detection of electromagnetic waves are at the heart of the contemporary revolution in communications technology. The principles of thermodynamics set invariable constraints on the generation and inter-conversion of energy in its various forms. The goals of this course are to present the physical principles underlying digital communications, and energy technology, and to examine critically the applications of these technologies in modern society.

Prerequisites: PHYB21S, MATB41F, MATB42S

Corequisite: PHYB22F, PHYB23H

Session: Winter Day

PSCD016F/SH Physical Sciences Project

An independent study course to cover an experimental project or series of projects (including computational projects) in the Physical Sciences. Each project will be supervised by a member of the professional 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 formally scheduled laboratory courses, for students registered in a Physical Sciences Scarborough Specialist Programme, who have completed the requirements of the first three years of the programme with a GPA of at least 2.5.

Prerequisite: Permission of the Programme Supervisor, who shall consult with proposed TPA supervising faculty.

Session: Winter Day, Summer Day

PSCD01F The Physical Sciences in Contemporary Society

Telephone ID #: 3363013

Current issues involving physical science in modern society. Topics include: complex nature of the scientific method; inter-connection between theory, concepts and experimental data; characteristics of premature, pathological and pseudo-science; how scientific research is organized and funded in Canada; role of communication and publishing; public misunderstanding of scientific method; reasons for current anti-science mood; end of the Golden Age of Science; insufficiency of reductionism; trends in modern technologies.

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: Continued participation in one of the Physical Sciences Scarborough Programmes.

Session: Winter Evening

PSCD02S Current Questions in Mathematics and Science

Telephone ID #: 3364025

Topics of current prominence in the physical sciences and mathematics will be discussed, usually by faculty or outside guests who are close to the area of prominence. Topics will change from year to year as the sciences evolve. An appropriate topic at the present would be, for example, the phenomena of high-temperature superconductivity.

Corequisite: Continued participation in one of the Physical Sciences Scarborough Programmes.

Session: Winter Evening

PSCD008 Computers in Contemporary Society

Telephone ID #: 3364035

The benefits and risks to society of computer systems, the trade-offs between the two, and the issues that arise in ethics and public policy. Topics to be covered will include the following:

- Public safety and computer reliability
- The invasion of personal privacy, methods of protection
- Crime with, by, and against computers, including viruses, hacking, software theft, computer-based scams, etc.
- The computerization of the workplace and work-related consequences of a highly computerized society
- Professional ethics in the software industry, codes of conduct.

There will be an emphasis on current events that pertain to these topics.

Limited enrollment: 25

Prerequisites: Ten full-course equivalents including CSCA08F/S or CSCA57S/F or CSCA57S (or, in special cases, CSCA08F/S and permission of the instructor)

Exclusion: CSC300
Physics (B.Sc.)

Faculty List
H.C. Corben, M.A., M.Sc. (Melbourne) 
P.H. (Canberra), Professor Emeritus
E. Fawcett, M.A., Ph.D. (Canberra), Professor Emeritus
A. Griffin, M.Sc. (British Columbia), Ph.D. (Canberra), Professor
I. Jacobs, B.A., B.Sc., B.Sc. (Waterloo), Ph.D. (Illinois), Professor
J.D. King, B.A., Ph.D. (St. Catharines), Professor
M.G. Lee, M.A., Ph.D. (Canberra), Professor
P.J. Donnellan, B.Sc., Ph.D. (Glengarn), Professor
J.M. Perch, B.A., M.A.Sc. (Melbourne), Ph.D. (Canberra), Professor
E. Quick, M.Sc., Ph.D. (Windsor), Senior Tutor
G. Lorrie, B.Sc., M.Sc. (Melbourne), Senior Tutor

Discipline Representative: M.J. Lee (287-7246)

Physics is the study of the basic laws of nature which govern the material objects and their interactions. The effect of a star on the motion of a planet, or of the Earth on the motion of a satellite, the effect of a molecule on a nearby atom, or of an atomic nucleus on an electron, can be accurately described by the laws of physics. 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 forces so beautifully synthesized in Maxwell's theory of electromagnetism. From these basic principles many of the properties of gases, liquids, solids, plasmas, and nuclear matter can be related to the interactions among the individual units of which these complex systems are composed.

Physics allows us to describe the properties of light, sound and heat up to the point where these enter our senses, as well as x-ray, radio, cosmic and other radiations of which we are not directly aware. The remarkable properties of some materials under extreme conditions of temperature and pressure, and of other materials when an electric current passes through them, form the basis of a wide range of applications of the subject.

It is possible to develop, in mathematical language, theories that so accurately describe physical phenomena that they can be used to predict the results of many carefully controlled experiments. The study of physics, therefore, involves both mathematics and the techniques of experimental science.

At University of Toronto at Scarborough, a student interested in physics can take the Specialist Programme in Mathematical & Physical Sciences (Physical Sciences stream), the Specialist Programme in Computer Science and Physical Sciences (Computer Science and Physics stream), or the Major Programme in Physical Sciences. In addition, there is a Co-operative Programme in Computer Science and Physical Sciences.

**NOTE:** There are two two-term introductory sequences in physics, each of which is accompanied by a laboratory. PHYS100/PHYS110 is designed for those students who do not have an OAC in Physics, and PHYS101/PHYS106 is designed for those students who have an OAC in Physics. Of the two five-term courses, PHYS100 makes the greater use of mathematics and places more emphasis on developing problem solving skills, while PHYS106 offers a broader coverage of the concepts of classical physics and their applications. PHYS106 has a calculus prerequisite, a first-year calculus course is an implicit prerequisite for every student who requires for either two-term introductory sequence in physics.

PHYS100 Dynamics of Classical Systems
Telephone ID #: 2841103

An introduction to the laws of mechanics: statics, laws of motion and gravitation, energy and momentum, angular motion, planetary motion; mechanics of fluids: density and viscosity, thermal expansion, fluid at rest, fluids in motion; and thermodynamics: ideal gases, kinetic theory, entropy, internal energy, energy transfer, the laws of thermodynamics. Two lectures and one tutorial per week, and a three-hour laboratory every second week. Exclusion: PHYS202, PHYS215. Prerequisite: PHYS100, PHYS110, 130, 138, 150.

PHYS215 Principles of Classical Physics
Telephone ID #: 2841203

An introduction to classical physics for those with some background in physics. It is similar in content to PHYS100, but it makes greater use of mathematics and gives students greater opportunity to develop problem solving skills. Classical mechanics; potential energy, conservation law, rotational dynamics, planetary motion, harmonic vibrations, wave equations; thermodynamics: temperature, entropy, ideal gases. Two lectures and one tutorial each week and a three-hour laboratory every second week. Exclusion: PHYS202, PHYS215. Prerequisite: OAC Calculus & OAC Physics or OAC Calculus & OAC Physics/Algebra and Geometry or OAC Finite Math & OAC Physics. Co-requisite: PHYS202 Session: Winter Day

PHYS216 Principles of Modern Physics
Telephone ID #: 2841253

An introduction to modern physics for those who have completed either PHYS100 or PHYS106.

Electric and magnetic fields, electromagnetic waves, reality of relativity: universality of the speed of light, Lorentz transformations, relativistic mechanics, E=mc^2, quantum physics: the wave nature of matter, particle nature of light, quantum states, atomic spectra, introduction to quantum mechanics, interpretation of the wave function, nuclear structure, energy from nuclear fission and fusion.

Two lectures and one tutorial each week and a three-hour laboratory every second week. Exclusion: PHYS202, PHYS215, PHYS216, PHYS217. Prerequisite: PHYS100 or PHYS106. Co-requisite: PHYS202 (or with consent of Physics instructor MATA20) Session: Winter Day

PHYS202 Classical and Quantum Waves
Telephone ID #: 2842033

A study of harmonic oscillators, damped, driven and coupled oscillators; standing and running waves, interference and diffraction, normal modes; wave functions in quantum theory; wave-particle duality; de Broglie matter waves; wave mechanics of 1-dimensional systems. Exclusion: PHYS202, PHYS215. Prerequisite: PHYS215 and MATA20. Corequisite: PHYS215. This is a computer based course. Lectures and assignments use MAPLE, the symbolic programming language. Session: Winter Day

PHYS215 Electricity and Magnetism
Telephone ID #: 2842215


PHYS220 Electronic Devices
Telephone ID #: 2842233

A study of non-linear elements including diodes and transistors, rectifiers, simple filters, amplifiers, pulse circuits, operational amplifiers, logic gates, Boolean algebra, digital electronics. Includes a three-hour laboratory every second week. Prerequisite: PHYS215, PHYS216 (PHYS217) or PHYS216 (PHYS217) Session: Winter Day

PHYS221 Physics Laboratory
Telephone ID #: 2842215

Experiments to circuit theory, basic electricity and magnetism, solid state physics and atomic and nuclear physics. A six-hour laboratory per week. Co-requisite: PHYS215. Session: Winter Day

Courses Not Offered in 1996/97

PHYS205 Physics of Solid State Materials
Exclusion: PHYS202, PHYS215, PHYS280, PHYS217, PHYS218

PHYS225 Structure of Matter
Prerequisite: PHYS202

PHYS230 Properties of Solids
Exclusion: PHYS202, PHYS215, PHYS280, PHYS217, PHYS218

PHYS225 Structure of Matter
Prerequisite: PHYS202
Statistics

Faculty List
M. Evans, B.Sc. (Western Ontario), M.Sc., Ph.D., Professor.
Discipline Representative: M. Evans (287-7274)
Probability and statistics have developed over a period of several hundred years as attempts to quantify uncertainty. With its origins in modelling games of chance, probability theory has become a sophisticated mathematical discipline with applications in such fields as demography, genetics and physics. Statistics is concerned with the proper collection and analysis of data, both to reduce uncertainty and to provide for its assessment via probability. Applications range from pre-election polling to the design and analysis of experiments to determine the relative efficiencies of different vaccines. STA52F and STA475 serve as an introduction to the discipline. The C-level courses build upon the introductory material to provide a deeper understanding of statistical methodology and its practical implementation.

Please refer to the Physical Sciences Scarborough program on page 112 for a list of the Programmes offered.

Descriptions of these programmes will be found on subsequent pages of this section.

STA547F Introduction to Probability Theory and Mathematical Statistics
Telephone ID #: 28924753
An introduction to the mathematical theory of probability and statistics. The course covers: probability models, marginal and conditional probability, expectation, the Weak Law of Large Numbers and the Central Limit Theorem, statistical models, the likelihood function, estimation, hypothesis testing, linear models.
Exclusion: STA547P
Prerequisite: STA52F (or one of its exclusions) & MAT441P
Session: Winter Day

STA545T Time Series Analysis
Telephone ID #: 28935715
An overview of methods and problems in the analysis of time series data. Topics covered include descriptive methods, filtering and smoothing time series, identification and estimation of time series models, forecasting, seasonal adjustment, spectral analysis, intervention in the use of SAS.
Exclusion: STA547P
Prerequisite: STA545F

STA562F Stochastic Processes
Telephone ID #: 28936213
This course continues the development of probability theory begun in STA547F. Topics covered include Poisson processes, Gaussian processes, Markov processes, renewal theory, queuing theory, martingales and stochastic differential equations.
Exclusion: STA547
Prerequisite: STA547F

STA567F Regression Analysis
Telephone ID #: 28936713
Exclusion: STA102
Prerequisite: STA547F
Session: Winter Day

Courses Not Offered in 1988/89

STA425F Multivariate Analysis
Exclusion: STA547P
Prerequisite: STA507

STA525F Experimental Design
Exclusion: STA352H
Prerequisite: STA475 & STA547F

Political Science

Faculty List
S.J. Colman, M.A. (Oxon.), Professor Emeritus
J.G. Bland, B.A. (British Columbia),
Ph.D. (London), Professor
R. Massey, B.Ed. (New Brunswick), M.A. (Oxon.), Ph.D. (Harvard), Professor
A. Rubinstein, A.B. (Allegheny), M.A., Ph.D. (Chicago), Professor
G. Nagy, B.A., M.A. (Alberta), Ph.D. (British Columbia), Professor
S. Solomon, B.A. (McGill), M.A., Ph.D. (Columbia), Professor
F. Terken, B.A., M.A., Ph.D. (Toronto), Professor
R.S. Blair, M.A. (Glasgow), M.A. (Toronto), Associate Professor
D.B. Cook, M.A., Ph.D. (Toronto), Associate Professor
J. Bider, B.Ed., B.A. (West Australia), B.Sc. (London), M.A., Ph.D. (Toronto), Associate Professor
P. Kingston, B.A. (Toronto), M.A. (London), D.Phol. (Oxford), Associate Professor
D. Welch, B.A. (Toronto), A.M., Ph.D. (Harvard), Associate Professor

Discipline Representative / Supervisor of Studies: R. Massey (287-7307)
Contemporary states and societies are beset by political crisis and change. International relations have become unstable and unpredictable as the Cold War has ended and a new world order has yet to be constructed. The sovereignty of nation-states and their capacity to impose order on societies the economic and social welfare are being eroded by transnational forces of the new global economy. Religious and ethnic, nationalism 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 populism, 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, 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 subfields: Canadian Politics, Comparative Politics (Developing and Developed Countries), International Relations and Political Theory. The area of Canadian Politics, students will learn about the institutional foundations of the Canadian political process. Some of the topics national politics include national unity, elections and political parties, environmental and social policy, and the impact of the global economy on national sovereignty. Courses in comparative politics deal with the problems of political change and development in Western Europe, Latin America, and the Middle East. Political globalization and mobilization, transitions to democracy and ethnic and religious conflict. One of the themes dealt with in comparative politics concerns the ways in which relations is devoted to studying the foreign policies of particular nation-states and the patterns of conflict and cooperation among states. Political theory explores the ideas, such as justice and legitimacy,
political thought and practice, giving special attention to reading and interpreting the classic expositions of politics from ancient Greek philosophers to postmodern social theorists.

**SPECIAL PROGRAMME IN POLITICAL SCIENCE**

Applications for admission to this Special Programme are accepted after students have completed at least four full-course equivalents (that is, generally after completing the first year of the degree programme). Applicants must have completed one-half course from among the A-level courses in Political Science listed below. Students must complete at least ten full-course equivalents in Political Science including:

1. One full-course equivalent from among the A-level political science courses (not more than one full-course equivalent at the A-level can be counted towards programme requirements).
2. POL807Y Classic Texts in Political Theory
3. Either POLA151PS, and two of POLB50Y, POLB60Y, POLB91Y, POLB92Y or POLB02Y, and one of POLB80Y, POLB91Y, POLB92Y (Note: this programme requirement is to ensure that all students in the programme take at least a half-course in Canadian Politics)
4. Two political science full-course equivalents at the C- and/or D-level

**MINOR PROGRAMME IN POLITICAL SCIENCE**

The Programme requires completion of at least four full-course equivalents above the A-level in Political Science. At least two of these must be at the C- or D-level. These are two options: either the four full-course equivalents must be taken from any one of the fields listed below (e.g. all four in Canadian Government); or two full-course equivalents must be taken from each of any two of these fields (e.g. two courses in International Relations, plus two courses in Comparative Politics). Students who are completing their degree programme in the Specialist Programme in Political Science may not take more than fourteen full-course equivalents in Political Science. In selecting courses from these disciplines, they should consult with the Supervisor or with a member of the Political Science faculty.

**MAJOR PROGRAMME IN POLITICAL SCIENCE**

Applications for admission to the Major Programme are accepted after students have completed at least four full-course equivalents (that is, generally after completing the first year of the degree programme). Applicants must have completed one-half course from among the A-level courses in Political Science listed below.

Students must complete at least seven full-course equivalents in Political Science, including:

1. One full-course equivalent from among the A-level political science courses
2. POL807Y Classic Texts in Political Theory
3. Either POLA151PS, and two of POLB50Y, POLB60Y, POLB91Y, POLB92Y or POLB02Y, and one of POLB80Y, POLB91Y, POLB92Y (Note: this programme requirement is to ensure that all students in the programme take at least a half-course in Canadian Politics)
4. Two political science full-course equivalents at the C- and/or D-level

**SPECIALIST PROGRAMME IN ECONOMICS AND POLITICAL SCIENCE**

(See under Economics)

**POLA11F Critical Issues of Canadian Democracy**

Telephone ID #: 2521513
An introduction to political issues arising from imaginative rather than academic literature. E. A. Johnson's Manners presents public justice triumphing over private revenge. We're the Monkey exhibits the role of self-discipline in ordered societies. Shakespeare's Hamlet resists the tension between the demands of private vengeance and public recognition of guilt. "Donovan's Grand Inquisitor explores the tension between freedom and security. Arendt's The Man in the Mirrorlegy on liberation and politics of democracy, and Bradford's Dr. Carnivale presents our post-modern response to get to the truth of political matters.


**POLA203 Cultures of Conflict: Politics, Society and War Since 1945**

Telephone ID #: 2521803
An examination of political and social attitudes towards war, and their underlying causes, during the 19th and 20th Centuries, as portrayed in film, literature, and historical writing. Wars examined include the War of 1812, World Wars I and II, and the Vietnam War. Readings include (e.g.) "War and Peace" and The Guns of August; films include (e.g.) All Quiet on the Western Front and The Green Beret.


D. Welch

**POLA118 Leaving Home: Politics and Emigration**

Telephone ID #: 2521813
The study of the political causes and patterns of emigration in the twentieth century. The course examines contemporary political factors (war and revolution, ethnic / racial discrimination, poverty, dilemmas of conscience) that sparked emigration in the twentieth century. Attention will be paid to the impact of emigration on the country of origin and on the country of immigration.

Offered: 1999/2000
Not offered: 1998/1999

S. Solomon

**POLA205 Corruption, Crime and Violence**

Telephone ID #: 2521903
An introduction to some of the basic tools of comparative political analysis to examining the origins and dynamics of corruption and violence in the domestic and international politics of selected less developed countries. Placing the politics of less developed countries within the context of recent developments of the global political economy, the course explores some of the key explanatory tools used in comparative development studies. The concepts are operationalized through the detailed examination of corruption and violence in specific cases. Case studies include an examination of the rise and expansion of the drug trade in Columbia and Peru and its impact on state corruption, guerrilla insurgency and state repression; the emergence of extreme corrosive state power in Iraq and Syria; the rise of social violence; the social corrosive role of religious practices in Algeria; and an examination of civil war as an organized system of corruption and violence in the case of Lebanon. The course will conclude with a discussion of the conditions conducive for non violent political action in the developing world.


**POLB96Y Canadian Politics**

Telephone ID #: 2522503
The course examines the institutional foundations of Canadian politics and government and the political channels which link Canadian citizens and their governments. The constitution, Parliament, the electoral process, the federal system, the Charter of Rights and Freedoms, and the role of the courts are given close attention. The electoral system, political parties, interest groups,
and the mass media are examined for their efficacy in enabling Canadians to render their governments responsible and responsive. The objective of the course is to enable students to acquire a good grasp of our system of national governance in the late twentieth century. Exclusions: POL205Y, POL210Y, POL212Y, POL215Y Session: Winter Day G. Skogstad

POL270Y Classic Texts in Political Theory Telephone ID: 25237463 An examination of the central political texts from Plato to the French Revolution. Thinkers discussed will include Plato, Aristotle, St. Augustine, St. Thomas Aquinas, Machiavelli, Hobbes, Locke, Rousseau, and Burke. The text used will be Michael L. Morgan (ed.), Classics of Moral and Political Theory. Exclusion: POL205Y Session: Winter Day T.B.A.

POL280Y International Relations Telephone ID: 25237663 A study of the nature of the international system, the factors that motivate foreign policies, and the institutions for the conduct of international relations. Exclusion: POL280Y Prerequisite: Not open to first year students without permission of the instructor Session: Winter Day, Summer Evening A. Pahudoff T.B.A.

POL381Y Comparative Politics of Political Development Telephone ID: 25237863 An examination of the effects which various Western, especially North American, policies and practices have had upon development in the Third World. The policies and practices to be surveyed include those relating to foreign aid, the multi-national corporation, and Western security. Case material will be drawn from four countries in Latin America and Africa which illustrate a diversity of approaches to underdevelopment: Cuba, Chile, Ghana, Kenya. Exclusion: POL280Y Session: Winter Day T.B.A.

POL382Y Comparative Politics of Democratic Government Telephone ID: 25237963 This course undertakes comparative studies of the structure and processes of selected democratic governments in the developed and developing world. It explores various models of parliamentary and presidential governments, and introduces students to comparative analysis by examining how representative democracies function. The focus will be on group dynamics in a representative setting. The theory and practice and practices of the representation of interest groups will be analyzed. Session: Winter Day E. Eberley

POL387Y The Politics of the Environment Telephone ID: 25238563 An examination of the politics surrounding environmental policy in Canada and other industrialized countries, including the United States, Australia, and the European Union. The focus is on understanding how different political systems and constitutional frameworks affect the organization and influence of environmentalists. The changing character and diversity of environmental movements, the response of political and economic elites to environmental movements, and the globalization of environmental issues like preservation of old growth forests, acid rain, global warming, and the regulation of ozone layer depletion are examined. Prerequisite: POL387Y (POL490Y) or POL515F/3 or OGR500Y/4 or GOR515Y or a course in Canadian politics. Session: Winter Day G. Skogstad

POL567Y Comparative Political Analysis Telephone ID: 25238763 An examination of the methods of analysis used in the empirical study of politics. The purpose of the course is to enable the student to know political methods to identify underlying values and assumptions, to differentiate good from poor logic of argument, to distinguish between adequate and inadequate use of evidence and between warranted and unwarranted conclusions drawn from the evidence. Special attention will be paid to the questions surrounding the "science of politics". Prerequisite: One course in Political Science Session: Winter Day T.B.A.

POL582Y American Foreign Policy Telephone ID: 25238863 A study of the foreign policy of the United States by looking at the traditional decision-making process by which it is formed, and its application to a number of specific regions and problems in the world. Prerequisite: POL388Y or POL480Y Session: Winter Day J. Eberley A. Pahudoff

POL597Y The New International Agenda Telephone ID: 25238963 An examination of issues attracting attention from scholars and policy-makers in the post-Cold War world, as well as newer approaches for studying and managing them. The issues the course would cover would include management of international environmental problems; the status and treatment of women in politics, society, and the global economy; demographic change, migration of refugees, and re-emerging infectious diseases; non-proliferation of weapons of mass destruction (nuclear, chemical, biological); and internecine, law enforcement, and the war on drugs. Prerequisite: POL100Y or equivalent Session: Winter Day D. Wrec

POL398F Politics and Society in Latin America Telephone ID: 25239863 A lecture/seminar course surveying the evolution and current traits of political institutions in Latin America with particular emphasis upon the role of domestic and international forces in shaping them. Exclusion: POL380Y Prerequisite: POL381Y or a course on Third World development Session: Winter Day T.B.A.

POL491B Political Interests, Political Identity, and Public Policy Telephone ID: 25249263 An examination of the interrelationship between organized interests, social movements and the state in the formulation and implementation of public policy in Canada and selected other countries. The impact of the organization of the state on the structure, functioning, and influence of organized interests will be examined, as well as the effect of organized interests on the capacity of the state to make public policies. A special focus of concern is the rise of new social movements and their impact on traditional channels of organizing and representing political interests. Prerequisite: POL388Y (POL507Y) or POL515F Session: Winter Day J. Eberley

POL515F Topics in Canadian and Comparative Politics Telephone ID: 25245133 A seminar course that explores selected issues of Canadian and international politics from a comparative perspective. In 1998/99 topics in this course will focus on comparative studies of the politics of ethnicity, gender, and language. Prerequisite: POL597Y (POL507Y) or POL515F Session: Winter Day J. Eberley
Psychology (B.S.)

Faculty List
B. Ferris, B.A. (Toronto), M.A., Ph.D. (Michigan) Professor Emeritus
J. Ballyk, B.A. (McGill), Ph.D. (Cornell) Professor
G.B. Findlay, B.Sc. (CUNY), Ph.D. (NYU) Professor
G.C. Cupchik, B.A. (Michigan), M.A., Ph.D. (Wisconsin) Professor
K.K. Dion, B.A. (Wellesley), Ph.D. (Minnesota) Professor
J.E. Foley, B.A. (Sydney), Professor
G.O. Ivy, B.A. (Drew), Ph.D. (California) Professor
J.M. Kennedy, B.Sc., M.Sc. (Belfast) Professor
A. Kabeck, A.H., M.A., Ph.D. (UCLA) Professor
C.M. MacLeod, B.A. (McGill), Ph.D. (Washington) Professor
N.W. Miligram, B.A. (UCLA), M.A., Ph.D. (McGill) Professor
T.J. Pett, B.S., M.A. (Louisiana) Professor
M.C. Smith, B.A. (Toronto), Ph.D. (MET) Professor
P. Kiplinger, B.Sc. (McGill), M.A., Ph.D., M.D. (Toronto) Associate Professor
M.A. Schmuckler, B.A. (SUNY-Binghampton), Ph.D. (Cornell) Associate Professor
S. Joewels, B.A. (New Brunswick) M.A., Ph.D. (Waterloo) Assistant Professor
J.R. Mendelson, B.S.C. (Toronto) Ph.D. (Dartmouth) Assistant Professor
D.A. Bour, B.A. (Florida), M.A. (Regina) Ph.D. (Toronto) Senior Tutor

Associate Chair: M. Schmuckler

Psychology is the branch of science which seeks to understand behaviour and mind. Why organisms - human and infrahuman - act as they do is one of the most compelling and longstanding questions in the history of human thought. Philosophers, artists, novelists, theologians and others have sought the answer through a variety of means. Psychology uses the methods of scientific inquiry to address the question.

The areas of interest encompassed by the discipline of psychology include: how organisms perceive their environment; how they learn, adapt, and remember; how they change over their lifetimes; how they choose among alternate courses of action; how they respond to motivating forces; how they are affected by the presence of other organisms in social settings; how their behaviour relates to their physiological functions; and how individuals and species differ from one another.

Our course offerings in Psychology include all of these topics, covering how psychologists go about answering the important questions in each, and what we have learned about each.

The Specialist Programme in Psychology includes courses from each of the main sub-areas within the discipline. This programme 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 thesis course (PSYD19v7) in their undergraduate programmes.

The Major Programme in Psychology is designed to introduce students to the main areas within the discipline. The Minor Programme is designed for students who are interested in a less intensive exposure to the field. Often, students desire to concentrate their studies in two areas, in which case a double Major Programme combining psychology with another discipline is ideal.

Students particularly interested in the relation of brain to behaviour should consider the Specialist or Major Programme in Neuroscience described earlier in this Calendar. Those particularly interested in the study of knowledge, language, communication and thought may wish to consider the Neuroscience Specialised Programme in Cognitive Science.

Planning your Programme in Psychology

Students should be aware that the A, B, C, D and E course sequences in Psychology represent the sequence in which courses should be taken, but that no specific course may 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 PSYD100v7 and PSYD200v7 be taken consecutively in the two terms of second year. Students should be aware that with the exception of PSYD100v7 and 200v7, all other courses in the Faculty of Arts and Science correspond to C- or D-level and all 400-level courses are considered D-level. Students are encouraged to plan carefully so that they will meet their educational objectives over the years of their degree. Discussions with the Supervisor of Studies can be very valuable in this regard.
Courses in Neuroscience
To facilitate organization of the calendar, all Neuroscience courses that formerly had NSF designations have been given NRO designations. Consequently, these courses appear only in the Neuroscience listings. Students interested in including Neuroscience courses in their Psychology programme should consult the Neuroscience section for details. Former NSF course numbers are indicated there as well.

First-Year Students in Psychology
PST101Y recommended in first year if intending to pursue a Major or Specialist in Psychology.

SPECIALIST PROGRAMME IN PSYCHOLOGY
Supervisor: J.E. Foley (office S564)
The programme requires completion of 12.5 full-course equivalents, and fulfills the Programme requirements for the 4-year B.Sc. degree in Psychology.

A. 10.5 full-course equivalents in Psychology, as follows:

1. PSY101Y Introduction to Psychology (1 full-course equivalent)

2. Statistical Methods (6 full-course equivalents)
   (a) PSY102Y/FIS Data Analysis in Psychology
   (b) PSY103Y/FIS Advanced Data Analysis in Psychology

3. Laboratory Methods (1 full-course equivalent)
   (a) PSY104Y/FS Research Laboratory
   (b) one half-course (1.5 full-course equivalent) from among the following:
      PSYC111FS Social Psychology Laboratory
      PSYC264FS Developmental Psychology Laboratory
      PSYC434FS Psychophysiology Laboratory
      PSYC424FS Learning Laboratory
      PSYC505FS Experiential Psychology
      PSYC535FS Microcomputer Laboratory
      NSOC33P Neuroscience Laboratory or
      (PSYC33Y*) (Neuroscience Laboratory)

(Students who have taken PSYC33Y also receive 0.5 course credit towards satisfaction of Requirement 60 or 71.)

4. PSY202Y Scientific Communication in Psychology (3 full-course equivalents)

5. History and Theoretical Psychology (5 full-course equivalents)
   (a) PSY205Y/FIS Theoretical Psychology
   (b) PSY205Y/FIS History of Psychology

6. Courses at the B-level and/or C-level (3 full-course equivalents)
   Students are required to take one full-course equivalent at the B-level and/or C-level from each of the three content groups listed below:
   (a) Social, Developmental and Personality courses (listed in the 10-, 20-, and 30-series);
   (b) Learning and Physiology courses (listed in the 40- and 50-series);
   (c) Perception, Language and Cognition courses (listed in the 50-series).

7. Courses at the D-level (2 full-course equivalents)
   In selecting two full-course equivalents at the D-level, students may not include more than 1.5 full-course equivalents from any one of the content groups listed under 6a, 6b, or 6c. Specialists are encouraged to plan on entering in the third or fourth year, particularly if they intend to pursue a career in Psychology or a related discipline.

8. Additional courses in Psychology (1.5 full-course equivalents)
   Students must choose 1.5 further full-course equivalents from any of the remaining courses in psychology. The choice is unrestricted.

9. Other Disciplines (2 full-course equivalents)
   Students must select at least two full-course equivalents at the B-level or higher on a discipline or disciplines other than Psychology.

MAJOR PROGRAMME IN PSYCHOLOGY

Supervisor: J.E. Foley (office S564)
The programme requires completion of 6.0 full-course equivalents in Psychology and normally results in the 3-year B.Sc. in Psychology.

1. PSY301Y Introduction to Psychology (1 full-course equivalent)

2. PSY302Y/FIS Psychological Research Laboratory (1 full-course equivalent)

3. PSY303Y/FIS Data Analysis in Psychology (1 full-course equivalent)

4. Courses at the B-level and/or C-level (1.5 full-course equivalents)
   Students are required to select one half-course (1.5 full-course equivalent) from each of the three content groups listed below (1.5 full-course equivalents):
   (a) Social, Developmental and Personality courses (listed in the 10-, 20-, or 30-series);
   (b) Learning and Physiology courses (listed in the 40- or 50-series);
   (c) Perception, Language, and Cognition courses (listed in the 50-series).

MINOR PROGRAMME IN PSYCHOLOGY

Supervisor: J.E. Foley (office S564)
The programme requires completion of 4.0 full-course equivalents in Psychology, at least one full-course equivalent to be at the C- or D-level.

1. PSY301Y Introduction to Psychology (1 full-course equivalent)

2. PSY302Y/FIS Psychological Research Laboratory (1 full-course equivalent)

3. PSY303Y/FIS Data Analysis in Psychology (1 full-course equivalent)

4. Additional courses in Psychology (2 full-course equivalents)
   Students must choose 2 further full-course equivalents from any of the remaining courses in Psychology. At least one full-course equivalent from these must be at the C- or D-level.

5. Additional course in Psychology (1.5 full-course equivalent)
   Students must choose 1.5 further full-course equivalents from any of the remaining courses in Psychology.

MINOR PROGRAMME IN PSYCHOLOGY

Supervisor: J.E. Foley (office S564)
The programme requires completion of 4.0 full-course equivalents in Psychology, at least one full-course equivalent to be at the C- or D-level.

1. PSY301Y Introduction to Psychology (1 full-course equivalent)

2. PSY302Y/FIS Psychological Research Laboratory (1 full-course equivalent)

3. PSY303Y/FIS Data Analysis in Psychology (1 full-course equivalent)

4. Additional courses in Psychology (2 full-course equivalents)
   Students must choose 2 further full-course equivalents from any of the remaining courses in Psychology. At least one full-course equivalent from these must be at the C- or D-level.

5. Additional course in Psychology (1.5 full-course equivalent)
   Students must choose 1.5 further full-course equivalents from any of the remaining courses in Psychology.

MINOR PROGRAMME IN PSYCHOLOGY

Supervisor: J.E. Foley (office S564)
The programme requires completion of 4.0 full-course equivalents in Psychology, at least one full-course equivalent to be at the C- or D-level.

1. PSY301Y Introduction to Psychology (1 full-course equivalent)

2. PSY302Y/FIS Psychological Research Laboratory (1 full-course equivalent)

3. PSY303Y/FIS Data Analysis in Psychology (1 full-course equivalent)

4. Additional courses in Psychology (2 full-course equivalents)
   Students must choose 2 further full-course equivalents from any of the remaining courses in Psychology. At least one full-course equivalent from these must be at the C- or D-level.

5. Additional course in Psychology (1.5 full-course equivalent)
   Students must choose 1.5 further full-course equivalents from any of the remaining courses in Psychology.

MINOR PROGRAMME IN PSYCHOLOGY

Supervisor: J.E. Foley (office S564)
The programme requires completion of 4.0 full-course equivalents in Psychology, at least one full-course equivalent to be at the C- or D-level.

1. PSY301Y Introduction to Psychology (1 full-course equivalent)

2. PSY302Y/FIS Psychological Research Laboratory (1 full-course equivalent)

3. PSY303Y/FIS Data Analysis in Psychology (1 full-course equivalent)

4. Additional courses in Psychology (2 full-course equivalents)
   Students must choose 2 further full-course equivalents from any of the remaining courses in Psychology. At least one full-course equivalent from these must be at the C- or D-level.

5. Additional course in Psychology (1.5 full-course equivalent)
   Students must choose 1.5 further full-course equivalents from any of the remaining courses in Psychology.

MINOR PROGRAMME IN PSYCHOLOGY

Supervisor: J.E. Foley (office S564)
The programme requires completion of 4.0 full-course equivalents in Psychology, at least one full-course equivalent to be at the C- or D-level.

1. PSY301Y Introduction to Psychology (1 full-course equivalent)

2. PSY302Y/FIS Psychological Research Laboratory (1 full-course equivalent)

3. PSY303Y/FIS Data Analysis in Psychology (1 full-course equivalent)

4. Additional courses in Psychology (2 full-course equivalents)
   Students must choose 2 further full-course equivalents from any of the remaining courses in Psychology. At least one full-course equivalent from these must be at the C- or D-level.

5. Additional course in Psychology (1.5 full-course equivalent)
   Students must choose 1.5 further full-course equivalents from any of the remaining courses in Psychology.
The conceptual problem of defining abnormality and recognizing its varieties will be emphasized.
Exclusion: PSY245
Prerequisite: PSYA01Y
Session: Winter Evening
T.B.A.

PSYB45F Behaviour Modification: Origins and Applications
Telephone ID #: 25724533
A survey of attempts to understand and regulate abnormal human behaviour.
Philosophical underpinnings; basic concepts and models of behavioral change; research strategies; operant procedures; behavioral contracting, biofeedback, punishment, attribution, placebo effects, cognitive therapy, rational-emotive therapy, thought stopping, modeling, fear extinction, aversive conditioning; treatment of depression and schizophrenia; systematic desensitization; treatment of anxiety; aversive counter-conditioning; treatment of alcohol and drug abuse.
Exclusion: PSY361
Prerequisite: PSYA01Y
Session: Winter Evening
F. Klipper

PSYB65F Sensation and Perception
Telephone ID #: 25725035
The processes underlying perception, emphasizing the energies involved in different senses.
Stimuli for the human senses, especially light and sound; receptors and sensory pathways with emphasis on vision and audition; sensation; sensitivity; colour, spatial, and temporal resolution; contrast; depth; form; speech perception. The teaching method will be lectures and practical sessions requiring some written reports.
Exclusion: PSY280
Prerequisite: PSYA01Y
Session: Winter Day
J.E. Foley

PSYB65S Perception and Cognition Telephone ID #: 25725153
Theory and empirical research on perception and cognition, including problems of reasoning, symbolism and visual and tactile perception, representation, and communication. Topics include the connectionist and ecological approaches to action and perception in the handicapped and normal perceivers; perceptual information and projection, illusion, perspective, shadow patterns and flow fields during motion, possible and impossible scenes, human and computer scene-analysis, ambiguity in perception, perception of objects and images, and fronto-perception. The empirical research is on adults and children. Demonstrations and exercises form part of the course work.
Prerequisite: PSYA01Y
Session: Winter Day
J. Kennedy

PSYB576 Memory and Cognition Telephone ID #: 25725175
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. Three lecture hours per week.
Exclusion: PSY210, PSY270
Prerequisite: PSYA01Y
Concurrent: PSYB70F
Session: Winter Evening
C.M. MacLeod

PSYB70F Human Brain and Behaviour Telephone ID #: 25726533
An examination of the neurological basis of human behaviour: an introduction to human neuropsychology. The course focuses on the following: higher brain functions in humans; functional neuroanatomy of the brain, including neuropsychology of speech, disorders of the central nervous system, multiple sclerosis, epilepsy, organic brain damage, strokes, Alzheimer’s disease, frontal lobe syndrome, agnost, and speech disorders; psychopharmacology and the biological basis of psychiatric disorders.
Three hours of lecture per week.
Prerequisite: PSYA01Y
Session: Summer Evening (3), Winter Day (7)
T. Petri

PSYC020 Scientific Communication in Psychology Telephone ID #: 25720253
The development and enhancement of practical and professional skills based on current standards in the field. The primary focus is on improving the student’s ability to think, organize information, and communicate clearly, critically and effectively within the discipline. Related skills, such as...
**PSYC128 Advanced Social Psychology**

**Telephone ID:** 25730353

This course is a combination of PSYB07 and focuses primarily on issues related to the analysis of variance (i.e., ANOVA) as a statistical analysis tool. The theory and practice underlying ANOVA will be discussed in a number of experimental design contexts ranging from situations where there is a single between-subject variable to situations where there are multiple independent variables, some within-subjects and some between-subjects. The related issues will include the prior test for post-hoc tests as well as tests of the assumptions of the analysis of variance procedure. This course is highly recommended for all students contemplating supervised individual research in psychology.

**Three hours of lecture and one hour of tutorial per week.**

**Exclusion:** STAC52, PSY202

**Prerequisite:** PSYB07FS and one additional B-level half-course in Psychology

**Sequence:** Winter Evening

S. Joondhoo

---

**PSYC175 Social Psychology Laboratory**

**Telephone ID:** 25731333

Introduces conceptual and practical issues concerning research in social psychology and provides experience with several different types of research. This course is designed to consider in depth various research approaches used in social psychology through social attitude questionnaires, observational methods for studying ongoing social interaction, discussion and laboratory work. Limited enrollment. 24

**Exclusion:** PSY329

**Prerequisite:** PSYB07FS & PSYB07FS & PSY1018/S

**Session:** Winter Evening

T.B.A.

---

**PSYC44F Cognition and Representation**

**Telephone ID:** 25733433

A study of recent theories of perception and representation relevant to skill as the use of images and language. Topics may include making and interpreting metaphors, recognizing cross-modal equivalence, learning how to draw and symbolize in vision and touch, and the effects of blindness on the development of skills with patterns normally known in vision and audition. The research to be considered will emphasize studies on the blind, and child development. Teaching methods include lectures and demonstrations.

**Exclusion:** PSYB07FS & PSYB070FS & PSYB070FS plus one additional B-level half-course in PSY

**Session:** Winter Day

J. Basili

---

**PLC55F Psychology of Adolescents**

**Telephone ID:** 25731333

An exploration of the developmental psychology of young people. The course emphasizes the theories of human development and adolescent development and the role of memory systems in language processing. Limited enrollment.

**Exclusion:** PLC65S5/LJL65SS

**Prerequisite:** One full-course equivalent in LIM and one full-course equivalent in PSY

**Session:** Winter Day

R. Gough

Offered every year

---

**PSYC50F Experimental Psychology Microcomputer Laboratory**

**Telephone ID:** 25731333

This laboratory course emphasizes the use of microcomputers in preparing, controlling, and analyzing experiments. Limited enrollment. 25

**Exclusion:** PSY100

**Prerequisites:** Two B-level half-courses in Psy Theory and PSYB07FS or permission of the instructor

**Session:** Winter Day

G. Capatch
Society and Environment

Society and Environment 168

PSYCH675 Psychobiology of Aging
Tel: 2574675
This course offers the opportunity to engage in a year-long research project under the supervision of an interested, member of the faculty in Psychology. The project will culminate in a written report in the form of a thesis and a defense of that report. During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their investigations.

Limited enrollment: 3D Pre-requisite: NROB909F (PSYB009F)
Complementary: NROB909F (PSYB009F)
Session: Winter Day
G. Reay

PSYCH675 Thesis in Psychology
Tel: 2574898
This course offers the opportunity to engage in a year-long research project under the supervision of an interested member of the faculty in Psychology. The project may culminate in a written report in the form of a thesis and a defense of that report. During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their investigations.

Limited enrollment: 2D Pre-requisite: NROB909F (PSYB009F)
Complementary: NROB909F (PSYB009F)
Session: Winter Day
G. Reay

Courses Not Offered in 1998/99

PSYC310 Advanced Developmental Psychology
Exclusion: PSY311
Pre-requisite: PSYB070 & PSYB20 plus one additional B-level half-course in PSY Developmental Psychology
Exclusion: (PLCH240), (LPC151), SPC115H
Pre-requisite: One F.C.E. in PSY 1, and one F.C.E. in a second subject in either LIN, PSY or a discipline at the 2000 or 3000 level.
Psychometric Methods Laboratory
Pre-requisite: PSY101 & PSY107 & PSY107
Psychometrics Laboratory
Pre-requisite: PSY101 & PSY107 & PSY107
Learning Laboratory
Exclusion: PSY260, PSY359, PSY430
Pre-requisite: PSYB070 & PSYB070 (or equivalent)
Applied Psychology of Learning
Pre-requisite: PSYB070 & PSYB070 & PSYB459F
Psychology of Music
Pre-requisite: PSY301Y and PSYB070, and a PSYB070-series half-course.
Human Intelligence
Pre-requisite: PSYB070 & PSYB070 & PSYB070 & PSYB070 & PSYB070; also recommended

Society and Environment
(B.A.)

Faculty List
P.D. Barron, B.Sc., M.A., (NYU), Ph.D. (CUNY), Professor
J.M. Peters, B.A. (Queen’s), M.A. (Pitt), Ph.D. (Toronto) Professor
A.C. Reilly, B.A., M.Phil. (London), Ph.D. (Toronto) Professor
G.S. Stapleton, B.A., M.A. (Alabama), Ph.D. (British Columbia) Professor
M.F. Bunce, B.A., Ph.D. (Sheffield), Associate Professor
J. Hannigan, B.A., M.A. (Western), Ph.D. (Ohio State) Associate Professor
M. Latta, B.A. (Kansass), M.A., Ph.D. (Toronto) Associate Professor

L. Sewchuk, B.A., M.A. (Manitoba), Ph.D. (Toronto) Associate Professor
S. Ungur, B.A. (McGill), M.A., Ph.D. (York) Associate Professor

Discipline Representative / Supervisor of Studies: M.P. Bunce (287-7313)
The programme in Society and Environment offers an interdisciplinary approach to environmental issues from the perspective of the social sciences. It assumes that the distinction between environment, as externally understood, and the built, social, and political-economic environment is artificial, and that environmental problems are mostly created by human societies. A clear understanding of environmental issues from this perspective requires knowledge of social 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 environment processes. In this programme 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 Earth 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 PROGRAMME IN SOCIETY AND ENVIRONMENT

The requirements for this programme are eight full-course equivalents, as follows:
1. Introductory Course: 3 full-course equivalent required.
2. Focus course: one and four and one-half course equivalents from:
   - IDSO10RS (strongly recommended), ANT101Y, BCH109F, BCH109S, BCH109RS, ECON100F, OCC100Y, OCC100S, OCC100RS
   - IDSO10RS, BCH109F, BCH109S, BCH109RS, ECON100F, OCC100Y, OCC100S, OCC100RS

3. Theology.
   - One full-course equivalent required from: SOCL600Y, POLB100Y, POLB100S

4. Methodology.
   - One and one-half full-course equivalents from: SOCL600Y or STAB100Y or equivalent, POLC700Y, ECON100Y, ECON100RS, SOCL600Y

5. Advanced courses.
   - Two and half-course equivalents required, with at least one full-course equivalent from List A, and at least one full-course equivalent from List B:
     - LIST A: CORE
       - SOCE201S, SOCE202S, SOCC100Y, POLC210Y
     - LIST B: FOCUS
       - Food and Agriculture Courses
         - ANTR101Y, ANTR405Y, ECON100Y, ECON100S, GDC100Y, GDC100S, GDC100RS, GDC100RS
       - Urban Courses
         - ANTR101Y, ANTR405Y, ECON100Y, ECON100S, GDC100Y, GDC100S, GDC100RS, GDC100RS
       - Health Courses
         - ANTR101Y, ANTR405Y, ANTR405Y
     - LIST C: RELATED COURSES
       - ANTR201, POLC205Y, WSC903F

+ Pending approval of the Governing Council of the University

EOA101Y Global Processes and Environments
Tel: 4331016
An introduction to the patterns, processes and relationships underlying global trends. This course examines theories and methods that can help us to understand the environmental, economic and social changes that flow from globalization, and how these affect the quality of human life and of environment at many scales. Emphasis will be placed on the sustainability of these changes.

Co-ordinator: F. Walsh

Session: Winter Day

M. Bunce / E. Reilly
Sociology
(B.A.)

Faculty List
R.L. James, M.A. (Wayne State) Ph.D. (Oregon), Professor Emeritus
W.W. Jagow, B.A. (LaSalle), M.A., Ph.D. (Catholic Univ. of America), Professor
R. O'Toole, B.A. (Leeds), Ph.D. (London), M.A. (McMaster), Ph.D. (Toronto), Professor
M. Hammond, B.A. (California), M.A., Ph.D. (Toronto), Associate Professor
J. Hannigan, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Associate Professor
P.C. Huang, B.A. (National Chiao-tung University), M.A. (California), Ph.D. (California), Associate Professor
J.A. Lee, B.A., M.A., Ph.D. (Queen's), Associate Professor
A. Siv'er, B.A., M.A., Ph.D. (York, Canada), Associate Professor
J. Tanner, B.Sc. (Hons.), B.Eng. (Leicester), M.A., Ph.D. (Alberta), Associate Professor
S. Unger, B.A. (McGill), M.A., Ph.D. (York, Canada), Associate Professor

Discipline Representative: John A. Lee (287-7355)

Sociology is the scientific study of interaction among people, the social relations which they establish, and the social groups which they form. Sociology aims to explain how society is organized, 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 Programme.

The introductory course, SOC001Y, is intended to familiarize students with the distinctive theories, methods and questions of sociology as a part of a liberal education. In addition, the SOC001Y course provides a minimum background of knowledge about sociology, and hence is a prerequisite to many of the more advanced courses.

Students who want to learn about certain areas of sociology which may be useful in later occupational situations may consult faculty advisors who are prepared to assist them in course selection. There are no formal requirements for these special areas and they will not be designated on diplomas.

The faculty advisors for special areas of concentration are:

- Social Work Prof. A. Siv'er Urban Studies Prof. J. Hannigan Education Prof. I.A. Lee

Students are strongly advised to make required courses in the Major and Specialist Programmes as early as their careers as possible. For example, SOC005, SOC006 and SOC008 should be taken during the second year, and SOC005 should be taken during the third year.

Failure to do so may lead to timetable conflicts and could prolong the completion of the programme.

SPECIALIST PROGRAMME IN SOCIOLOGY

Supervisor: J. Hannigan (287-7356)
The Programme requires completion of ten full-course equivalents as described below. No more than fourteen full-course equivalents in Sociology may be included in a four-year degree.

1. SOC001Y Introduction to Sociology
2. SOC005Y Methods in Social Research
3. SOC003Y Classical Sociological Theory
4. SOC006YS Social Statistics
5. Two full-course equivalents at B-level in Sociology
6. SOC005Y Contemporary Social Theory
7. One and a half full-course equivalents at C-level
8. One full-course equivalent at D-level
9. Other B- or C-level full-course in Sociology

MAJOR PROGRAMME IN SOCIOLOGY

Supervisor: J. Hannigan (287-7356)
The Programme requires completion of seven full-course equivalents in Sociology including:

1. SOC001Y Introduction to Sociology
2. SOC005Y Methods in Social Research
3. SOC003Y Classical Sociological Theory
4. SOC006YS Social Statistics
5. Three and a half full-course equivalents in Sociology, at least one of which must be at the C-level

MINOR PROGRAMME IN SOCIOLOGY

Supervisor: J. Hannigan (287-7356)
The Programme requires completion of four full-course equivalents in Sociology including:

1. SOC001Y Introduction to Sociology
2. Three full-course equivalents in Sociology, at least one of which must be at the C-level

SOC001Y Methods in Social Research

Supervisor: J. Hannigan (287-7356)
The course will be divided into three basic units. It will begin with a critical overview of the logic and methods of social scientific research. Topics will include the logic of research, research design and causal analysis, and methods of data collection. Once the fundamentals have been covered, an effort will be made to teach students how to "read" and critically evaluate research reports. Several studies will be given the opportunity to do their own evaluations. The final goal will be to provide some practical
experience in doing research. Using data sets provided by the instructor, students will be taught how to interpret tables and to employ data to test hypotheses. Exclusion: SOC200
Prerequisite: SOCA01Y
Session: Winter Day
John A. Lee

SOC305Y Structure of Interpersonal Relations
Telephone ID #: 28620501
A study of the patterns of interaction and influence in interpersonal relations.

The course begins with a consideration of the problem of social order; i.e., how do we construct individual desires and induce people to act morally. We will also examine the problem of the "abused", using Camus' Outsider. This will be followed by an examination of impression management and exchange theories. Special attention will be given to the role of other persons in "alternating" our behaviour, with examples drawn from research on mental illness and stereotyping. Other topics include status and power relations in small groups, social influence processes, and the psychological of class, sex and race relations.

Exclusion: SOC202
Prerequisite: SOCA01Y
Session: Winter Day
John A. Lee

SOC306Y Classic Sociological Theory
Telephone ID #: 28620502
This course will focus on the development of sociological theories within the general frame of the history of social thought. We will study a brief review of the antecedents of sociological thought in social philosophy from classical antiquity to the 18th century, the emergence of sociology when examined within the context of the rise of political and social changes. Special consideration is given to the works of Comte, Marx, Tocqueville, Durkheim, Weber, Simmel and Freud. The significance of their theories for contemporary developments in sociology is emphasized.

Exclusion: SOC203
Prerequisite: SOCA01Y
Session: Winter Day
M. Hammond

SOC306Y Urban Sociology
Telephone ID #: 28620503
A review of theories of urban genesis and urban form, the interrelationship of urbanization, industrialization and modernization, issues in urban living (housing, transportation, urban-renewal, poverty, unemployment, etc.), urban social networks (time and cultural heterogeneity, neighborhood, community and other voluntary associations).

Prerequisite: SOCA01Y
Session: Winter Day
J. Hamegan

SOC306Y Social Statistics
Telephone ID #: 28620503
A consideration of elementary statistics including the summarizing of data, the logic of statistical decision-making and a number of common statistical tests. Statistics is a basic tool used by sociologists. An understanding of statistics is necessary for the student who wants to become an informed reader of social research. A working knowledge of elementary algebra is required. However, the lecturer will undertake brief reviews of mathematics as the need arises. This course is intended to supplement SOCO01.

Exclusion: ANTC01, ECON101, PSY207, STAR0202, SOCIO04
Prerequisite: SOCA01Y
Session: Winter Day
S. Ungar

SOC307Y Social Class and Social Strain
Telephone ID #: 28620503
Description and analysis of the nature of social stratification with emphasis on the basis of stratification; different theoretical views concerning the logic of the structure and function of stratification systems, social classes and associated behaviour; social mobility; and class conflict.

Exclusion: SOC201
Prerequisite: SOCA01Y
Session: Winter Day
M. Hammond

SOC312Y Sociology of the Family
Telephone ID #: 28620503
This course explores the family as a social institution, which shaped and at the same time is shaped by, the society in which it operates. We will study cross-cultural and historical variations in family organization. We will look at the relations between family organization and structural factors such as class, gender, and race/ethnicity. The objectives of the course are to provide students with a sociological understanding of issues related to the family, to help students develop critical skills in analyzing these issues, and to gain insights into the implications of these issues.

Exclusion: SOC214, SOC302
Prerequisite: SOCA01Y
Session: Winter Day
T.B.A.

SOC319Y Sociology of Deviant Behaviour
Telephone ID #: 28621363
An analysis of the social processes by which behaviour is defined and treated as criminal, immoral, disgusting, sick, or merely eccentric; the establishment and administration of sanctions, treatment and other controls; deviant subcultures; and specific categories of deviance, such as crimes against persons, "victimless crimes", mental illness, sexual deviation and alcoholism.

Exclusion: SOC212
Prerequisite: SOCA01Y
Session: Winter Day
M. MacKinnon

SOC320Y Ethnic and Race Relations
Telephone ID #: 28620503
A study of the structure and processes in a society made up of a variety of ethnic and racial groups. The focus will be on Canada. The course will study ethnic stratification, immigration, prejudice and discrimination, ethnic social mobility and ethnic conflict, assimilation and ethnic identity, nationalism, and the problems of integration of society. Specific topics will include: conflict of generations, superstarification, Canadian multiculturalism and nationalism and others.

Exclusion: SOC210Y
Prerequisite: SOCA01Y
Session: Winter Day, Summer Evening
T.B.A.

SOC320F Collective Behaviour
Telephone ID #: 28620503
The study of uninstitutionalized group behaviour: crowds, panic, crime, riots and the genesis of social movements.

Prerequisite: SOC306Y & one B-level course in Sociology
Session: Winter Day
J. Hampl
SOC317S Social Change in the Third World
Telephone ID #: 28631753
An examination of sociological studies of stratification, politics, religion, education, and kinship organization in countries of Africa, Asia, and Latin America.
Prerequisite: SOCA11Y & SOCE25F/5 & one or one-half other B-level full-course equivalents in Sociology
Session: Winter Day
P-C. Ritang

SOC321Y Sociology of Religion
Telephone ID #: 28632163
A sociological analysis of religion as a social institution.
Consideration of the definition of religion, analysis of major theoretical and empirical contributions to the field, and investigation of forms of religion in historical and contemporary contexts.
Exclusion: (SOC31Y)
Prerequisite: SOCA11Y & SOCR10Y & one other B-level full-course equivalents in Sociology
Session: Winter Day
R. O'Teale

SOC322S Qualitative Methods in Social Research
Telephone ID #: 28632353
An examination of the use of non-statistical methods for systematic analysis of social behavior. Each student will develop craftsmanship in participant observation, ethnography, and sociohistorical methods by completing field and ethnographic analysis and analysis.
Prerequisite: SOCA10Y & one B-level full-course equivalents in Sociology
Session: Winter Day
P-C. Ritang

SOC323F Changing Family Life in Canada
Telephone ID #: 28632353
An examination of the major changes in the structure of the family in Canada, and their consequences for family life.
Prerequisite: SOCA11Y & SOCB12 & one other B-level full-course in Sociology.
Session: Winter Day
A. Sever

SOC324S Comparative Ethnic and Race Relations
Telephone ID #: 28632533
A comparative study of relations between different ethnic and racial groups in selected societies.

SOC325F Environment and Society
Telephone ID #: 28633753
This course links studies in the classical sociology of resources and territory (as in the works of Harold Inglis, S.D. Clark, and the Chicago School), with modern topics in ecology and environmentalism. The course will include empirical research, and theoretical issues, in the relationship of various social systems to their natural environment.
Prerequisite: SOCA11Y & two B-level full-course equivalents in Sociology
Session: Winter Day
J. Law

SOC404F Supervised Independent Research
Student research by field methods, survey analysis or library or archival research. Regular supervision of data collection and analysis, culminating in a research report. Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusion: (SOC790, SOC791, SOC792)
Prerequisite: Completion of at least fifteen full-course equivalents and permission of the instructor.
Session: Spring Evening, Winter Day, Winter Evening

SOC425S Advanced Seminar in Research Methods
Telephone ID #: 28644353
Special topics in methodologies used in contemporary sociological research.
Designed as a final year course for students taking a Specialised Programme in Sociology.
Prerequisite: SOC101Y & SOC200FS
Session: Winter Day
S. Unger

SOC444F Advanced Seminar on Issues in Contemporary Sociology
Telephone ID #: 28644333
This course will explore a number of recent issues and controversies which engage the attention of sociologists according to their disciplinary specializations. It is intended to expose students to the most recent and newly emerging developments and scholarly discussions within the field. The course is designed as a three year course for students taking a Specialised Programme in Sociology.
Prerequisite: SOCA10Y & two B-level & two C-level full-course equivalents in Sociology
Session: Winter Day
R. O'Teale

SOC504Y Political Sociology
Prerequisite: One full-course equivalent in Sociology

SOC523F Comparative Social Structure
Exclusion: (SOC332Y)
Prerequisite: SOC31Y

SOC595Y Social Change
Exclusion: (SOC532Y)
Prerequisite: SOC11Y

SOC601Y Sociology of Work and Industry
Exclusion: (SOC301Y)
Prerequisite: SOC101Y

SOC622Y Small Groups
Exclusion: SOC507F
Prerequisite: SOC201Y & SOC202Y & one other B-level full-course equivalent in Sociology

SOC656F Sociology of Conflict and Cooperation
Prerequisite: SOC101Y & SOC204Y or SOC101Y or SOC205Y or permission of the instructor

SOC662F Sociology of Culture
Exclusion: (SOC422Y)
Prerequisite: SOC101Y & SOC204Y & one other B-level full-course equivalent in Sociology

SOC679F Sociology of Knowledge
Comparison of both sociological and cultural perspectives to the development of Western scientific knowledge. The course examines the interface of culture and knowledge (i.e., knowledge as culture and culture as knowledge).
Prerequisite: SOC101Y & two B-level full-course equivalents in Sociology

SOC679F Sociology of Urban Growth
Prerequisite: SOC31Y & one other B-level full-course equivalent in Sociology

SOC740Y Sociology of Mass Media and Communication
Exclusion: (SOC31Y)
Prerequisite: SOC205Y

SOC801Y Advanced Seminar in Sociological Theory
Prerequisite: SOC51Y & SOC53Y

SOC802Y Sociology of Education
Exclusion: (SOC424 and SOC525)
Prerequisite: SOC101Y

SOC803Y Sociology of Work and Industry
Exclusion: (SOC301Y)
Prerequisite: SOC101Y

SOC804Y Sociology of Urban Growth
Prerequisite: SOC101Y & SOC504Y & one other B-level full-course equivalent in Sociology

SOC805Y Sociology of Mass Media and Communication
Exclusion: (SOC31Y)
Prerequisite: SOC51Y & SOC53Y

Courses Not Offered in 1999/99

SOC804Y Political Sociology
Prerequisite: One full-course equivalent in Sociology
MAJOR PROGRAMME IN SPANISH LANGUAGE

Supervisor: R. Skyme (287-7147)

The Major Programme in Spanish Language is being phased out. Every reasonable effort will be made to allow students registered in this programme to complete it.

MINOR PROGRAMME IN SPANISH

Supervisor: R. Skyme (287-7147)

The Minor Programme in Spanish Language is being phased out. Every reasonable effort will be made to allow students registered in this programme to complete it.

SPAA01Y Introductory Spanish

Telephone ID #: 28730233
Prerequisite: SPA220.
Session: Winter Day
R. Skyme

SPAA02H Introductory Spanish Language Practice

Telephone ID #: 28730233
This course concentrates on an intensive review of Spanish grammatical principles in the context of written exercises, compositions, and some translations.
Exclusion: SPA220 (SPA01).
Prerequisite: OAC Spanish or Grade 13 Spanish or SPA001.
Session: Winter Day
R. Skymé

SPAA03Y Practical Translation

Telephone ID #: 28730333
A workshop in translation from and into Spanish.
Exclusion: SPA220 (SPA01).
Translation of texts from such fields as advertising, commerce, entertainment, law, medicine, politics, science and technology, and sport will broaden students’ vocabulary and develop proficiency in handling a variety of non-literary modes of expression. Evaluation is based on homework assignments, active participation in class discussion, and an oral examination.
Exclusion: SPA220 (SPA01).
Prerequisite: SPA001 or SPA02.
Session: Winter Day
R. Skyme

SPAA01Y Advanced Spanish

Telephone ID #: 28730233
Intensive study of grammar and syntax; translation, composition, and oral practice.
Detailed examination of the subtleties of Spanish grammar through intensive practice in translation from and into Spanish, composition, and conversation.
Three hours per week in lecture/tutorial format.
Exclusion: SPA120.
Prerequisite: SPA001 or SPA02.
Session: Winter Day
R. Skyme

SPAA02F Business Spanish

Telephone ID #: 28730233
The Spanish language in a business context.
The course is designed primarily for students in the Management/Language Programme but is open to all those interested in sharpening language skills particular to a career in the commercial world. Class sessions will be practical in focus and consist of such activities as translation, correspondence, and individual and group oral presentations complemented, where possible, by audiovisual and computer material. The aim is to develop facility in the vocabulary and structures of this specialized use of the Spanish language.
Exclusion: OAC or Corequisite: SPA001.
Session: Winter Day
R. Skyme

SPAC23S Modern Hispanic Short Fiction

Telephone ID #: 28732333
Reading and discussion of modern short fiction from the Hispanic world. Examples of short fiction (cuentos, leyendas, poemas en prosa) by a variety of modern Spanish and Spanish-American authors will give language students an opportunity to practice and develop their skills in a stimulating, imaginative context. Written and oral assignments, active class participation, and an examination.
Exclusion: SPA484H
Prerequisite: SPA001 or SPA02.
R. Skyme
to work across all the arts. All students in the programme 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. The Specialist Programme in Visual and Performing Arts requires the completion of fourteen and a half full-course equivalents within a twenty-course degree as follows:
1. At least three full-course equivalents from:
   - VPA109F Experiencing the Live Theatre I
   - VPA110Y Foundation Studies in Studio
   - VPA120J Introduction to Music
   - VPA121Y Listening to Music
   - VPA121Y Introduction to Arts Management
   - VPA121Y Experiencing the Live Theatre II
   - VPA120F Critical Thinking and Writing in the Arts
   - VPA120F Computers and the Arts
   - VPA120S Research in the Arts
   - At least one of the following courses:
     - ENGB120Y What is Culture?
     - PHIL100F Philosophy of Art
     - PHIL5000S Philosophy and Culture
     - VPA1105F But Why Is It Art?
     - VPA1105F Cultural Policy
   - VPA121H Current Issues in the Visual and Performing Arts
   - VPA121H Seminar in Visual and Performing Arts
   - VPA121H Projects in Visual and Performing Arts
   - Further VPA courses and other electives, two full-course equivalents of which must be at the Co- or 2-Level, to bring the total taken within the programme to fourteen and a half full-course equivalents. These may include the courses listed for a Major in art history, drama, music history, or studio, or a broad selection of approved courses from the arts and related areas.
   - Consultation with the Supervisor is essential for all students in each year of their programme. Students who are considering continuation to the graduate level must also consult the Supervisor of the relevant Major programme in order to plan the selection of courses to fulfill the fifth requirement of the Specialist programme.
   - It is suggested that students complete the initial requirements as soon as possible. Admission to the programme will be offered to applicants who have completed (or are completing) at least two of these courses and who have demonstrated ability through academic and other achievements, interview with faculty and students, and performance at the Specialist level.

Discipline Representative: W. Bowen (287-7194)

This programme 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 interrelationships among them, and for those who wish to develop their practical abilities. The programme is a basis for careers or further study for future practitioners in the arts, for gallery and museum professionals, for academicians, and for those who want a thorough knowledge of history, theory and practice in the arts. Students must apply for admission to the programme, and may obtain details from the Supervisor.

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 these core options range from concentration in one area
Topics vary. The Supervisor can advise students on the topic chosen for a given year.

Prerequisites: 10 F.C.E.s from the Specialist programme in VPA

Semesters: Winter Day

W. Bowles

VPA022H Project in Visual and Performing Arts

Telephone ID: 40740243

A collaborative project involving various arts and media, to be carried out by students in the final year of the Specialist Programme in Visual and Performing Arts.

The character and themes of the project will vary from year to year. The Supervisor can provide more information.

Prerequisites: 10 F.C.E.s from the Specialist Programme in VPA

Semesters: Winter Day

P. Stavridis

General Courses Not Offered in 1998/99

VPA005 First Nations Cultures in North America

VPA01H Current Issues in the Visual and Performing Arts

Prerequisites: 3 F.C.E.s from the Specialist Programme in VPA

including VPA022H & VPA00495

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 in and around the city. Although some of the courses reflect a traditional structure 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.

MAJOR PROGRAMME IN ART HISTORY

SUPERVISOR: L. Camery (287-7171)

Students must complete seven full-course equivalents as follows:

1. One and one-half full-course equivalents at the A-level
2. Four full-course equivalents at the B-level, including at least one course in art outside the Western world, and courses representing at least three geographical areas of the Western world. Students must substitute one full-course equivalent from VPA or another discipline (such as VPA0554 and VPA0506) if the Supervisor approves.
3. One and one-half full-course equivalents in art history at the C- or D-level (or at the 304/400 level on the St. George campus).

MINOR PROGRAMME IN ART HISTORY

SUPERVISOR: L. Camery (287-7171)

Students must complete four full-course equivalents as follows:

1. One and one-half full-course equivalents from VPA414-VPA444
2. One and one-half full-course equivalents from VPA461-VPA59
3. One full-course equivalent in art history at the C- or D-level, chosen in consultation with the Supervisor.

VPA414 Introduction to Art

Telephone ID: 4071463

An introduction to the basic concepts and methods used in the study of art at the College.

The course emphasizes the cultural, economic, social and political factors affecting the making of art, as well as changing interpretations and uses. The course is recommended to all students. Exclusions: FAN100, (PARADIV)

Semesters: Winter Day

L. Camery

Offered: 1999/2000

VPA425F Ancient Art and Architecture (ca. 900 B.C. - 360 A.D.)

Telephone ID: 4071423

The artistic achievements of Greece and Rome.

This course is basic to the study of all subsequent periods of Western Art. It examines Greek Architectural design with its concerns for ideal proportion and balance, best exemplified in the well known columnar temples. Next it deals with Roman technical inventiveness, which among other changes made it possible to create large interior spaces and to introduce new types of urban buildings. The course will also show how Classical painting and sculpture influenced later culture; through its depiction of particularly legendary and archetypal figures. Orpheus, the god of music, and his techniques intended to create for the first time an illusion of the grand world.

Exclusions: FAN250, FAN304, FARA101

Semesters: Winter Day

M. Shaw

VPA433 Medieval Art

Telephone ID: 4071433

A survey of European architecture, sculpture, painting, illumination, and minor arts from the late Roman Empire to the end of the Middle Ages.

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

Texts will include E. Kitzinger, Early Medieval Art; R. Krautheimer, Early Christian and Byzantine Architecture; O. von Simson, The Gothic Cathedral, and others.

Exclusions: FAN261, FARA111

Semesters: Winter Day

T.B.A.

VPA445F Renaissance and Baroque Art

Telephone ID: 4071463

A survey of architecture, painting and sculpture from the 13th to the 17th century.

The course will present important movements especially from Italy and the Netherlands, including works by such artists as Jan van Eyck, Leonardo da Vinci, Michelangelo, Rembrandt, and Bernini.


Exclusions: FARA129, FARA279

Semesters: Winter Day

R. Sarris

VPA015 The Body: Representations and Theories

Telephone ID: 4072015

An investigation of representations of the body produced in the last two centuries in both "high culture" and mass culture, using contemporary theories, in particular theories about gender and sexuality.

What makes some representations of the body popular, successful, "cool"? What are some of the issues involved, such as identity, gender, ethnicity, sex, time, space, vision, and representation? Problematic cultural and institutional uses. The study of the body is part of the study of the social and the political. How is the body a social and political fact? The social construction of the body and its representation. The body as a commodity: fashion and the body; the body of fitness and the body of disease. The development of the body as a cultural and political object. The body in art, film, and literature, focusing on a variety of representations and reconstructions of the body. The body as a subject of cultural and political power.
will learn to apply a variety of theories to images, in ways that challenge received notions about the body as purely natural. Co/Prerequisite: VPA441Y (PARA0Y) or VPA449Y (FARB0Y) or WSTA01Y or permission of the instructor.
Session: Winter Day
L. Comery

VPA432S The Arts in Northern Europe ca. 1400-1500
Telephone ID: 40725453
The Northern Renaissance, with emphasis on the Netherlands.
The course concentrates on the development of painting from Jan van Eyck’s brilliantly colored works to the imaginative subjects of Hieronymus Bosch. The works selected will illustrate some of the problems faced by students of art, such as the Identification of artists on the basis of documents and the analysis of style and subject matter. The text is Ch. Currie’s, "Northern Painting, Ny, 1968 (softcover edition)."
Exclusion: FAD100Y, FADB100F
Session: Winter Day
R. Siebehoff

VPA435S Art in the Age of the French Revolution
Telephone ID: 40725455
European painting, sculpture and architecture between 1750 and 1830.
The course focuses on Paris, which was not only the centre of the French Revolution but also the location of the great studios of Boucher, David, Ingres, and Delacroix. Exclusion: FAD100Y, FADB100F
Session: Winter Day
R. Siebehoff

VPA441F Imagism
Telephone ID: 40726630
A study of Imagism as a turning point in Western art.
The rapidly expanding city of Paris, with its great boulevards and arcades, was a major meeting place in the second half of the nineteenth century. Using the economic and artistic resources of this international center, the Imagist, in an effort to escape from the recurrences of scenes of nature and of daily life. These paintings are dense, informative, colourful and have an immediate beauty of pattern. In Greece and the Aegean islands, in contrast, paintings decorate palaces and houses. They often glorify nature and are rendered in a lyrical and impressionistic style. Focusing in themselves, the paintings of these two contemporary but different societies provide materials for illuminating comparisons and for detecting possible artistic interaction. Exclusion: FAD100Y, FARD100F
Prerequisite: One full-course equivalent in art history at the B-level or permission of the instructor.
Session: Winter Day
M. Shaw

VPA443S Franca Hals, Rembrandt, and the Seventeenth-Century Art
Telephone ID: 40724513
A survey of seventeenth-century Dutch and Flemish art, with an emphasis on the artists’ influences and the nature of art.
Exclusion: FAD100Y
Session: Winter Day
L. Comery
Not offered: 1999/2000

VPA448Y Women and Visual Art
Telephone ID: 40724519
The influence of feminism on making and understanding art in the last 150 years. Using internal sources, the course discusses women artists and their relationship to "mainstream" art. It also studies the impact of feminist theories on art movements and the changes they have engendered.
Exclusion: FAD660Y
Prerequisite: WSTA01Y or VPA441Y (PARA200Y or VPA441Y or FAD100Y or FADB100F) or permission of the instructor.
Session: Winter Day
L. Comery / J. Hoeppner
Not offered: 1999/2000

VPA4451 Wadi Painting in Ancient Egypt and the Bronze Age Aegean (2200-1200 B.C.)
Telephone ID: 40724515
A study of painting in tempera and fresco in two ancient cradles of human civilization:
In ancient Egypt the tomb of the king is a world of images and telling facts. From the busts of the queen’s head in their own characters to their dependency on the living and impressive style. Focusing in themselves, the paintings of these two contemporary but different societies provide materials for illuminating comparisons and for detecting possible artistic interaction. Exclusion: FAD100Y, FARD100F
Prerequisite: One full-course equivalent in art history at the B-level or permission of the instructor.
Session: Winter Day
M. Shaw

VPA441Y The Human Figure in Greek Art (18th-4th Centuries B.C.)
Exclusion: FAD100Y
Pre- or Co-requisite: Any course in art history of VPA201 or VPA203
Session: Winter Day
M. Shaw

SPECIALIST (CO-OPE) PROGRAMME IN ARTS MANAGEMENT
Coordinator: Shelley Crawford (287-7144)
Supervisor: L. Beggan (287-7173)
The Co-operative Programme in Arts Management is designed for students with an interest both in the arts and in business or management, and normally requires four to five years to complete. It combines academic study in the wide variety of subjects with practical work experience, preparing students for permanent employment as arts managers, or for further studies in Business Administration, Museum Studies, Drama, Music, Art History or Studio.

Admission to the Programme
Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or first year university. The timing of work placements for students who receive transfer credit will depend upon the particular university courses completed. When applying, applicants must indicate the special code for this Scarborough programme on the Application Form for Admission To The Ontario University. Once the University of Toronto is notified of the applicant, candidates are sent for interview.

Visual and Performing Arts / Arts History
co-op application form to complete. To be considered for the first round of selection, co-op applications must be received by the University no later than April 15. Therefore it is essential that the applicant apply to the University at least six weeks prior to this date.

Note that enrollment in the programme is limited. Interviews are held normally in May for students who pass the initial screening. 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. Facilities in another language and OAC accounting are highly desirable.

Fees
All students in a co-operative programme are required to pay additional fees as established by the University.

This programme requires twenty academic full-course equivalents (four years) of study and two work terms of twelve to sixteen weeks each. Students complete 5 full-course equivalents in (A) the administrative field, 6 full-course equivalents in (B) the artistic field and 5 additional full-course equivalents from (C) an elective field. In addition extra credits are awarded for the work terms.

A. Management Field of Study
The following nine full-course equivalents are required:
- VPA101Y Introduction to Arts Management
- VPA101H WorkShop in Arts Management
- VPA107Y Cultural Policy
- VPA108Y Senior Seminar in Arts Management
- ECO350Y Introduction to Economics
- ECO350Y Public Decision Making
- MGT120Y Introduction to Management
- MGT210Y Financial Accounting
- MGT220Y Managing People in Organizations
- POLA52Y Introduction to Canadian Politics

In addition students are expected to use some of their elective credit (C) to take further courses in Management. The following courses are recommended:
- CSC407Y The Why and How of Computing
- ECO205Y Economics of the Media
- MGT205Y Management Accounting
- MGT305Y Organization in the Not-For-Profit Sector
- MGTC05Y Principles of Marketing
- MGTC16Y Management Control Systems
- MGTC11Y Management Information Systems
- MGTC19Y The Legal Environment of Business I
- MGTC29Y The Legal Environment of Business II
- MGTC39Y Entrepreneurship
- MGTC41Y Management Policy and Strategy
- POLA72Y Political and Social Theory of Contemporary Society

Please note that many of the above courses require prerequisites and/or permission of the instructor.

B. Artistic Field of Study
Six full-course equivalents from one of the following fields:
- Art History
  - From the courses listed under Art History: one full-course equivalent at the A-level, four full-course equivalents at the B-level, including at least one course in art outside the Western world and courses representing at least three geographical areas of the Western world; and one full-course equivalent at the C- or D-level.
- Drama
  - VPA313Y An Introduction to the Practical Elements of Theatre
  - VPA305Y The History of Theatre I: From Classical Antiquity to the Elizabethan and Jacobean Theatres
  - VPA215Y The History of Theatre II: From the Restoration Theatre to the Theatre of the First Half of the 19th Century
  - VPA325Y The History of Theatre III: Modern Theatre
  - ENG211Y The World of the Play and two and a half full-course equivalents from Drama, one of which must be at the C- or D-level.
- Music
  - VPA405Y Introduction to Music
  - VPA405Y Materials of Music I
  - VPA415Y Materials of Music II
  - four additional full-course equivalents from Music including at least one and one half full-course equivalents from VPA410-Y, VPA415-Y, and two and one-half full-course equivalents from VPA490-Y, VPA495-Y and VPA410-Y.

IV. Studio
- VPA106Y Foundation Studies in Studio
- VPA106Y Drawing I
- VPA106Y Drawing II
- VPA106Y Painting I
- two and one-half additional full-course equivalents in Studio of which one must be at the C-level.

* Students must meet the prerequisite for VPA405-Y, an OAC in visual art or permission of the instructor following a positive evaluation of a portfolio.

C. Elective Field of Study
A further five full-course equivalents chosen in conjunction with the programme supervisor. The purpose of the elective field is to allow students some flexibility in shaping a degree programme to their interests and future needs. In making their choices students should remember that a working knowledge of a second language, especially French, may be particularly valuable.

Students are encouraged to use their electives to take some of the following courses:
- VPA305Y Critical Thinking and Writing in the Arts
- VPA310Y Computers and the Arts
- VPA315Y Research in the Arts
- ENG505Y What is Culture?
- HHL110Y Philosophy of Art
- HHL120Y Philosophy and Culture
- VPA105Y Art and Science

Eligibility for work placements
To compete for work placement a student must be in good standing in the Programme and must have completed at least ten full-course equivalents including:
- two full-course equivalents from the artistic field
- VPA101Y Introduction to Arts Management
- VPA101H WorkShop in Arts Management
- MGT202Y Introduction to Management

Normally students return to their studies after each work term, and must be registered in courses after the completion of their last work term. VPA101Y is taken after the completion of the first work term.

Standing in the programme
To maintain standing in the programme, to be eligible for work placement and to receive specialist certification upon graduation, a student must:
- maintain a cumulative grade point average of at least 2.50
- receive a satisfactory evaluation for work term performance and work term report
- complete a full course of study (at least two full-course equivalents and normally four courses) during each work term
- participate in special events and seminars arranged by the co-ordinator.
Visual and Performing Arts / Drama

Courses in the first two years of the programme

The first year of study should consist of VPAB10Y, one full-course equivalent from the artistic field, MGMTA27, and further courses in the artistic or management field.

The second year of study should consist of five full-course equivalents to include ECOA01Y and a balanced mixture of management and artistic courses. Students are encouraged to consider courses listed under Effective Field of Study.

VPAB10Y Introduction to Arts Management
Telephone ID #: 40721063
An introduction to the theory and practice of arts management in Canada.

The course will examine the context of the arts in society in general and in Canada in particular; the various cultural elements of the cultural ecology in Canada, including arts organizations and government agencies; the history and current status of the arts sector in Canada; the relationship between the arts and government; the role of the arts in society; and the role of arts organizations.

The course will provide students with the skills needed to function in the field of arts management. Students will be introduced to the basic concepts of arts management and will be given the opportunity to apply these concepts in practical situations.

Exclusion: (HUMA90, AAD101Y)
Session: Winter Day
S. Crawford
Offered: 1999/00

VPAB11R Workshop in Arts Management
Telephone ID #: 40721143
An introduction to practical Arts Management Skills.

This course is designed to supply students with the skills and knowledge needed in the environments in which they will encounter work placements. Information is provided in a series of seminars and workshops given by practicing members of the business and arts management professions. There will be twelve (12) meetings during the academic year. Topics to be covered include: funding, marketing, grant writing and grant applications, and technical management, computer applications. Under the supervision of a faculty advisor, students will prepare a major report on a topic to which they are given during the course. A final report is to be submitted on the last day of the course. The course will provide students with the skills and knowledge needed to function in the field of arts management. Students will be given the opportunity to apply these concepts in practical situations.

Exclusion: (HUMA90, AAD101Y)
Session: Winter
S. Crawford
Offered: 1999/00

VPAC10Y Senior Seminar in Arts Management
Telephone ID #: 40741063
This course focuses on the changing context for arts and cultural activity seen through the prism of cultural policy. The course will provide a forum for students to deepen their insights into important current issues facing the arts and to strengthen critical thinking, communication and decision-making skills. Attention is directed to strengthening process skills ("learning by doing") and helping students build integrating frameworks for locating experience and building professional expertise.

Students will complete a major research project on an area of Arts Management related to career goals and interests. A key component of the course is a mentorship program that links students with practicing arts managers. Through face-to-face discussion groups, internet-based research and other channels students will be exposed to the use of digital media as a professional learning tool.

Exclusion: (HUMA10, AAD101Y)
Session: Winter Day
G. Backer
Offered: 1999/00

Drama

The drama courses have been designed to teach students who intend to major in Drama, students who wish to gain practical experience in Visual and Performing Arts, and students who have a general interest in drama. We offer two types of courses which complement each other: theoretical and practical. The theoretical courses are in the history of theatre and special aspects of theatre history and theory. In the practical courses, students become acquainted with as many aspects of theatre production as possible, both in the theatre and in film and television. Participation in public productions at the College is strongly encouraged.

MAJOR PROGRAMME IN DRAMA

Supervisor: M. Q. Schoenberg (287-1165)
An introductory practical course, concentrating on the non-literary aspects of theatre.

In the workshop students will study basic acting techniques (including basic training in voice, movement, script interpretation, and building a character), and will also be introduced to such technical skills as lighting, sound, makeup, set construction and painting. Students are encouraged to participate in at least one production per term. Two-hour workshops per week, plus additional time as necessary for rehearsals and/or production meetings, etc. Careful preparation for each workshop is essential.

Exclusion: (DRAB01Y, DRM020)
Session: Winter
M. Q. Schoenberg (5000)
Offered: 1999/00

VPAS1Y An Introduction to the Practical Elements of Theatre
Telephone ID #: 40713163
An introductory practical course, concentrating on the non-literary aspects of theatre.

In the workshop students will study basic acting techniques (including basic training in voice, movement, script interpretation, and building a character), and will also be introduced to such technical skills as lighting, sound, makeup, set construction and painting. Students are encouraged to participate in at least one production per term. Two-hour workshops per week, plus additional time as necessary for rehearsals and/or production meetings, etc. Careful preparation for each workshop is essential.

Exclusion: (DRAB01Y, DRM020)
Session: Winter
M. Q. Schoenberg (5000)
Offered: 1999/00

VPAS1X An Introduction to the Practical Elements of Theatre
Telephone ID #: 40713093
An introductory practical course, concentrating on the non-literary aspects of theatre.

In the workshop students will study basic acting techniques (including basic training in voice, movement, script interpretation, and building a character), and will also be introduced to such technical skills as lighting, sound, makeup, set construction and painting. Students are encouraged to participate in at least one production per term. Two-hour workshops per week, plus additional time as necessary for rehearsals and/or production meetings, etc. Careful preparation for each workshop is essential.

Exclusion: (DRAB01Y, DRM020)
Session: Winter
M. Q. Schoenberg (5000)
Offered: 1999/00

Visual and Performing Arts / Drama

Visual and Performing Arts / Drama

2. VPAB10Y The History of Theatre I: From Classical Antiquity to the Elizabethan and Jacobean Theatres.

3. VPAB11R The History of Theatre II: From the Renaissance to the Theatre of the First Part of the 19th Century.


5. VPAB23B The History of Theatre in Canada. This course will cover the following topics: the history of Canadian theatre from the earliest settlement to the present day. Students will study the development of Canadian theatre from the earliest settlement to the present day. Students will be introduced to the history of Canadian theatre and to the major figures and events in the development of Canadian theatre.

6. VPAB31Y The History of Theatre in Canada. This course will cover the following topics: the history of Canadian theatre from the earliest settlement to the present day. Students will study the development of Canadian theatre from the earliest settlement to the present day. Students will be introduced to the history of Canadian theatre and to the major figures and events in the development of Canadian theatre.
VPA353Y Technical Production
Telecourse ID: 40723563
An introduction to the fundamentals of the technical production process. Students will study the essentials of production and stage management, theatre management, set building and painting, stage lighting, and sound design. As part of the course, students will also assume responsibility for some of the technical and production problems available in college productions. Exclusion: (DRA220B), (DRM254Y)
Pre-or Co-requisite: VPA351Y
VPA359Y.png
VPA359Y Pre-requisite: DRM254Y
VPA331F Advanced Workshop: Performance and Directing
Telecourse ID: 40731133
Detailed textual analysis, in-depth scene study and elements of directing for the stage in a studio setting. Detailed study of a play which will be produced in the second term. The course will include work on theatrical technique in areas such as period style, masks, improvisation, etc. Exclusion: (DRA220Y), (DRA220S), VPA2584, DRM254Y, DRM256
Prerequisite: VPA2584
VPA293Y Introduction to Asian Theatrical Traditions
Telecourse ID: 40725553
The students will be introduced to some of the major theatrical traditions of Asia. The principles of Chinese theatre from the Yuan and Ming Dynasties, and of the Chinese opera (Beijing Opera) will be surveyed, as well as the three major Japanese forms of theatre, Noh, Kabuki, and Bunraku. The wayang puppet theatre of Indonesia will also be studied. Other topics will include the great Sanskrit plays of India, and forms of Indian dance theatre, such as the Kathakali.
VPA281F Women in the Theatre
Telecourse ID: 40722653
The chronicle of theatre history from the perspective of women's experience, not only as practitioners, but also as spectators and subjects of theatre production. Control of the course will be an inquiry into specific contributions made by women in all areas of theatre, but also an examination of the circumstances which led to the exclusion of women from mainstream theatre activity for many centuries, and of the factors which have often served to marginalize the tradition of female theatrical endeavour. Another focal concern of the course will be the impact of feminism on the theatre. Exclusion: (DRA2265)
Prerequisite: VPA293Y
VPA241F History of The Theatre
Telecourse ID: 40722533
The study of the theatre in Europe and North America from the beginning of the 19th century to the 1960's. Major topics will concentrate on the emergence of realism in the theatre, naturalism, and anti-realist trends on stage. Also studied will be Expressionistic theatre, Dadaism, Futurism, Surrealism, Theatre of the Absurd, and other forms of mainstream and avant-garde contemporary theatre. Attention will also be given to "lessor" theatrical forms such as vaudeville, burlesque, and circus. The principal text will be Oscar Brockett's 'History of the Theatre.' Other texts will be announced in course. This course will be taught in lectures and seminars. Exclusion: (DRA220Y), (DRA220S), VPA2383, DRM254Y, DRM256
Prerequisite: VPA281F, VPA293Y
VPA221F The History of The Theatre II: From the Golden Age in Spain to Napoleon
Telecourse ID: 40721133
A survey of staging practices, acting styles, and architectural traditions in the major theatres of Europe. The study of the golden period of theatre in Spain will be followed by an examination of British theatre from 1642 to the end of the 18th century, the theatre in France under Moliere and the great neoclassical dramatics, as well as theatre in Northern and Eastern Europe. Also studied will be the early theatre in North America. The principal text will be Oscar Brockett's 'History of the Theatre.' Other texts will be announced. This course will be taught in lectures and seminars. Exclusion: (DRA230Y), DRM264
Prerequisite: VPA221F
Music
The Music curriculum is designed both for students who intend to pursue a career in the arts and for students whose interests are more general. Students who have taken music at high school or elsewhere will find a selection of historical, theoretical, and practical courses in music, while students with no previous background can begin musical study here. Most upper-level music courses assume the student has some ability in reading music, and all continuing students are encouraged and helped to acquire this skill as soon as possible. Students who need additional preparation are advised to take VPAAS89. All students should consider taking advantage of the various opportunities that exist here for practical music making, particularly the series of Supervised Performance courses.

MAJOR PROGRAMME IN MUSIC

HISTORY
Supervisor: W. Bowen (377-9194)
Students are required to complete a total of seven full-course equivalents in Music made up as follows:
1. VPAAS89 - Introduction to Music
   VPAAS90 - Materials of Music I
   VPAAS91 - Listening to Music
2. One and one-half full-course equivalents from VPAAS09-VPAAS19
3. One full-course equivalent from the C- or D-level

VPAAS89 Introduction to Music
Telephone ID #: 40718053
A study of the basic materials, principles of design, and cultural significance of Western Music from the Middle Ages to the present day.
Through a series of detailed case studies drawn from a variety of periods, students are introduced to the following ideas of musical style and design: the ways in which culture and society influence what composers write; the role of the listener in recreating a musical work; how to approach unknown pieces of music; how to communicate ideas about music to others. This course is designed to prepare students for further studies in music at the university level. It assumes an elementary knowledge of Western art music to the level of VPAAS93. Listening to Music, and VPAAS45, Elementary Music Theory, and forms a natural sequel to them.
Exclusion: (MUSA01), MUSI100
Prerequisite: VPAAS93 and VPAAS45 or their equivalents
Session: Winter Day
J. May
Offered: 1999/2000

VPAAS90 Materials of Music I
Telephone ID #: 40718053
The basic materials of music from the Middle Ages to the present.
A study of elementary harmony and musical forms designed to equip the student with simple analytical and compositional techniques. Aural aspects of the subject, including sight-singing, will be emphasized, providing a secure foundation for the development of the student's compositional "ear," that is, the ability to hear mentally what is written and to write down what the inner ear perceives.
Exclusion: (MUSAB9, MUSB07, MUSB17)
Prerequisite: VPAAS45, Royal Conservatory Gr II (music fundamentals) or equivalent
Session: Winter Day
A. Rigopulos
Offered: 1999/2000

VPAAS93 Listening to Music
Telephone ID #: 40718153
An introduction to the language of music for non-musicians.
Drawing on examples from a variety of musical styles and genres, this course introduces students to the art of intelligent listening. Beginning with a brief summary of basic musical concepts, this course continues with a chronological survey of Western music that stresses the close connections existing between music and society. Throughout the course, the emphasis is on what may be heard in a piece of music and theoretical concepts are kept to a minimum. Nevertheless, students will gain some basic understanding of the variety of ways that composers throughout the ages have gone about the task of creating meaningful structures in sound. No previous musical experience is necessary.
Exclusion: VPAAS90, MUSAS45, MUSAS50
Session: (P) Winter Day, (S) Summer Evening
J. May
Offered: 1999/2000

VPAAS94 Elementary Music Theory
Telephone ID #: 40719433
An introduction to the elements of music theory.
This course introduces the novice to the elements of music theory, including concepts of melody and harmony, pitch and rhythmic notation, and musical form. Practical approaches, with weekly exercises. Composer drills will be available for those who require extra study.
Exclusion: VPAAS40
Session: Winter Day
C. Clark
Offered: 1999/2000

VPAAS95 Music of the World's Peoples
Telephone ID #: 40719950
An introduction to the musical cultures of the world's peoples.
In our multi-cultural world, we are constantly exposed to sounds which do not follow the familiar patterns of musical expression. Accordingly, it is the purpose of this course to help the student to appreciate the music of other cultures and to recognize the variety and richness of musical inventions in the world. Course content will include selected examples from Africa, China, India, Japan, the Middle East, and America. In addition, the student will be introduced to Western Polk music and to the music of the native peoples of North America. Lectures will be devoted to a non-technical discussion of music, musical instruments and the place of music in society. No previous musical experience is required.
Exclusion: (MUSA12), MUSB20
Session: Winter Day
F.R.A.

VPAAS10 Music of the Renaissance
Telephone ID #: 40728133
A study of the music from the early fifteenth century until 1600.
This course concerns the variety of new forms, both sacred and secular, created during the Renaissance period, and the way in which the composers expressed the new spirit of humanism in their compositions.
Exclusion: (MUSB04)
Prerequisite: VPAAS90 (MUSAS61).
It is recommended that students with no background in elementary harmony take VPAAS93 as a co-requisite or pre-requisite.
Session: Winter Day
W. Bowen
Not offered 1999/2000

VPAAS25 Music of the Baroque Era
Telephone ID #: 40728253
A study of the music from the early seventeenth century until the death of Bach.
A brief survey of the various factors which led to the breakdown of the late renaissance style, followed by a study of the "two practices" of Monteverdi, Schutz and their contemporaries and the early development of opera and oratorio, with examples taken from the works of Cavalli, Carissimi, Lully and Purcell. The formation of an idiomic keyboard style by Froberger, Sweelinck and Froberger and the development of the sonata, concerto and sinfonia in the hands of Corelli, Vivaldi and others. The late baroque is represented by the music of Couperin, Bach and Handel, with selected works by these composers studied in detail.
Exclusion: (MUSB05)
Prerequisite: VPAAS90 (MUSAS39).
It is recommended that students with no background in elementary harmony take VPAAS93 as a co-requisite or pre-requisite.
Session: Winter Day
J. May
Not offered 1999/2000

VPAAS40 History of Music
Telephone ID #: 40728133
A study of the music from the Middle Ages until the late Baroque.
The development of music from the period of the Gregorian chant to the Baroque era.
Exclusion: VPAAS90, MUSAS45, MUSAS50, MUSAS61
Session: Winter Day
J. May
Offered: 1999/2000
VA0854F Music of the Romantic Period
Telephone ID #: 40728433
A study of the music of the 19th century. A detailed study of Romantic musical styles as represented by selected works of the major 19th century composers. Included are compositions by Beethoven, Schubert, Mendelssohn, Berlioz, Verdi, Wagner, Brahms, Chopin, Liszt and Wolf. The course will include consideration of the relationship between music and the other arts as an introduction to the sociology of musical criticism.
Exclusion: (MUS306)
Prerequisite: VPA001 (MUS100). It is recommended that students with no background in elementary harmony take VPA005 as a corequisite or prerequisite.
Session: Winter Day
C. Clark
Not offered 1999/2000

VA0850S Materials of Music II
Telephone ID #: 40729003
A continuation of VPA00 (MUS100). A continuation of the study of the materials of music. Analysis of the role of each element in the composition and performance of music.
Prerequisite: VPA001 (MUS100), or Royal Conservatory C-III harmony or equivalent.
Session: Winter Day
A. Rappaport
Offered: 1999/2000

VA0853F Music for the Theatre
Telephone ID #: 40729033
An introduction to how music is combined with other arts in the theatre. Multi-media shows in the theatre are a popular form of entertainment. In a study of representative examples (including films, musics, and opera) this course will focus on the relationship between the individual arts. The selected works will be considered not only for their musical and dramatic qualities, but also in terms of the creative process. In addition, the course will examine the production and performance traditions. Students will study audio-visual records and, where possible, live performances. No previous musical experience is required.
Exclusion: (MUS133)
Session: Winter Day
W. Brown
Offered: 1999/2000

VA0849F Jazz
Telephone ID #: 40729443
A history of jazz from its African and European roots to present day experiments. The history of jazz styles approached through an examination of the work of representative performers. Social questions and the relationship between jazz and "classical" music will be discussed. Class participation may include performance by exceptionally well qualified students. No previous musical experience is required.
Exclusion: (MUS14)
Session: Winter Evening
T.B.A.

VA0805 Opera
Telephone ID #: 40738053
The history of opera from its inception to the present day.
Through detailed study of representative examples from the operatic repertoire and of discussions by contemporary critics, this course focuses on the changing conception of the genre, particularly as it is revealed in the music and libretto.
Exclusion: (MUS306)
Prerequisite: VPA001 (MUS100) and one course from the series VPA080-VPA085.
Session: Winter Day
C. Clark
Not offered 1999/2000

VA0815S The Symphony
Telephone ID #: 40738153
The changing concept of the symphony investigated through close study of representative examples from the 18th century to the present day. Symphonics to be studied will be chosen from among the works of Haydn, Mozart, Beethoven, Berlioz, Brahms, Bruckner, Mahler, Shostakovich, Strausns, Hindemith, Ives and Beito.
Exclusion: (MUS305)
Prerequisite: VPA001 (MUS100) and one course from the series VPA080-VPA085.
Session: Winter Day
A. Rappaport
Not offered 1999/2000

VA0875F Handel
Telephone ID #: 40738733
A study of Handel's compositions in the context of the eighteenth century society and culture.
This course will study representative examples of all the major genres in which Handel composed. Emphasis will be placed, however, on the unique synthesis of genres that is to be found in Handelian oratorio. Among the works to be studied will be Saul and Athaliah. Consideration will be given to the ways in which English oratorio met the needs of a rapidly changing society, and to the effects, both positive and negative, that it had on the transformation of English music in the nineteenth century.
Prerequisite: VPA001 (MUS100) and one course from the series VPA080-VPA085.
Session: Winter Day
J. Myco
Not offered 1999/2000

VA0800F Independent Studies
A directed reading course for students who have demonstrated a high level of academic maturity and competence.
Qualified students will investigate a field of musical scholarship which is of common interest to both student and supervisor and which is not available for study otherwise. Students meet regularly with the supervisor for consultation and prepare a 5,000-7,500 word paper for a term course or a 10,000-15,000 word paper for a year course. Students who have demonstrated exceptional ability in VPA080 and VPA090 may in certain circumstances pursue a course of composition, producing a portfolio of original works in place of the essay.
Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusion: At least two full-course equivalents in music at the B- and C-level; permission of instructor to be obtained by the last date of classes in the previous term.
Exclusions: (MUS201, MUS202, MUS203)
Session: Winter Day
Co-ordinator: H. Brown
Offered: 1999/2000

Performance Courses
The following performance courses are also available to students on a non-credit basis and are open to all faculty and staff members. Registration for all participants is by audition. Credit students should register but will only be given credit if the course meets the minimum graded performance by the instructor during the first week of classes.

VPA01H Concert Choir I
Telephone ID #: 40719143
The practical study of a wide range of music from the choral repertoire.
Students work as members of St. Andrew's College Concert Choir and St. Andrew's College chamber choir which performs compositions chosen from the literature of the Renaissance to the present day. The choir gives public performance in each term.
In addition, students are required to prepare works in conjunction with members of the instrumental performance programme. Previous experience is desirable but not essential.
The course meets one hour per week for rehearsal with VPA091 and VPA091.
Exclusion: (MUS202)
Prerequisite or Corequisite: Any non-performance course in music.
Session: Winter Day
L. Whiting

VPA01H Concert Choir II
Telephone ID #: 40719073
A continuation of VPA01.
Exclusion: (MUS201)
Prerequisite: VPA01 (MUS202)
Session: Winter Day
L. Whiting

VPA98H Concert Choir III
Telephone ID #: 40719143
A continuation of VPA091.
Prerequisite: VPA091 (MUS202)
Session: Winter Day
L. Whiting

VPA02H Concert Band I
Telephone ID #: 40719243
The practical study of ensemble performance.
Students work in an ensemble and prepare works for public performance within the College. The emphasis of the course is on the particular problems of ensemble performance and it assumes a basic competence on the chosen instrument. (NOTE:Flamasters cannot be accommodated in ensembles except in very exceptional circumstances. Flamenos who need a credit in supernatual performance to meet the requirements of the major programme, and who are not admitted to the Concert Choir, should discuss possible alternatives with the programme supervisor.)
Each group will meet for two hours per week (including two hours with VPA092 and VPA092). Exclusion: (MUS202)
Prerequisite or Corequisite: Any non-performance course in music.
Session: Winter Day
J. Reynolds

VPA02H Concert Band II
Telephone ID #: 40729423
A continuation of VPA02.
Exclusion: (MUS201)
Prerequisite: VPA02 (MUS202)
Session: Winter Day
J. Reynolds

VPA02H Concert Band III
Telephone ID #: 40729433
A continuation of VPA02.
Students in this course meet for three hours per week, two hours with students of VPA02 and one hour in a seminar. In this seminar the elements of
Studio

The Studio curriculum is built around the idea that art is a means of expressing and understanding the human condition. It does not include courses in commercial or advertising art. The studio experience is intended to expand the student’s perception not only of what art is, but why and how it is made and to develop the ability to understand and experience the challenges of contemporary art. Critical skills will expand along with practical skills.

**MAJOR PROGRAMME IN STUDIO**

*Supervisor: J. Hoogstraten (287-1713)*

This programme will give the student a full and broad exposure to both the various processes of art-making and to recent developments in art criticism. It provides some preparation for teaching at the high school or elementary level.

An art history course, VPA441, is required. We strongly urge students to take additional art history courses dealing with modern and contemporary art.

Students must complete seven full-course equivalents as follows:

1. VPA44Y Introduction to Art
2. VPA460Y Foundation Studies in Studio
3. VPA461FS But Why Is It Art?
4. VPA7B0FS Drawing I
5. VPA7B5FS Painting I
6. Two and one-half additional full-course equivalents, one of which must be at the D-level, VPA425FS, Computer and the Arts, may be counted as part of this requirement.

*MINOR PROGRAMME IN STUDIO*

*Supervisor: J. Hoogstraten (287-1713)*

Students are required to complete a total of four full-course equivalents in Studio. The four courses will be made up as follows:

1. VPA460Y Foundation Studies in Studio
2. VPA461FS But Why Is It Art?
3. One and one-half full-course equivalents in either drawing, painting or printmaking
4. One further full-course equivalent in the chosen area of study from the C- or D-level.

**NOTE:** VPA460, Foundations Studies in Studio, which covers basic media and concepts through practice and discussion, must be taken with its corequisite, VPA441, before advancing to other studio courses.

Students will be expected to purchase the materials necessary for each course. An estimate of the costs is available from the Programme Supervisor.

**VPA60Y Foundation Studies in Studio**

Telephone ID #: 40719033

An introduction to the various processes of art-making: drawing, painting, sculpture, printmaking, installation work, performance, and video.

This course is intended to prepare the student for further study in Studio. A basic foundation of visual understanding will be built through the personal exploration of a number of processes, concepts, and media.

Students will discover, through assigned work and discussions, the many ways contemporary art is made. They will be required to explore a number of these processes through assignments.

Limited enrolment: 25 per section

*Exclusion: FAS110 (PARA06)*

*Complementary: VPA525 (PARA06)*

*Prerequisite: an OAC in Visual Art or permission of the instructor following a positive evaluation of a portfolio.*

Session: Winter Day

T. Mars / D. Holman

Offered: 1999/2000

**VPA61F** But Why Is It Art?

Telephone ID #: 40716122

An introduction to the basic ideas behind recent art, how they developed, and why they change.

"I don’t know anything about art but I know what I like." Why do we feel uncomfortable when confronted with contemporary art? What are we supposed to be thinking and why? This course aims to develop a broad-based understanding of the critical positions that hold to major changes in recent art.

*Exclusion: (FARA91)*

Session: Winter Day

J. Hoogstraten

Offered: 1999/2000

**VPA830F Computers and the Arts**

Telephone ID #: 40716333

See course description under the Specialist Programme in Visual and Performing Arts.

**VPA849F Women and Visual Art**

Telephone ID #: 40724963

See course description under Art History.
and group level. Students will be required to write four critiques on contemporary art. Limited enrolment: 20
Exclusion: FAS200 (PARR75)
Prerequisite: VPA490 (FARA90)
Session: Winter Day
J. Hoagland
Offered: 1999/2000

VPA877S Performance Art
Telephone ID: # 4077773
An exploration of both the history and practice of performance art. This course will be made up of projects constructed around the concerns of performance art from DADA to contemporary art. Texts will include: Goldberg’s "Performance Art From Futurism to the Present." Enrollment limit: 15
Prerequisite: VPA490 (FARA90) or VPA830 (DRAB01) or permission of the instructor
Session: Winter Day
T. Mars
Offered: 1999/2000

VPA878F Introduction to Lithography
Telephone ID: # 4072783
An introduction to black and white stone lithography including a detailed investigation of materials and techniques. The course will include demonstrations and lectures covering the technical aspects of the medium. Students will be required to pass a test on procedures and explore the medium by drawing, processing and printing several of their own lithographs. Discussions of work will be held regularly on both an individual and group level. Limited enrolment: 25
Exclusion: (PARR82)
Prerequisite: VPA490 (FARA90) or permission of the instructor.
Session: Winter Day
D. Holman

VPA879F Intermediate Lithography
Telephone ID: # 4072829
A continuation of VPA878F, with emphasis on greater control of process and technique. The course explores the technical aspects of working with coloured inks. Students will be expected to work out visual ideas by drawing, processing, and printing a number of their own lithographs. Individual and group critiques will be held to discuss assigned work. Limited enrolment: 10
Exclusion: (PARR83)
Prerequisite: VPA878F (PARR82) and permission of the instructor
Session: Winter Day
D. Holman
Offered: 1999/2000

VPA880F Painting II
Telephone ID: # 4078033
An opportunity for the student to work out a number of personal statements in painting. This course may be taken if the student can show, through the portfolio and proposal, an ability to proceed to the intermediate level. Students will meet with their instructor with a written proposal for the intermediate level and will be held to meet with a minimum of 3 credit hours of instruction per week. Readings will be assigned on concepts pertinent to the students' work. Students will also meet at appointed times to discuss work in progress. Content, method, and evaluation will be planned in co-operation with the instructor. Limited enrolment: 8
Exclusion: FAS331 (PARR75)
Prerequisite: VPA878F (PARR75) and permission of the instructor based on the proposal and portfolio.
Session: Winter Day
D. Holman
Offered: 1999/2000

VPA881F/S Study in Lithography
Telephone ID: # 4072827
An opportunity for the student to create a number of personal statements working in an area of their own choice. Courses may be taken in any area including printmaking, drawing, painting, sculpture, photography or mixed media if the student, through the portfolio and proposal, can show the ability to proceed to the intermediate level. Students will provide their chosen instructor with a written proposal within the first week of class. This will state the intended areas of investigation, the amount of work necessary to fulfill it, and a justifying of the students' position. They will also meet at appointed times to discuss work in progress. Content, method and evaluation will be planned in co-operation with the instructor. Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Limited enrolment: 3
Exclusion: FAS434, 435 (PARR22)
Prerequisite: at least one-half course in printmaking at the C-level
Session: Winter Day
D. Holman
Offered: 1999/2000

VPA885F/S Advanced Studio: Individual Study in Printmaking
Telephone ID: # 4074623
A further opportunity for individual exploration in printmaking. This course is designed for mature students who, through their portfolio and proposal, have shown their ability to work without intensive guidance. Students will provide their chosen instructor with a written proposal within the first week of classes. This will state the intended areas of investigation, the amount of work necessary to fulfill it, and a justifying of the students' position. They will also meet at appointed times to discuss work in progress. Content, method and evaluation will be planned in co-operation with the instructor.
Offered: 1999/2000

VPA886F/S Advanced Studio: Individual Study in Painting
Telephone ID: # 4074623
A further opportunity for individual exploration in printmaking. This course is designed for mature students who, through their portfolio and proposal, have shown their ability to work without intensive guidance. Students will provide their chosen instructor with a written proposal within the first week of classes. This will state the intended areas of investigation, the amount of work necessary to fulfill it, and a justifying of the students' position. They will also meet at appointed times to discuss work in progress. Content, method and evaluation will be planned in co-operation with the instructor.
Offered: 1999/2000

Women's Studies

Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Limited enrolment: 3
Exclusions: FAS340, 434, 435, 436, 437, 438, 439 (PARR42, PARD93)
Prerequisite: at least one-half course in printmaking at the C-level
Session: Winter Day
D. Holman
Offered: 1999/2000

Women's Studies (BA)

Faculty List
C. Bertrand-Jennings, L.Ed. (Paris), Ph.D. (Wayne State), Professor (Fermilab)
R.P. Thompson, M.A., Ph.D. (Toronto), Professor (Philosophy)
L.J. Abrey, M.A. (McMaster), M.Phil., Ph.D. (Oxford), Associate Professor and Chair (History)
J. Doddy, M.A. (Dalhousie), Ph.D. (USC), Associate Professor (Anthropology)
L. Carney, M.A. (Columbia), Associate Professor (Philosophy)
M.C. Cuddy-Kraemer, M.A., Ph.D. (Toronto), Associate Professor (English)
P.C. Haining, B.A. (National Chung-ching University), M.A. (Chinese Cultural University), Ph.D. (California), Associate Professor (Sociology)
F. Jacquett, M.A., Ph.D. (York, Canada), Associate Professor (History)
M.E. Irwin, M.A., Ph.D. (Toronto), Associate Professor (Classics)
D.M. James, M.A. (Cornell), Ph.D. (Michigan), Associate Professor (Psychology)
L. Lang, B.A., M.A. (Masachusetts), Ph.D. (Toronto), Associate Professor (Philosophy)
M. Larsa, M.A., Ph.D. (Toronto), Associate Professor (Anthropology)
The MINOR PROGRAMME IN WOMEN'S STUDIES

The Minor Programme offers a more concentrated course of study designed primarily for students who wish to expand their Women's Studies coursework into a particular area.

Students must select four full-course equivalents as follows:

1. WSTA01Y Introduction to Women's Studies
2. WSTA06YS Current Research on Women's Issues
3. One and one-half full-course equivalents from the list below:
   - WSTB11Y Race, Class and Gender Violence and Safety
   - WSTB112Y Women: Issues of Violence and Safety
   - WSTC13YS Women and the Media
   - WSTC15YS Women and Development
   - WSTD01H Women's Studies: Research and Methods
   - WSTD02H Senior Project in Women's Studies

4. Two and one-half full-course equivalents from lists 1, 2, 3 and 5 in the major.

Programme must include 1 F.A.E. at the C- or D-level, from lists 3, 4 or 5.

WSTA01Y Introduction to Women's Studies

Students preparing for a career in research, teaching, administration, government, law, media or social work are encouraged to consider enrolling in the Major or Minor Programme in Women's Studies; since these careers involve consideration of equity issues, a background in Women's Studies would be a distinct asset.

Supervisor of Major and Minor Programme: D. James (87-1170)

THE MAJOR PROGRAMME IN WOMEN'S STUDIES

The Major Programme, designed to acquaint students with the fundamental body of knowledge and concepts and methodologies used to examine women's issues in the major academic disciplines.

Students must select seven full-course equivalents as follows:

1. WSTA01Y Introduction to Women's Studies
2. WSTB05YS Current Research on Women's Issues
3. One and one-half full-course equivalents from the list below:
   - WSTB11Y Race, Class and Gender Violence and Safety
   - WSTB112Y Women: Issues of Violence and Safety
   - WSTC13YS Women and the Media
   - WSTC15YS Women and Development
   - WSTD01H Women's Studies: Research and Methods
   - WSTD02H Senior Project in Women's Studies
4. Three and one-half full-course equivalents from lists 1, 2, 3 and 5 in the major.

Programme must include 1 F.A.E. at the C- or D-level, from lists 3, 4 or 5.

WSTA01Y Introduction to Women's Studies

Telephone ID: # 3711085
An interdisciplinary course which brings the perspectives of philosophy, psychology, political theory, sociology, anthropology, history, language, literature and the arts to the study of women in modern society - through the lenses of gender, race and class. The goal of this course is to enable students not only to enter into the contemporary feminist debates but to understand the significance of these debates within the disciplines under discussion. Issues to be addressed include: women's diversity; patriarchal foundations; the politics of the family including the dynamics of socialization; women's work in the home and the paid labor force; the transmission and perpetuation of images of women; and contemporary issues including reproductive choices, health, sexual politics and violence against women. Tutorial/practical required. Exclusion: WSTA01Y, WSTA01H, WSTA01M, WSTA01S.
Session: Winter Day
Co-ordinator: C. Guberman

Programmes:

WST005P Current Research on Women's Issues
Telephone ID: # 3712033
An examination of topical and critical research in women's issues from a cross-cultural and interdisciplinary perspective. This course will provide practical and critical analysis of contemporary issues as they affect women globally. Topics will be drawn from a range of disciplines, including history, sociology, education, literature, the arts and sciences.
Exclusion: WSTA01Y, WSTA01H, WSTA01M, WSTA01S.
Session: Winter Day
G. Regal-Rash

WSTA11Y Race, Class and Gender
Telephone ID: # 37121163
An overview of the complex interactions between three socially significant variables: race, class and gender in traditional and modern societies.
Exclusion: WSTA01Y, WSTA01H, WSTA01M, WSTA01S.
Session: Winter Day
C. Regal-Rash

WSTA12S Women and the Media
Telephone ID: # 37121353
An interdisciplinary approach to feminist critiques of the media. Students will be introduced to feminist theories of media, and will be encouraged to examine a variety of media texts and to form their own critical perspectives.
Exclusion: WSTA01Y, WSTA01H, WSTA01M, WSTA01S.
Session: Summer Evening
T.B.A.

WSTA20S Women and Environments
Telephone ID: # 37135303
An interdisciplinary study of feminist perspectives on women's roles in the natural environment; an examination of the ways in which women's lives have been and are shaped by the environments in which they live, and how women act to change those environments.
A range of critical issues related to women's experiences of environments will
be raised through examining such topics as: nature as female, the scientific domination of nature; women's response industrial change; ecosocialism; environmental ethics; global sustainable development; and women's struggles for ecologically and socially safer environments.

Prerequisite: Two F.C.E.'s in WST or permission of the instructor.

Season: Winter Evening
C. Guberman

**WSTD01H - Senior Project in Women's Studies**

Telephone ID #: 31740143

Students will choose a topic of special interest to them from an area in which they have done some concentrated study, and undertake an in-depth investigation of the topic under the supervision of a Women's Studies faculty member.

Arrangements with the course Co-ordinator must be made by the student before the end of the spring pre-registration period. A substantial essay, research project, or major presentation on the approved topic will be given to two evaluators - the course Co-ordinator and supervising faculty member in the appropriate discipline.

Exclusions: (PHSE05H)

Prerequisites: WSTA01Y & WSTD05FIS (formerly WSTD01YS, WSTD01YS or WSTD01YFIS required) & one and one-half F.C.E.'s from the list in #3 of the Major Programme in Women's Studies (or permission of the instructor).

Season: Winter Day
C. Guberman

**WSTD02H - Women's Studies: Research and Methods**

Telephone ID #: 31740247

Students will design, develop and conduct a qualitative research project about women from an interdisciplinary perspective.

The course will provide an overview of the various phases of conducting research; planning the research project, choosing appropriate methods for data collection, analyzing the data and reporting the results. There will be regular consultation with the faculty supervisor.

Prerequisites: WSTA02Y & WSTD05FIS & one and one-half F.C.E.'s from the list in #3 of the Major Programme in Women's Studies (or permission of the instructor).

Season: Winter Day
C. Guberman

---

**Admissions, Awards and Academic Regulations**

**Table of Contents**

| Admissions | 203 |
| Admission Requirements | 203 |
|Admission with Transfer Credits | 204 |
| Application Deadlines | 206 |
| Application Procedures | 206 |
| English Facility Requirement | 204 |
| Mature Students | 205 |
| Secondary School Prerequisites | 207 |
| Special Students | 205 |
| Visiting Students | 206 |

**Awards**

- Admission Awards | 210
- Bursaries / Need-Based Awards | 216
- Graduating with Distinction / High Distinction | 218
- Graduation Prizes | 217
- In-Course Awards | 211
- Honours List | 218

**Academic Regulations**

- Academic Offences | 247
- Academic Transcripts | 247
- Access to Student Records | 232
- Code of Behaviour, Academic Matters | 247
- Code of Student Conduct | 252
- Course Changes | 226
- Corequisites | 223
- Exclusions | 223
- Extra | 227
- On Other Campuses | 228
- Prerequisites | 223
- Selection | 223
- Standing | 227
- Course Key | 222
- Degree Requirements | 12
- Examination | 243
- Final | 238
- Graduation Practices Policy | 255
- International Student Exchange | 230
- Letters of Permission | 206
- Non-Academic Offences | 252
- Overall Limits | 228
- Overall Standing | 227
- Petitions Procedures | 241
- Policy on Access to Student Records | 232
- Probation | 228
- Programme Requirements | 14
Admissions

Re-enrolling University of Toronto at Scarborough Students

Students previously registered at University of Toronto at Scarborough who wish to return to Scarborough after an absence of two or more consecutive sessions must submit an application to re-enroll at the Office of the Registrar (Admissions and Liaison), Room S303F well in advance of the session requested. Students who have a degree conferred normally continue as Special Students. Students who wish to start a second degree must apply to the Assistant Registrar Admissions by April 1. For further information on re-enrollment, telephone (416) 287-7529. See also the section on Overall Standing.

Admissions

The following is a brief description of admission policies and procedures. Full information may be obtained from:

Admissions and Awards
University of Toronto
315 Bloor Street West
Toronto, Ontario, Canada M5S 1A3
Telephone: (416) 978-2190
e-mail: ask@utm.utoronto.ca

Admissions and Liaison
UCIT at Scarborough
1205 Military Trail
Scarborough, Ontario, Canada M1C 1A4
Telephone: (416) 287-7539
e-mail: askliaison@scar.utoronto.ca

Secondary School Liaison/Campus Tours - Telephone: (416) 287-7563
e-mail: liaison-office@scar.utoronto.ca

Web site: http://www.scar.utoronto.ca

General Admission Requirements to University of Toronto at Scarborough for 1998-99

Applicants from Ontario Secondary Schools
- Applicants must be eligible to receive the Ontario Secondary School Diploma (OSSD).
- Applicants must present at least six (6) Ontario Academic Courses (OACs).
- One credit must be OAC English 1 / English 2.
- Applicants must present credits to satisfy any prerequisites of specific courses or specific programs in which they intend to enrol.
Admissions By Equivalent Certificate
The certificate listed below are considered acceptable for admission consideration.

Applicants From Other Canadian Provinces and Territories.
Saskatchewan - Grade 13
Quebec - 12 academic C.E.D.E.P courses.
Note: Those who completed their high school studies in Canada in 1985 or earlier should contact Admissions and Awards before applying to check entrance requirements.

Admission with Transfer Credit
Students who have completed work at other universities or at other faculties or Schools of this University may be considered for admission with advanced standing credit. Acceptance of transfer credits among Ontario universities shall be based on the recognition that, while learning experiences may differ in a variety of ways, their substance may be essentially equivalent in terms of their content and rigor. Insofar as possible, acceptance of transfer credit should allow for maximum recognition of previous learning experience in university-level courses.

Subject to degree, grade and program requirements, any course offered for credit by one university shall be accepted for credit by another university when there is virtual equivalency in course content. Applicants may request the pamphlet "Information for Transfer Students" from Admissions and Awards. This pamphlet describes how we assess transfer credits as well as the limits on the number of credits that will be considered for transfer.

Telephone (416) 978-2190.

Note that students transferring to the University of Toronto at Scarborough will be required to complete at least half of their degree credits and half of their program requirements as University of Toronto at Scarborough students. (Students transferring from other divisions of the University of Toronto are exempt from this degree requirement. Limits on transfer credit upon admission still apply.) Students for whom the University has received official documentation that all previous qualifications have been achieved should contact the Admissions & Awards Office to determine whether the requirements have been met.

Admissions of Undergraduate Students
Applicants who wish to apply for admission on the basis of work completed in other countries or on the basis of other qualifications should write to Admissions and Awards, outlining the nature of their qualifications and intended area of study. Information on admission requirements for applicants from overseas is contained in the Undergraduate Admission Bulletin available from Admissions and Awards.

Admission of Pre-university Students
Applicants who do not hold the published admission requirements may be considered for admission if:
1. they are at least 21 years of age by July 15 of the summer session or by October 1 of the winter session, and
2. they have been residents of Ontario as a Canadian citizen or permanent resident of Canada for a minimum of twelve months by the above dates, and
3. achieve high standing in one pre-university course, or
4. achieve high standing in two OACs completed after the student is 21 years old. One OAC must be English OAC 1.

Students must receive permission from Admissions and Awards to qualify for consideration using these options. Therefore, consult before enrolling in any of these courses. Students who wish to prepare for certain university programs such as science programs may have to do additional studies to ensure all of the prerequisites will be attained.

Note: As an applicant who enrols in a Pre-university course as a refugee claimant must be officially recognized as a Convention Refugee or Permanent Resident at the time of admittance to the faculty.

Pre-university courses are offered by the Woodsworth College of the University of Toronto. For information about the pre-university courses, contact Woodsworth College at (416) 978-2415.

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 a part-time Special student. Normal admission requirements are usually waived. Tuition fees will be charged but limited bursary assistance is available. Call the Assistant Registrar - Admissions at (416) 287-7259 for information.

Special Students
Special Students are those registered at the University of Toronto at Scarborough but not proceeding towards a degree. Most Special Students have completed degree studies and are taking further courses for their own purposes.

Admissions
Special Students on a Letter Of Permission (Visiting Students)

Students with valid Letters of Permission from other accredited North American universities may register directly at U of T at Scarborough, taking courses for transfer credit at their own home university. Visiting Student status does NOT imply acceptance as either a student proceeding towards a degree or a Special Student. Call (416) 287-7529 for applications.

Application Procedures

Students currently enrolled in an Ontario secondary school should submit applications through their school’s guidance office. All other applicants should request an application from Admissions and Awards, giving full details of their educational background and standing.

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 programme selected and supplementary information obtained through the co-operative application forms for applicants to co-operative programmes.

Applications will be considered from candidates whose qualifications do not meet the normal requirements, but such candidates must offer written evidence of exceptional ability, or of extenuating circumstances. Applicants who matriculated prior to the current year are advised to telephone or write to Admissions and Awards for information. Possession of minimum requirements does not guarantee acceptance. Because of limitation of space, preference will be given to applicants with the best qualifications. The University of Toronto reserves the right to determine whether or not credentials of degree-granting institutions in Ontario meet the standards for admission to University of Toronto programmes.

Application Deadlines

Applicants are strongly advised to submit application forms well in advance of the following deadlines:

- **Admission to the 1996 Summer Session:**
  Term I (beginning in May) - March 15
  Term II (beginning in July) - May 15
  (Note: Visiting Students applying from other universities may be considered after these dates. Telephone (416) 287-7529 to inquire.)

- **Admission to the 1996 Winter Session:**
  (beginning in September)
  Full-time study - April 1
  Part-time study - June 1

Notes

- Applications will not be accepted for entry in the January term.
- Out-of-Canada applicants should apply at least six weeks before these dates.
- Applicants to the Co-operative Programmes should apply early, by March 1, to allow sufficient time to receive, complete, and return the special Co-op Programmes application form by April 15.

<table>
<thead>
<tr>
<th>Scarborough course</th>
<th>OAC Prerequisite(s)</th>
<th>Recommended course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry A02Y</td>
<td>Chemistry and Calculus</td>
<td></td>
</tr>
<tr>
<td>Computer Science A57H</td>
<td>Calculus, and one of Algebra &amp; Geometry or Finite Mathematics</td>
<td></td>
</tr>
<tr>
<td>Computer Science A58H</td>
<td>Algebra &amp; Geometry and Calculus</td>
<td></td>
</tr>
<tr>
<td>French A10Y</td>
<td>French</td>
<td></td>
</tr>
<tr>
<td>Environmental Science A06H</td>
<td>Mathematics and Science counts</td>
<td></td>
</tr>
<tr>
<td>Mathematics A23H</td>
<td>Algebra &amp; Geometry and Calculus</td>
<td></td>
</tr>
<tr>
<td>Mathematics A26Y, or Mathematics A28Y, or Mathematics A29Y</td>
<td>Calculus, and one of Algebra &amp; Geometry or Finite Mathematics</td>
<td></td>
</tr>
<tr>
<td>Physics A10H</td>
<td>Calculus, and one of Algebra &amp; Geometry or Finite Mathematics</td>
<td></td>
</tr>
<tr>
<td>Physics A20H</td>
<td>Calculus, Physics, and one of Algebra &amp; Geometry or Finite Mathematics</td>
<td></td>
</tr>
<tr>
<td>Physics A31H</td>
<td>Calculus, and one of Algebra &amp; Geometry or Finite Mathematics</td>
<td></td>
</tr>
<tr>
<td>Visual Art A60Y</td>
<td>Visual Art</td>
<td></td>
</tr>
</tbody>
</table>

Secondary School Prerequisites

The courses below have OAC prerequisites. Students may begin the study of many languages without OAC preparation. Students who already have language skills should contact the Supervisor of Studies about courses appropriate to their level of competence. Note that some programmes have implicit OAC requirements. For example, several of the Specialist Programmes in Management and Economics require MATA28Y or MATA26Y which in turn requires the OACs in mathematics listed below. See also the chart that follows on prerequisites by programme.

Applicants with qualifications outside Ontario must present "equivalent" prerequisites. For example, in place of OAC Calculus, applicants must have completed, or must take, a full credit secondary school course (or equivalent) in calculus which covers the geometric notion of a limit, the differentiation and integration of elementary functions to provide them with a geometric grasp of differentiation and integration. Consult with the Supervisor of Studies for Mathematics.
## General/Academic Requirements

**Legend:** Cat: Chemistry; Alg/Geo: Algebra and Geometry; Phy: Physics; Bio/Env: Biology; Econ: Economics; Psy: Psychology; Spec: Specialized; Maj: Major; Min: Minor

<table>
<thead>
<tr>
<th>Programme</th>
<th>Required OACs</th>
<th>Recommended OACs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Co-operative Programmes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actuarial Science (Co-op, Spec)</td>
<td>Cat or Alg/Geo or Phy</td>
<td>Any, Alg/Geo, Phy</td>
</tr>
<tr>
<td>Computer Science and Engineering (Co-op, Spec)</td>
<td>Cat or Alg/Geo or Phy</td>
<td>Any, Alg/Geo, Phy</td>
</tr>
<tr>
<td>Management (Co-op, Spec, B.A)</td>
<td>Cat or Alg/Geo or Phy</td>
<td>Any, Alg/Geo, Phy</td>
</tr>
<tr>
<td>Management and Economics (Co-op, Spec, Min)</td>
<td>Cat or Alg/Geo or Phy</td>
<td>Any, Alg/Geo, Phy</td>
</tr>
<tr>
<td><strong>Arts/Humanities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>French Education (1 Teacher in Spec)</td>
<td>French (or equivalent)</td>
<td>Any, French (or equivalent)</td>
</tr>
<tr>
<td>French (Maj, Min)</td>
<td>French (or equivalent)</td>
<td>Any, French (or equivalent)</td>
</tr>
<tr>
<td>English (Maj, Min)</td>
<td>English (or equivalent)</td>
<td>Any, Language other than English</td>
</tr>
<tr>
<td>History (Maj, Min)</td>
<td>English (or equivalent)</td>
<td>Any, Visual and Performing Arts with Studio option</td>
</tr>
<tr>
<td>Visual and Performing Arts (with Studio option)</td>
<td>Visual and Performing Arts (or equivalent)</td>
<td>Any, Visual and Performing Arts (or equivalent)</td>
</tr>
</tbody>
</table>

Note: Most of the Information Technology programs do not require specific OAC prerequisites. However, courses which develop writing and analytical skills are recommended.

<table>
<thead>
<tr>
<th>Programme</th>
<th>Required OACs</th>
<th>Recommended OACs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Management and Economics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics (Spec)</td>
<td>Cat or Alg/Geo or Phy</td>
<td>Any, Alg/Geo or Phy</td>
</tr>
<tr>
<td>Economics (Maj, Min)</td>
<td>Cat or Alg/Geo</td>
<td>Any, Alg/Geo</td>
</tr>
<tr>
<td>Economics and Political Science (Spec)</td>
<td>Cat or Alg/Geo</td>
<td>Any, Alg/Geo</td>
</tr>
<tr>
<td>Management and Economics (Spec)</td>
<td>Cat or Alg/Geo or Phy</td>
<td>Any, Alg/Geo or Phy</td>
</tr>
<tr>
<td>Management and Economics (Minor Spec)</td>
<td>Cat or Alg/Geo or Phy</td>
<td>Any, Alg/Geo or Phy</td>
</tr>
<tr>
<td>Management and Language-French (Spec)</td>
<td>French (or equivalent)</td>
<td>Cat or Alg/Geo or Phy</td>
</tr>
<tr>
<td>Management and Language-French (Maj, Min)</td>
<td>French (or equivalent)</td>
<td>Cat or Alg/Geo or Phy</td>
</tr>
</tbody>
</table>

*One unit OAC is required for "elective" programme admission consideration. Applicants without an OAC math may be considered for general students to enter their program leading to the B. Com. degree.

<table>
<thead>
<tr>
<th>Programme</th>
<th>Required OACs</th>
<th>Recommended OACs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Sciences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthropology</td>
<td>Social, Geography</td>
<td>Any, Geography, Language studies</td>
</tr>
<tr>
<td>Anthropology with Physical/Anthropological focus (Spec, Maj, Min)</td>
<td>Any, Anthropology, Physical/Anthropological focus</td>
<td></td>
</tr>
</tbody>
</table>

## Science Programmes

<table>
<thead>
<tr>
<th>Programme</th>
<th>Required OACs</th>
<th>Recommended OACs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Science enrichment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociology and Environment</td>
<td>Geography</td>
<td>Any, Geography</td>
</tr>
<tr>
<td><strong>Secondary Development (Spec)</strong></td>
<td>Cat</td>
<td>Any, Cat</td>
</tr>
<tr>
<td><strong>Secondary Development (Maj)</strong></td>
<td>Cat</td>
<td>Any, Cat</td>
</tr>
</tbody>
</table>

Note: Some of the social science programmes require specific OAC prerequisites. However, courses which develop writing and analytical skills are recommended.

<table>
<thead>
<tr>
<th>Programme</th>
<th>Required OACs</th>
<th>Recommended OACs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Life Sciences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Sciences (Spec)</td>
<td>Cat, Alg/Geo or Phy, Chem</td>
<td>Any, Phy, Alg/Geo</td>
</tr>
<tr>
<td>Biological Sciences (Maj)</td>
<td>Cat, Chem</td>
<td>Any, Chem</td>
</tr>
<tr>
<td>Biological Sciences (Min)</td>
<td>Cat</td>
<td>Any, Cat</td>
</tr>
<tr>
<td>Cell and Molecular Biology (Spec)</td>
<td>Cat, Alg/Geo or Phy, Chem</td>
<td>Any, Phy, Alg/Geo</td>
</tr>
<tr>
<td>Cognitive Science (Spec)</td>
<td>Cat, Alg/Geo or Phy, Chem</td>
<td>Any, Phy, Alg/Geo</td>
</tr>
<tr>
<td>Psychological Science with advanced computer science course (Spec)</td>
<td>Cat, Alg/Geo</td>
<td>Any, Alg/Geo</td>
</tr>
<tr>
<td>Psychological Science with advanced computer science course (Maj)</td>
<td>Cat, Alg/Geo</td>
<td>Any, Alg/Geo</td>
</tr>
<tr>
<td>Psychology (Spec)</td>
<td>Cat, Chem</td>
<td>Any, Chem</td>
</tr>
<tr>
<td>Psychology (Maj, Min)</td>
<td>Cat, Chem</td>
<td>Any, Chem</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programme</th>
<th>Required OACs</th>
<th>Recommended OACs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Sciences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Chemistry (Spec)</td>
<td>Cat, Alg/Geo or Phy, Chem</td>
<td>Any, Alg/Geo, Phy</td>
</tr>
<tr>
<td>Chemistry (Spec)</td>
<td>Cat, Chem</td>
<td>Any, Chemistry</td>
</tr>
<tr>
<td>Computer Science (Spec), all streams</td>
<td>Cat, Alg/Geo ( Phy required only for John P. R. Stroud STREAM)</td>
<td>Any, Alg/Geo</td>
</tr>
<tr>
<td>Environmental Science (Spec), all streams</td>
<td>Cat, Alg/Geo, Phy, Chem</td>
<td>Any, Alg/Geo, Phy</td>
</tr>
<tr>
<td>Environmental Science (Maj)</td>
<td>Cat, Alg/Geo, Phy</td>
<td>Any, Alg/Geo</td>
</tr>
<tr>
<td>Mathematics (Spec), Mathematical Sciences (Spec)</td>
<td>Cat, Alg/Geo</td>
<td>Any, Alg/Geo</td>
</tr>
<tr>
<td>Mathematics and Statistics (Spec)</td>
<td>Cat, Alg/Geo</td>
<td>Any, Alg/Geo</td>
</tr>
<tr>
<td>Physical &amp; Mathematical Sciences (Spec, Phy)</td>
<td>Cat, Alg/Geo, Phy</td>
<td>Any, Alg/Geo, Phy</td>
</tr>
<tr>
<td>Physical &amp; Mathematical Sciences (Maj)</td>
<td>Cat, Alg/Geo, Phy</td>
<td>Any, Alg/Geo, Phy</td>
</tr>
<tr>
<td>Physical Sciences (Spec)</td>
<td>Cat, Alg/Geo, Phy</td>
<td>Any, Alg/Geo, Phy</td>
</tr>
</tbody>
</table>

*All OACs are required for "elective" programme admission consideration. Applicants without an OAC math may be considered for general students to enter their program leading to the B. Com. degree.*
Awards

Unless specified, the following awards do not require an application; all UofT at Scarborough undergraduate degree students with excellent academic standing are considered. Where deadlines are not specified, check with staff in the Office of the Registrar - Admissions and Liaison in Room S309P and check the "Scholarships" bulletin board in the Meeting Place. The official award records are on file in Room S309P. UofT at Scarborough students are also eligible for consideration for other general University of Toronto scholarships and bursaries in addition to the awards listed below. Students should check the "Awards" binder in the Resource Centre, Room S302.

Awards Inquiries (416) 287-7529.

A general condition for holding an entrance or in-course award is that the student must register at the University of Toronto at Scarborough in the following academic year with degree status. Students who have been awarded a scholarship which is based on entrance in a particular programme of study must continue in that programme to receive the award. UofT at Scarborough may 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)

Qualify for consideration for awards listed below which are described as OSOTF awards. Students must qualify for consideration for the Ontario Student Assistance Programme (OSAP).

Admission awards

A substantial number of admission scholarships are awarded each year on the basis of excellent academic standing. Successful applicants will be notified at the time they receive an offer of admission to the University.

The National Scholarship Programme

The three-year National Scholarships of Toronto Scholarships will be awarded to students who demonstrate superior academic performance, original and creative thought, and exceptional achievement in a broad context. The National Scholars will be those who not only excel in academic pursuits but also have an enthusiasm for intellectual exploration and an involvement in the life of their school and community. Each secondary school is invited to nominate, on the basis of these criteria, one graduating student to receive a University of Toronto National Bank Award. The winners of the Book Awards, and only these students, may enter the National Scholarship Competition. Information and applications are sent to secondary schools each fall. Applications will not be sent to individual students since nomination by the school is required.

At least fifteen and up to twenty of the finalists will be identified as University of Toronto National Scholars. The National Scholarship will range in value from $7,500 to $15,000 each year for four years of undergraduate study. The annual value of each student’s scholarship will be determined on the basis of his or her financial circumstances.

University of Toronto Scholars Programme

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. There are about 320 scholarships at each level. These in-course awards are worth $1,500 and are tenable with other in-course scholarships.

Plumptre Admission Scholarship

Awarded to the student entering first year whose achievement in secondary school is considered to be the most outstanding. The scholarship is awarded in memory of Professor A. F. Wynn Plumptre, a former principal of University of Toronto at Scarborough. (97-98 value $3,000)

Frederick A. Urquhart Admission Scholarship

Eight scholarships (97-98 value $2,500) are awarded to students entering first year on the basis of exceptional academic achievement in secondary school. The scholarships are awarded in honor of Professor Emeritus F. A. Urquhart, a distinguished entomologist.

University of Toronto at Scarborough Admission Scholarships

Approximately one hundred scholarships are awarded to students on the basis of excellent academic achievement. (97-98 Value: Most are $1,500)

University of Toronto at Scarborough Alumni Admission Awards

Awarded to students applying directly from secondary school who have demonstrated significant contribution to community service work and who have high academic achievement. Application required. Applications will be mailed to high schools or telephone (416) 287-7526. (Value: 3 awards at tuition.) Deadline: April 30

City of Scarborough Scholarships

See Need-Based Scholarships section below.

John Bell Alumni Entrance Scholarship

Awarded to a student entering first year on the basis of academic excellence in the secondary school programme. (Value: $2,000)

Warne-Lambert Admission Scholarship

Awarded to a student entering first year on the basis of academic excellence in the secondary school programme. (Value: $1,000)

Ting Sun Tang Memorial Entrance Scholarship

Awarded to a student on the basis of excellent academic achievement in the secondary school programme. (Value: $750)

Donated by the Federation of Chinese Canadian Professionals (Ontario Education Foundation).

In-course awards

University of Toronto Scholars Programme

In-Course Scholarships

Awards under the University of Toronto Scholars Programme are not renewable. Outstanding students, however, will be...
Norman P. Brown Memorial Award in Humanities
Awarded to a student enrolled in the second or third year of a program in the arts or humanities, and who has demonstrated outstanding academic achievement.

The Hudson’s Bay Company Scholarship
Awarded to a student enrolled in the second or third year of a program in the humanities, and who has demonstrated outstanding academic achievement.

Ghielmetti Prize in Science
1. First prize will be awarded to a student entering the fourth year of the Specialist Programme in Cell and Molecular Biology.
2. Second prize will be awarded to a student entering the fourth year of a Specialist Programme in Computer Science, including Computer and Business Sciences.
3. Third prize will be awarded to a student entering the fourth year of a Specialist Programme in Biological Sciences, including Biochemistry and Genetics.

The Morris Kreger History Prize
Awarded to a student entering the third year of the Major or Specialist Programme in History, and who has demonstrated outstanding academic achievement.

The University of Toronto Alumni Association Luisa Dove Memorial Award
Awarded to a student enrolled in the fourth year of a Specialist Programme in Social Science, and who has demonstrated outstanding academic achievement.

Bladen Prize in Economics
Awarded to a student enrolled in the fourth year of an Economics program, and who has demonstrated outstanding academic achievement.

Tom McPeek Prize in Archaeology
Awarded to a student enrolled in the third year of a program in Archaeology, and who has demonstrated outstanding academic achievement.

John Pounder Prize in Astronomy
Awarded to a student enrolled in the third year of a program in Astronomy, and who has demonstrated outstanding academic achievement.

John S. Muir Prize in Canadian History
Awarded to a student enrolled in the third year of a program in Canadian History, and who has demonstrated outstanding academic achievement.

William Boardman Memorial Prize in History
Awarded to a student entering the third year of the Major or Specialist Programme in History, and who has demonstrated outstanding academic achievement.

Diezinhaj Essay Prize
Awarded to a student enrolled in the first or second year of a program in English, and who has demonstrated outstanding academic achievement.

The Katharine Nagel Philosophy Prize
Awarded to a student enrolled in the third year of a program in Philosophy, and who has demonstrated outstanding academic achievement.

Marjorie Rae Browne Scholarship in Drama
Awarded to a student enrolled in a program in Drama, and who has demonstrated outstanding academic achievement.

Apply early for the best opportunity.
Arthur Louden Scholarship
Awards in one or more students enrolled in the Early Teacher Project (open to students enrolled in Physical Sciences Scarborough programs) on the basis of academic achievement (minimum 3.2 gpa).

University of Toronto at Scarborough

Phyics and Astronomy Prize
(This award is currently under review.)

Toronto Kaltuer Leo Club Prize in Physical Sciences
Awarded to a student enrolled in the Division of Physical Sciences: Early Teacher Project on the basis of excellent academic achievement and contribution to the programme through leadership activities and success in the teaching practicum.

Toronto Kaltuer Lions Club Prize in Environmental Chemistry
Awarded to a student entering the fourth year of the Specialist Programme in Environmental Chemistry who has demonstrated excellent academic achievement, especially in the laboratory component of the course, and has shown evidence of a commitment to a career in Environmental Chemistry.

The William D. Pech Award in Biology
Awarded to a full-time student entering the second year of any programme in the biological sciences on the basis of excellent academic achievement in B0102Y Introductory Biology (minimum 3.3 gpa B+). Emphasis will be placed on achievement in the third year.

The Prudential Insurance Company of America, Canadian Operations, Scholarships
The Prudential 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. Application Required. Deadline April 30

The Prudential Ability Award
Awarded to an undergraduate student entering second, third or fourth year who has special educational needs due to a physical or learning disability who (i) has demonstrated outstanding leadership qualities in his/her school or community, (ii) is a Canadian Citizen or Permanent Resident, (iii) has a good academic record (minimum B average/3.0 GPA) and (iv) demonstrates financial need. Preference is normally given to full-time students. However, students who are not enrolled in a full-time course load may explain the reasons for carrying a part-time course load. (OSOTF*) Application Required. Deadline April 30

The Prudential Management and Economics Award
Awarded to full-time undergraduate student entering second, third or fourth year in a programme in the Division of Management and Economics 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*) Application Required. Deadline April 30

City of Scarborough Scholarships
See Financial Need section below.

Brian David Radford Memorial Scholarship
Awarded to one or more students entering the third or fourth year in the Co-operative Programme whose academic and athletic achievement, combined, best exhibits dedication to excellence. (Minimum grade point average 3.0) Application required. Deadline September 30

Management Accounting Student of Merit Scholarship
Awarded to the student who has completed the third year of study in the Specialist Programme in Management and Economics, and who has completed the following courses with the highest average grade: MGTB30H, MGTC6H, MGTC09H, MGTC15H. Application Required. Donated by The Society of Management Accountants of Ontario

Keith and Annelle Ellis Award in Management and Economics
Awarded to a student entering third year in a degree programme in the Division of Management and Economics on the basis of financial need. Preference will be given to a candidate who has shown a marked improvement in academic standing from year one to year two. (OSOTF*) Application required, or recipients must have been identified as having financial need based on the University’s criteria.

The Harvey Baskin Award in Financial Accounting
Awarded to a student completing the third year of the Specialist Programme in Management and Economics with the highest grade (at least A minus) in MGTC09Y. Donated by KPMG

Mr. Sub Award in Management
Awarded to an undergraduate student enrolled in a management programme on the basis of excellent academic achievement. Donated by Mr. Submarine Limited

Warner-Lambert Arts Management Scholarships
One scholarship will be awarded to a student enrolled in the Co-operative Programme in Arts Management who has demonstrated outstanding academic achievement. One scholarship will be awarded to a student enrolled in the Co-operative Programme in Arts Management who has demonstrated outstanding academic achievement on the work placement.

Arts Management Scholarship
Awarded to students enrolled in the Co-operative Programme in Arts Management who are in good standing in the co-op programme, who are eligible for placement. Financial need must be considered. (OSOTF*) Application required, or recipients must have been identified as having financial need based on the University’s criteria.

SKF Canada Limited Scholarship
Awarded to a student enrolled in the Co-operative Programme in International Development Studies who is starting the work placement. Financial need must be considered. Financial need must be considered. (OSOTF*) Application required, or recipients must have been identified as having financial need based on the University’s criteria.
Students from other Canadian provinces should apply through their provincial financial aid program. Admissions and Awards can provide addresses, and in many cases, application forms.

University of Toronto Work-Study Program
This program is funded by the University and the Ministry of Education and Training, and provides on-campus, part-time employment to students with financial need. Information and applications are available from Admissions and Awards or from the Resource Centre at Scarborough, Room S302.

Bursary for Students with Disabilities
Non-repayable assistance of up to $5000 is available from the federal and provincial governments for OSAP recipients who have special educational expenses as a result of a disability. Information and applications are available from Admissions and Awards.

Ontario Student Opportunity Trust Fund Awards (OSTFA*)
To qualify for consideration for awards listed above, which are described as OSOTF awards, students must qualify for consideration for the Ontario Student Assistance Programme (OSAP).

Graduation prizes
Graduation Prizes in Humanities, Life Sciences, Management & Economics, Physical Sciences and Social Sciences
Awards to the outstanding member of the graduating class in each of these categories of scholarship.

All Tseayb Prize in Geography
Awards to the outstanding student graduating in Geography in a Major or Specialist programme.

The Irwin Publishing Prize in Classical Studies
Awards to the outstanding member of the graduating class who has completed the Major Programme in Classical Studies.

Form Prits in Psychology
Awards to the outstanding member of the graduating class who has completed the Specialist Programme in Psychology.
CQA Ontario Award for Excellence
Awarded to an outstanding graduating student completing a Management programme who has displayed excellent achievement in accounting an average of at least 8 plus in MAT334H, MAT336H and MAT333Y. Preference will be given to students who intend to enrol in the CQA programme. A declaration is required.

Robert James Prize in Sociology
Awarded to the outstanding student graduating in Sociology in a Major or Specialist programme.

Novaris Award in Neurosciences
Awarded to a student graduating with a four-year degree who has completed either the Neurosciences Specialist or Major Programme, who, in the judgment of the Faculty, has demonstrated the most outstanding academic and laboratory performance. (This award is currently under review.)

The Society of Chemical Industry Student of Merit Award
Awarded to a member of the graduating class who has completed a Specialist programme in chemistry and achieved the highest standing in the final year. (Minimum GPA of 3.075% has completed the degree within the normal number of years)

Orpheus Prize in Humanities
Awarded to an outstanding member of the graduating class who has completed either the College Programme in the Humanities, the Major Programme in Music History and Literature, or the Specialist Programme in the Arts.

Graduation Prize in Political Science
Awarded to an outstanding member of the graduating class who has completed a programme in political science.

Graduation Prize in Linguistics
Awarded to the outstanding student graduating in Linguistics in the Major or Specialist Programme.

Digital Equipment of Canada Limited Award of Merit
Awarded to the most outstanding student graduating in Computer Science in the University.

John H. Bose Scholarship
Exceptional all-round students graduating in the spring who intend to enter a graduate or second undergraduate degree programme should request an application for this prestigious scholarship from the University of Toronto Alumni Association in the fall. The deadline is normally in early December.

Gordon Cressy Student Leadership Award
To qualify for consideration, students must be in their final year, be in good academic standing and must have made a substantial contribution to their college, faculty or the University as a whole. The award, established by the University of Toronto Alumni Association, requires a nomination by the college. The nomination deadline is normally in January.

University of Toronto at Scarborough Honours List
University of Toronto at Scarborough publishes annually an honours list, including the names of all degree students who have achieved a grade point average of 3.70 or better in their most recent year of full-time study or equivalent amount of part-time study. Students are considered for the honours list at the end of the session in which they complete their 5th, 10th, 15th and 20th credit. Other students may be nominated by the academic divisions.

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

Part-time Studies
All students, whether part-time or full-time, are subject to the same admission standards, are governed by the same rules and regulations, and are required to satisfy the same degree requirements.

It is true, however, that students whose outside commitments prevent them from coming to the Campus during the day may find that they have less access to services in the University and to the informal student network. Part-time students should try to make the time to develop contact with their fellow students and with faculty members, since this is an integral part of the University experience. When problems arise, evening students are encouraged to meet with an academic counsellor (telephone 416-287-7520). In addition, the Association of Part-time Undergraduate Students (APUS) serves as the voice of part-time students in the University and can be a source of help.

Admission to University of Toronto at Scarborough
The same admission standards are applied to both full-time and part-time students. More information on admission for mature students and application deadlines is in the Admissions section of this Calendar. Any questions or concerns can be addressed by contacting the Assistant Registrar - Admissions at (416) 287-7529.

Awards
Part-time students are considered for most awards and scholarships on the same basis as full-time students. Some special awards and bursaries for part-time students are available through APUS. For further information see the Awards section of this Calendar.

Academic Regulations and Degree Requirements
Part-time students are governed by the same regulations as any other student. Students are responsible for reading through the sections of the Calendar dealing with Academic Regulations and Degree Requirements. When in doubt, students should contact the Office of the Registrar or an academic counsellor for assistance in interpreting regulations and their application in particular cases. Several regulations of particular relevance to part-time students are noted below. However, this list is by no means exhaustive. The fact that a particular rule is not quoted below in no way suggests that it will not apply.
Part-time Studies

1. Part-time students may find that degree or programme requirements change during their academic career. When changes occur, students are, whenever possible, allowed, sometimes for a limited period of time, to continue under the old rules. This does not usually apply to rules other than degree or programme requirements.

2. Although the University of Toronto at Scarborough attempts to make available to part-time students as many evening courses as possible, students may occasionally find that it is to their benefit to take courses on other campuses of the University. Students, of course, may not receive credit twice for courses that are deemed to be exclusions.

3. Part-time students are governed by the same regulations concerning the dropping of courses as all other students.

4. Students should be aware that special circumstances may occur and that on occasion this may justify the exception to the academic regulations. Requests for special treatment are made by petition to the Sub-committee on Standing. Students who believe that such special consideration is necessary may wish to meet with an academic counsellor to discuss the appropriate form of action. Students should be aware that this may not be granted and should avoid taking any action that will harm them if the petition is denied.

Choosing a Programme

Since most students must complete their programme and since course offerings are limited, evening students should plan their course selection very carefully bearing in mind pre- and co-requisites and the fact that certain courses may not be available in a particular session.

Programmes which are available in the evening are listed below with a brief description of the availability of courses. Students are encouraged to consult their Programme Supervisor in planning their course selections. The summer timetable is available in the Registrar's Office normally in February.

Economics Major and Minor Programmes

Each of the four courses specifically required for the Economics Major (ECON20Y, ECON20Y, ECON20Y, ECON20Y) is offered in the evening at least once per year. ECON20Y and ECON20Y are offered in both summer and winter evening sessions each year. ECON20Y and ECON20Y are offered in each winter evening session, and one is usually offered in each summer session. Each winter session, and in some summer sessions, at least one other course at the B-, C-, or D-level is offered.

English Specialist, Major and Minor Programmes

English courses are, as far as possible, cycled as follows:

- ENG10Y - every two years
- ENG12H - every two years
- ENG10Y - every two years
- ENG20Y - every four years
- ENGL10Y & ENGL10Y (ENG40Y)
- (ENG60Y) - every four years
- Pre-1800 courses - at least one every two years
- Post-1800 courses - at least one every year
- D-level courses - usually 2 half-courses every year.

History Specialist, Major and Minor Programmes

HIST20Y offered in the evening normally every other year.

Upper level History courses - at least two offered every year.

Psychology Specialist, Major and Minor Programmes

The following courses are normally offered annually in the evening and/or in the summer: PSY20Y, PSY20Y, and PSY20Y, all of which are required for both programmes. As well, all courses in each of the course areas and all D-level courses appear in the evening or summer at approximately a 3-year cycle. Part-time students are also encouraged to check the offerings on the St. George campus, to which they have access and which they will find are not identical to those at Scarborough in a given year.

Sociology Minor Programme

Some Sociology courses are offered in the evening or summer session every year. These will normally include SOC20Y and one full-course equivalent at the B or C-level. Every effort will be made to include these upper level courses so that students can complete the Minor Programme in Sociology in no more than three years.
Course key

The Code Course
1 The Discipline Abbreviation
   The first three letters of the course code indicate, in an abbreviated form, the discipline or subject area of the course.
   ANTASIY "ANT" indicates a course in Anthropology.
   HSDAIVY "HIS" indicates a course in History.

2 The Course Level
   The fourth letter of the course code indicates the level of the course with "A" indicating the most elementary level and "D" the most advanced.
   (In the Student Telephone Service a separate three-digit numeric code indicates discipline.)

3 The Course Number
   The fifth and sixth letters 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 and Duration of a Course
   The final letter of the course code indicates the credit value and duration of a course as follows:

<table>
<thead>
<tr>
<th>Final Letter</th>
<th>Credit Value</th>
<th>Winter Session</th>
<th>Summer Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Full Course</td>
<td>Sep.-May</td>
<td>May-Aug</td>
</tr>
<tr>
<td>F</td>
<td>Half Course</td>
<td>Sep.-Dec.</td>
<td>May-June</td>
</tr>
<tr>
<td>H</td>
<td>Half Course</td>
<td>Jan.-May</td>
<td>July-Aug</td>
</tr>
<tr>
<td>A</td>
<td>Full Course</td>
<td>Sep.-Dec.</td>
<td>May-June</td>
</tr>
<tr>
<td>B</td>
<td>Full Course</td>
<td>Jan.-May</td>
<td>July-Aug</td>
</tr>
</tbody>
</table>

For example, ANTA01Y is an elementary course in Anthropology taught throughout the session and worth a full course credit. HSDA04Y is an advanced course in History taught in the second term and worth one-half a course credit. (In the Student Telephone Service Y = 0, F = 1, H = 2, A = 3, S = 4, B = 5, N = 6, A = 7, B = 8.) The last digit of the telephone course identifier indicates campus (with Scarborough = 0.)

In systems using semester hours as the credit unit, "Y", "F" and "A" courses would be considered equivalent to six semester hours of credit and "H", "S" and "B" courses would be the equivalent of three semester hours of credit.

Exclusions, Prerequisites and Corequisites

1 Exclusions
   A student may not register for a course which lists, as an exclusion, one which the student is also taking or has already passed. Courses are not always mutually exclusive, so it is important to check the entries for both courses when one lists the other as an exclusion.

2 Prerequisites
   A student must have passed the prerequisite course before enrolling in the course being described. Instructors are permitted to waive prerequisites if they feel that there are adequate grounds for so doing. If a student registers in a course without meeting its prerequisite and without obtaining a specific waiver, the student may be withdrawn from the course at any time during the session. Students who are not withdrawn from the course remain in it at their own risk, for the sake of the prerequisite is not grounds for special consideration.
   Students who complete courses for which they have obtained a waiver of specific prerequisites may not subsequently obtain credit for the less-advanced prerequisite course.

Corequisites

Students must either already have passed the corequisite course, or must enroll in it at the same time as they take the course being described. Students may not register for waiver corequisites if they feel that there are adequate grounds for so doing. If students register in a course without meeting its corequisite, or if they withdraw from the corequired course without obtaining a specific waiver of the corequisite, they may be withdrawn from the course at any time during the session. Students who are not withdrawn from the course remain in it at their own risk, for lack of the corequisite is not grounds for special consideration.

4 Exclusions, Prerequisites and Corequisites in Parentheses
   Prerequisites in Square brackets [ ] are prerequisites to indicate aggregate or alternate choices (example: [ENG011Y & ENG009] or [ENG011Y & ENG009]). Some exclusions and some prerequisite and corequisite courses are enclosed in parentheses: examples (LAT010P). This indicates that the course is no longer in the College's curriculum. Students who have already passed an excluded course contained in parentheses may not take the course being described. Students who have completed, in a previous session, a course that constitutes a corequisite course contained in parentheses may make use of the course to meet the requirements of the course being described.

Supervised Reading, Supervised Research and Independent Study

Students in these courses work under the individual supervision of a faculty member with whom they meet periodically or in whose laboratory they work. Students must obtain written permission of instructors before enrolling in these courses (forms are available from the Registrar's Office.)

Course selection

In selecting their courses, students must adhere to the following regulations:

1 Prerequisites and corequisites for each course, as stated in the course description, must be met, unless waived by the instructor.

2 Students may not register for credit for a course which they have already passed. Students must not register in another course shown in the course description as an exclusion or corequisite.

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 only in cases such as 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 which is a specific prerequisite for a course which they have already passed.

5 Where students may not register in courses for credit, they may register in them as extra courses. In such cases, both registrations in the course are shown on the student's record but the second grade is not included in the student's grade point average nor does the course count towards the degree.

6 Students may normally select as many courses as they wish each session. Students should, however, note the following:
   - The usual load for a full-time student in the Winter Session is five courses.
   - The usual maximum load for a student in the Summer Session is two courses.
   - Students who are on probation are strongly advised to carry no more than an average course load. Should they choose not to follow this advice, they will be subject to academic probation.
   - In the Winter Session students are assigned no more than 6.5 courses in August. Students wishing to enroll in more than 6.0 must wait until the second week of the term and then register for additional courses.

7 Students are not permitted to register in courses on the St. George or Erindale campus for courses 278 and 299 in this Calendar. The "overall limits" to the individual campus may be especially important.

8 Full-time students are those students whose enrolment is at least four courses in the Winter Session.

9 Students who are restricted to part-time study may have a course load of at most 3.0 in the first half of the year and 3.5 in the second half, and of at most 2.0 in the Summer Session until they have completed at least three terms and have a cumulative grade point average of at least 2.0. Term course load is calculated as follows:
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 withdrawing from courses, stated in the “Academic Calendar” of this Calendar;
- must notify the Registrar’s Office of any change through the Student Telephone Service or by means of a course selection form, submitted by the appropriate deadline.

When multi-section courses have a common examination, students enrolled in the evening section of the course may be required to sit an examination during the day.

NOTES:
1. A course. The word course is used in two ways: a) to describe a full or half course such as "the last day to withdraw from a course", or b) to describe a number of full courses, or the equivalent in full and half courses such as the requirement of passing fifteen courses for a three-year degree.
2. To Pass a Course. To pass a course means to obtain a grade of D+ or better in that course (or "Credit" in a Credit/No Credit course).
3. A Specific Prerequisite. This rule does not apply in the case of non-specific prerequisites (such as "one B-level course in English") where one of two or more completely different courses may serve as a prerequisite.

Registration
Registration consists of two basic steps:
1. Course selection.
2. Fees payment.

Both must be completed by the appropriate deadlines in order to be considered a "registered" student and to retain a place in any course selected. (For deadlines and further information, see the registration material published separately for each session.)

Course selection
Courses may be selected either through the Student Telephone Service or by submitting a course selection form directly to the Registrar’s Office. (For regulations on course selection, see page 223.)

Fees payment
The University Fees Department publishes a schedule of fees for each session. The schedule for the 1998 Summer Session and the 1998-99 Winter Session will be included in the registration packages. Further information on fees may be obtained from the Fees Department, University of Toronto, 215 Huron Street, Toronto, Ontario, MSS 1A2, (416) 978-2142.

Programme registration
All degree students with at least 4.0 credits are required to register in their Specialist, Major or Minor Programmes. Students may only register in Programmes offered by University of Toronto at Scarborough. (For regulations governing Programmes, see page 14 of this Calendar.)

Summer Session
1998 Summer Session registration begins April 8. Students who registered at the College in the 1997 Summer Session or in the 1997-98 Winter Session and who are not on suspension are eligible to register. Beginning on March 23, students may pick up their registration packet from the Registrar’s Office. New students, students who re-enroll (i.e. reactivate their enrollment after an absence of one year or more), and other students who are not on campus (e.g. students who withdraw) will be mailed their registration material upon request.

Most courses in the Summer Session are assigned on a first-come-first-served basis.

Winter Session
1998 Winter Session registration begins on June 22. Students who registered at the Colleges in the 1997-98 Winter Session and who are not on suspension are eligible to register. Registration packages will be available in the Meeting Place March 23 R-24. New students and students who re-enroll (i.e. reactivate their enrollment after an absence of one year or more) may pick up registration packages from the Registrar’s Office. Registration packages will be mailed on request.

Course scheduling
All requests for course enrolment received by the August deadline will be considered at the same time.

Priorities for course scheduling
With the exception of courses with restricted admittance, priority is given as follows:

<table>
<thead>
<tr>
<th>Year of study</th>
<th>Credits</th>
<th>Priority given in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th</td>
<td>&gt;14.0</td>
<td>all courses</td>
</tr>
<tr>
<td>3rd</td>
<td>9.0 to 14.0</td>
<td>C &amp; D level</td>
</tr>
<tr>
<td>2nd</td>
<td>4.0 to 8.5</td>
<td>B level</td>
</tr>
<tr>
<td>1st</td>
<td>&lt;4.0</td>
<td>A level</td>
</tr>
</tbody>
</table>

Once the course change period begins, places in courses which do not have restricted admittance are assigned on a first-come-first-served basis.

Timetables
Following the August course scheduling, personal timetables will be mailed to all students who have requested enrolment in a course. Personal timetables are not produced to reflect changes made after the August scheduling.

Student Telephone Service and the World Wide Web

University of Toronto Student Telephone Service [416-673-4628]

University of Toronto at Scarborough students with access to a telephone may use the Student Telephone Service:

- to: add courses
- drop courses
- change sections
- list courses on their record
- see if there is still room in a course
- receive STG campus bulletin results
- avoid linesup
- obtain grades
- For detailed instructions on using the Student Telephone Service see the Registration Instructions for each session.

Telephone course identifiers are the numbers which appear next to the course code in the course descriptions in this Calendar and in the master timetable. If a course changes term, e.g. from "Fall" to "Winter," it changes telephone course identifier - see "Course Code" on page 222 of this Calendar for more information.

By using the Student Telephone Service, students are modifying their own computer records.

Access is through student number and a four digit personal identification number (PIN). PIN usually consists of month and day of birth (e.g. 0323 for March 23). For this reason it is important not to give both student number and date of birth to anyone else. Students who are concerned about security may change their PIN through the Registrar’s Office to one of their own choice. PINs will not be changed without photo identification. For security there is a limit on the number of attempts which can be made to enter PIN. Students who exceed the limit will have their access to the Student Telephone Service suspended and should contact the Registrar’s Office immediately. Access will not be restored without photo identification.

Using the Student Telephone Service
Students are guided through each step of the telephone call and are asked at certain points to confirm their intent. The call must progress through all steps before any change is made to the student record. When it has, the system will confirm that the transaction is complete and will offer other options or will end the call. When changing courses, it is important always to end the call by using the "list" option to verify that the call has progressed as it should and that the record is correct.

Student Telephone Service hours
The Student Telephone Service is normally available from 7:00 a.m. to 7:00 p.m. on Monday through Friday from 7:00 a.m. to 5:00 p.m. on Friday. At certain times of the year the hours and days are extended.

Service to the hearing-impaired
Access to the Student Telephone Service is available by the Bell Relay Service. Students who do not use the service may request a refund by submitting a refund form to the Registrar’s Office by the appropriate deadline. (See the fees information published each session for deadline dates.)

Further information on the Student Telephone Service and telephone timetables is included in the registration material.
Course Changes

World Wide Web http://kcar.uwo.ca/os/project/courses.html

Students with a computer account may obtain information and complete certain tasks, such as changing their address or telephone number, through the World Wide Web. Available information includes:
- the information in this Calendar
- changes to the Calendar
- timetable for each session
- examination timetables
- divisional, discipline and course information
- faculty home pages
- faculty and administration telephone directories

Additional features are gradually being introduced.

Course changes

Students may add courses or withdraw from courses without academic penalty up to the dates stated in the Academic Calendar on page 6, either through the Student Telephone Service or by submitting a course selection form to the Registrar’s Office. The deadlines for adding or withdrawing from courses are strictly applied. Students who make changes through the Registrar’s Office are given a mailed or e-mailed copy of the course selection form and should retain it until they have received their statement of results for the particular session. Students who make changes through the Student Telephone Service should end their call 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 log kept by the University of activity in the Student Telephone Service. At the time students add a course to their record they are assuming responsibility for fees paid for it. Students who withdraw from courses by the appropriate deadline may be entitled to a fee adjustment. (See the fees information published each session for more information.)

Adding a course

Some courses have a restricted admission and require approval before students are allowed to enrol in them. A list of restricted courses and the approval needed to enrol in the Registrar’s Office at the beginning of each session is available.

Changing sections in a course

Students may change 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 section or from the course coordinator. Changes must be recorded at the Registrar’s Office either through the Student Telephone Service (until the last day to add the course) or by means of a course selection form.

Dropping a course

If students withdraw from a course by the appropriate 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 deadline, a grade based on the marks awarded (excluding any errors for any incomplete work) will be recorded.

Withdrawal from the session

Students who wish to withdraw from the College for a given session do so by withdrawing from all courses by the dates specified in the Academic Calendar. Students must also complete the following procedures:

- return any borrowed books to the Library, pay any outstanding library fines and receive clearance from the Library.
- return any equipment borrowed from the College Recreation Centre and leave the key in the locker.
- surrender any College locker and return any deposit (or a partial refund) any College parking permit; and
- surrender any laboratory or test equipment.

Students who wish to withdraw from the College are advised to speak to an academic counsellor. The counsellor will advise students concerning the academic consequences of their withdrawal (deadline dates, eligibility for re-admission, etc.), any fees adjustments and repayment of Ontario Student Assistance.

Standing in a course

Grading scheme

Students are assigned a grade in each course, as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Point Percentage Equivalent</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>90-100</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>85-89</td>
</tr>
<tr>
<td>B</td>
<td>3.3</td>
<td>80-84</td>
</tr>
<tr>
<td>B-</td>
<td>3.0</td>
<td>77-79</td>
</tr>
<tr>
<td>C</td>
<td>2.7</td>
<td>70-72</td>
</tr>
<tr>
<td>C-</td>
<td>2.3</td>
<td>67-69</td>
</tr>
<tr>
<td>D</td>
<td>2.0</td>
<td>63-66</td>
</tr>
<tr>
<td>D-</td>
<td>1.7</td>
<td>57-59</td>
</tr>
<tr>
<td>E</td>
<td>1.0</td>
<td>53-56</td>
</tr>
<tr>
<td>CR</td>
<td>0.7</td>
<td>50-52</td>
</tr>
<tr>
<td>E+</td>
<td>0.3</td>
<td>35-49</td>
</tr>
<tr>
<td>P</td>
<td>0.0</td>
<td>0-34</td>
</tr>
<tr>
<td>NCR</td>
<td>0.0</td>
<td>No credit</td>
</tr>
</tbody>
</table>

The grades of "E", "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.

Credit/no credit courses

In some courses such as certain visual and performing arts courses or certain drama courses, specific letter grades may not be assigned. Students may instead be graded on a Credit/No credit (CR/NCR) system. The grade of "No credit" is a failing grade.

Where students earn a grade of "Credit" in a course, the course is not included in the grade point average; where students earn a grade of "No Credit", the course is included in the grade point average at a value (zero) in the grade point average.

Agrégat standing

The Sub-committee on Standing may, on petition, assign a grade of "Agrégat" (AG). This grade is assigned on the basis of work completed where identical 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 Agrégat standing, the course 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 courses

Extra courses are those courses in which students may not register for credit (see "Course Selections" on page 222). The course and its grade will appear on the student’s transcript (designated as an extra course) but the grade will not be included in any grade point average.

Other notations

The following have no grade point value and do not yield credit:

- WGR = Withdrawal by petition without academic penalty after the relevant deadline. (See "Special Consideration, Petitions and Appeal" on page 243.)
- WGR = withdrawn pending review
- NOA = grade not yet assigned

Overall standing

Grade point average

At the end of each term (May to August) and each winter session (December to May) both a sessional and a cumulative grade point average (GPA) will be calculated for each student, and shown on the student’s transcript.

1. A grade point average is calculated as follows: the grade points earned in each core and one-half the grade points earned in each half course are added together and this total is divided by the number of full courses (or equivalent) taken.

2. A sessional grade point average is calculated on the basis of all courses taken in a given session (winter or summer) 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.

Determination of academic status

Academic status will be determined as follows, for students who have attempted at least two and one-half full courses (or equivalent) since beginning their studies at University of Toronto or Member of the University of Toronto at the University of Toronto’s Faculty of Arts and Science. It is determined at the end of each Summer and each Winter Session.
### REVISITED GRADING SCALE
**Effective 1998-99 Winter Session**

(For earlier sessions, refer to the University of Toronto at Scarborough - Guide to Transcripts, found on the reverse side of the official transcript)

<table>
<thead>
<tr>
<th>Definition</th>
<th>Basic letter grade</th>
<th>Letter grade</th>
<th>Grade point</th>
<th>Percentage equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>A</td>
<td>A+</td>
<td>4.0</td>
<td>90-100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>4.0</td>
<td>85-89%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A-</td>
<td>3.7</td>
<td>80-84%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B+</td>
<td>3.3</td>
<td>77-79%</td>
</tr>
<tr>
<td>Good</td>
<td>B</td>
<td>B</td>
<td>3.0</td>
<td>73-76%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B-</td>
<td>2.7</td>
<td>70-72%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C+</td>
<td>2.3</td>
<td>67-69%</td>
</tr>
<tr>
<td>Adequate</td>
<td>C</td>
<td>C</td>
<td>2.0</td>
<td>63-66%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C-</td>
<td>1.7</td>
<td>60-62%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D+</td>
<td>1.3</td>
<td>57-59%</td>
</tr>
<tr>
<td>Marginal</td>
<td>D</td>
<td>D</td>
<td>1.0</td>
<td>53-56%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D-</td>
<td>0.7</td>
<td>50-52%</td>
</tr>
<tr>
<td>Inadequate</td>
<td>F</td>
<td>F</td>
<td>0.0</td>
<td>0-49%</td>
</tr>
</tbody>
</table>

- Grade Point Average is based on a 4 point scale
- Numeric mark and its letter grade equivalent are recorded on transcripts
- Letter Grade E has been eliminated
- Grades below 50% earn a letter grade of F, with a grade point value of 0.0

Revised February 12, 1999
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 two and one-half courses in the College and have a cumulative GPA of less than 1.60 are placed on probation.
- Students returning from suspension (under 5) below (or under any provision in previous College rules) shall be placed on probation again.

3 Probation cleared.

Students may clear probation by achieving a cumulative GPA of 1.60 or better.

4 Probation continued.

Students who have attempted at least two and one-half courses in the College and have a cumulative GPA of less than 1.60 shall be placed on probation again.

5 Suspended or refused further registration.

Students who, by the end of a given session, whether Summer (May to August) or Winter (September to May), 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 courses taken in the session:

- Students who have incurred no previous suspension will be suspended for one year.
- Students who have previously incurred (at most) one year suspension will be placed on probation for one year.
- Students who have previously incurred a three year suspension will be refused further registration in the College.

6 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 second full-course equivalent.

2 Where such students earn a cumulative grade point average of 1.70 or better, their conditional status will be removed, and they will be said to be "in good standing."
registration and mail promptly to enhance your chances of obtaining your first choice of university. Once you know the university to which you have been accepted and at least three weeks before your departure, apply for a Letter of Permission. You will be advised of the level in which you must register in order to be eligible for the credit to be transferred.

(ii) Study Elsewhere year
To apply for a Study Elsewhere programme, students may obtain an application from the Assistant Registrar-Admissions or the Vice-Principal and Vice-Dean. The application requirements details about the proposed course of study and asks students to show how the intended studies will enhance their studies at University of Toronto at Scarborough. Students who intend to count the courses towards programme requirements must obtain the approval of the Programme Supervisor before submitting the application. Students normally apply for a Study Elsewhere year during the third year of a four-year programme. However, students may apply after completing four full-course equivalents at University of Toronto at Scarborough. To be eligible a student must have a cumulative grade point average of 2.5 or better. Students must normally return to University of Toronto at Scarborough to complete the final year of study. A maximum of 5.0 full-course equivalents will be considered for transfer. Completed applications should be submitted to the Vice-Principal and Vice-Dean by March 1. The programmes will be reviewed by the Study Elsewhere Committee.

Since there is often limited information available to foreign universities, students should begin the process early in October. 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.

(iii) International Student Exchanges
The University of Toronto has several institution-wide student exchange programs. A student must have approval from UofT at Scarborough and the International Student Exchange Office to undertake an exchange program. Undergraduate programmes include:

- Chinese University of Hong Kong
- University of Hong Kong
- National University of Singapore
- Kyushu University (Japan)
- Humboldt University, Berlin, Germany
- The Canadian-Taiwan Student Exchange Program A regional exchange program that includes 16 institutions in Taiwan
- Ontario/Radn Wurtemburg Exchange Program (Germany) A regional exchange program that includes 9 German universities
- Ontario/Rhine-Alps Student Exchange Program A regional exchange program that includes 14 French universities and institutions
- University of the West Indies (Barbados, Jamaica & Trinidad)
- University of Melbourne (Australia)
- University of New South Wales (Australia)
- Lancaster University (United Kingdom)
- Canadian University Study Abroad Program, Hermononafon (East Sussex, England)

Canadian Student Exchanges
(Group of Ten Student Exchange Program - GTSSEP)

- McGill University
- McMaster University
- Queen's University
- Université Laval
- Université de Montréal
- University of Alberta
- University of British Columbia
- University of Waterloo
- University of Western Ontario

For further information and applications contact:
International Student Exchange Office
Office of the Vice-President and Provost
Room 202 Koffler Student Services Centre
214 College St., Toronto, ON M5T 229
Tel: (416) 978-3138
Fax: (416) 978-6110
http://www.studentexchange.utoronto.ca
E-mail: student.exchange@utoronto.ca

Admissions and Liaison, Room 5303F

(iv) 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. The student must arrange for the host university to send an official transcript to University of Toronto at Scarborough promptly after completion of the course. Students who do not register or who withdraw without academic penalty must 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" being entered on the student's transcript at University of Toronto at Scarborough.

Fees and Aid
Students pay the appropriate fees to the host university and a Study Elsewhere fee or Letter of Permission fee will be charged by the University of Toronto at Scarborough. Students who would be eligible for financial assistance through the Ontario Student Assistance Programme for study at University of Toronto at Scarborough may be eligible for similar assistance in their Study Elsewhere year.

(Consult the Student Awards division of Admissions and Awards at 978-2190.)

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

Contents
The transcript records the following information:
1. Information to identify the student: full name and university affiliation
2. The student's academic record, listed chronologically by subjects:
   - each course attempted, its abbreviated title, and its grade:
   - the cumulative grade point average at the end of the session:
   - the student's academic standing at the end of the session: good standing, on academic probation, suspended for one year, suspended for two years, refused further registration, or suspension deferred:
   - completion of degree and Programme requirements, and date of conferral of the degree
   - any academic honors awarded: scholarships, prizes or medals awarded by the College or by the University, inclusion on the University of Toronto at Scarborough Honours List, and graduation with high distinction or with distinction
   - other information

3. The following kinds of special consideration granted by the Student Awards Division (See "Special Consideration, Petitions and Appeals" on page 243)
   - withdrawal without academic penalty from a course after the relevant deadline. (See "Standing in course" on page 227)
   - extensions of time to complete term work (except where the student fails to take advantage of the extension offered)
   - deferred examinations and the rewriting of examinations
   - other consideration deemed to have altered the academic record.

Ordering Copies
Students may obtain copies of their academic transcripts, subject to reasonable notice and upon payment of a fee. Copies of transcripts may be requested in person or by letter only. (As a student's signature is required to authorize release of the transcript, in order to protect confidentiality of records, telephone requests cannot be accepted.)

To order copies of transcripts, students should visit the Registrar's Office, or should write to Registrar's Office, University of Toronto at Scarborough, 1355 Military Trail, Scarborough, Ontario, M1C 1A4. In order to order copies of transcripts, students should visit the Registrar's Office, or should write to Registrar's Office, University of Toronto at Scarborough, 1355 Military Trail, Scarborough, Ontario, M1C 1A4. In order to order copies of transcripts, students should visit the Registrar's Office, or should write to Registrar's Office, University of Toronto at Scarborough, 1355 Military Trail, Scarborough, Ontario, M1C 1A4. In order to order copies of transcripts, students should visit the Registrar's Office, or should write to Registrar's Office, University of Toronto at Scarborough, 1355 Military Trail, Scarborough, Ontario, M1C 1A4.

The charge for copies of transcripts sent to other divisions of the University of Toronto.

Copies of transcripts sent directly to educational institutions, and other institutional recipients, are charged to the student's account. Copies sent directly to students do not bear the College and University seal. Copies sent directly to students do not bear the College and University seal. Copies sent directly to students do not bear the College and University seal. Copies sent directly to students do not bear the College and University seal.
Policy on Access to Student Records

1. Purpose
   (a) Academic records of students are ultimately the property of the University, and it is the responsibility of the University to establish and maintain a 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.

2. For the purposes of this policy:
   (a) "student" means any person registered at the University for full-time or part-time study.
   (b) "student's academic performance" means any post-secondary diploma or certificate of the University or in a program designated as a program of post-secondary study at the University by the Governor in Council or other University body having delegated authority. On the date of an equity or request relevant to this policy, persons have been registered within a period of two calendar years shall be included in the provisions which relate to "students".
   (c) "alumni or alumna" means any person who has received a degree or post-secondary diploma or certificate from the University, or any person who has completed one year of full-time studies or the equivalent thereof as determined by the governing council, towards such a degree, diploma or certificate, and is no longer registered at the University.
   (d) "former student" means any person who is not a student or an alumna or alumna who has been registered at the University in a program as defined in Section 2 of the Student Academic Records Act, and is no longer registered at the University.

3. Definition of the official student academic records
   The official student academic record refers to information relating to a student's admission to and academic performance at the University.

4. Access to official student academic records
   (a) Access by a student
      (i) A student may examine and have copied made of his or her official student academic record, defined in Section 3 of this Act, with the exception of those portions of the record which comprise letters of reference, which have been provided or obtained by consent or implied understanding that they shall be made available 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 authority within 30 days of receipt of the request or within such lesser period as a division may determine.

5. Registration and enrolment record
   (i) Registration and enrolment record is the responsibility of the Office of the Registrar and is recorded in the Office of the Registrar.

6. Basis for a student's admission
   The official student academic record shall be maintained at the University. For each type of information, academic divisions shall designate which document, form or medium contains the official version and how official copies of such information shall be authenticated.

7. Personal and biographical information such as address and telephone number
   The personal and biographical information such as address and telephone number shall be maintained in confidence.

8. Personal and biographical information such as address and telephone number
   (i) Personal information which is required in the administration of official student academic records shall be maintained in confidence.

9. Access by alumni and former students
   (i) A former student or his or her authorized representative shall be entitled to examine his or her official student academic record as defined in Section 3 of the Student Academic Records Act, with the exception of those portions of the record which comprise letters of reference, which have been provided or obtained by consent or implied understanding that they shall be made available in confidence.

10. Access by alumni and former students
    (ii) A current student or his or her authorized representative shall be entitled to examine his or her official student academic record as defined in Section 3 of the Student Academic Records Act, with the exception of those portions of the record which comprise letters of reference, which have been provided or obtained by consent or implied understanding that they shall be made available in confidence.
University Grading Practices Policy

The following is the text of the University grading practices policy. Square brackets [ ] indicate additions to the policy to clarify or interpret as it applies specifically to the University of Toronto at Scarborough.

Purpose

The purpose of the University Grading Practices Policy is to ensure:

a) that grading practices reflect the academic standards;

b) that the evaluation of student performance is made in a fair and objective manner against these academic standards;

c) that grade scales, while remaining suited to the particular circumstances of every division, are compatible with each other;

d) 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.

5. Custody and retention of official students academic records

(a) Academic records of students are normally under the custodial responsibility of the academic division. Every academic division maintaining official student academic records shall develop a set of up plans for the eventual disposition of their records in consultation with the University Archives and in accordance with approved records schedule which is in compliance with this policy.

(b) Those portions of the official student academic record as defined in Section 3(a) shall be maintained permanently. Each academic division’s records schedule shall specify the document, form or medium in which these records will be maintained.

(c) Official student academic records preserved in the University Archives because of their archival value shall become open to researchers authorized by the University for 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.
# University Grading Practices Policy

## Grade scales
- **L2** Once a judgment on the performance of the student has been made, the following grade scales may be used in accordance with divisional practice:
  - (a) the standard letter grade scale;
  - (b) the numerical scale of marks; and/or
  - (c) the scales Honours/Pass/Fail and Credit/No Credit.

For the scale used at University of Toronto at Scarborough, see page 227.

## Grades vs. scores
- **L4** 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.

- **L5** A table of correspondence and a translation table are defined in the Appendix for each of the letter grade scales referred to in L3(a) in order to allow the conversion, when necessary, of a grade assigned from one scale to the corresponding grade in another. It should be noted that these tables are not to be used to translate a score to a grade directly.

## Grade reporting
- **L6** Only one letter scale, as referred to in L3(a) may be used in a division for assigning grades, but the numerical scale and the H/F/P/F and CR/NCR scales, as referred to in L13(b) and (c) respectively, may also be used. The grades assigned in a course, however, must all be from the same scale.

- **L7** Grades in each course shall be assigned according to the practice of the division, offering the course.

- **L8** Grades for each course shall be assigned with references to the following meaning (which may be expanded in the divisional regulations under Part I):
  - Excellent
  - Good
  - Adequate
  - Inadequate
  - Worthy Inadequate

## Approval of grades
- **L9** Grades shall be recommended by the instructor to the chair or division head. The grades shall then be reviewed and approved following the divisional review procedure. Grades shall not be overturned or released to students as official until the divisional review procedure has been carried out. The divisional review committee finalizes the grade and, except when grades are changed on appeal,
(b) After the methods of evaluation have been made known, the instructor may not change the methods without the consent of at least a simple majority of the students enrolled in the course. Any changes shall be reported to the department.

(c) Student performance in a course shall be assessed on more than one occasion. No one essay, test, examination, etc., should have a value of more than 80% of the grade. Criteria for exemption may be determined by the division.

- [Exempt from this requirement are advanced seminar courses or supervised research or supervised reading courses. In such courses more than 80% of the final grade may be based on a thesis, a research essay or project, or a comprehensive examination.]

(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.

- [In A-level courses, at least one-third of the final grade will be based upon a formal examination(s) in the Christmas examination period in December and/or in the final examination in the division of April and May (in comparable examination periods in the Summer Session).]

- In B-level, C-level and D-level courses, at least one third of the final grade will normally be based upon a formal examination(s). Alternatively, a supervised term test(s), valued at least one-third of the final grade, may be substituted for the formal examination(s) with the annual request of the instructor and approval of appropriate Divisional Chair.

- The following courses may be exempted from the requirement for examinations, upon annual request of the instructor and approval of the appropriate Divisional Chair: advanced seminar courses; supervised reading or research courses; field courses; and performance courses such as music performance or art studio courses. All courses which are exempted from the one-third examination requirement are reported annually to the Sub-committee on Curriculum & Standards of the Governing Council.

- Oral Examinations. At the discretion of the instructor an oral examination may be required in conjunction with any piece of written work. At the examination, the student must defend the ideas advanced in the paper. The grade assigned for the paper may be substantially affected by the results of the oral examination.

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.

- Commentary on assessed term work and time for discussion of term work shall be made available to students.

- At least one piece of term work which is a part of the examination of a student's performance, whether essay, lab report, review, etc., shall be returned to the student prior to the last day for withdrawal from the course without academic penalty.

- The following two categories of courses shall be exempted from the requirement: field courses such as Anthropology and Geology; independent research and senior thesis courses, which are by definition "one-course" courses with continuous enrollment throughout the year, and large single end-of-year segments which constitute the basis of the final mark.

(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 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).

3.2 Procedures in the event of disruptions

Principles

The following principles shall apply in the event of disruption of the academic program:

1. The academic integrity of academic programs must be honoured;

2. 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 classes of the academic program.

(b) Individual instructors or multi-section coordinators are responsible for courses that are disrupted. Determinations as to the disruption proceeds, whether any changes to classroom procedures are needed to complete the course.

Changes to the classroom procedures should, where possible, first be discussed with students prior to the class in which a vote of the students present on the proposed changes is to be taken. Changes agreed upon by consensus should be forwarded to the department or division with a report on the attendance at the class where the vote was taken.

(d) Where consensus on changes has not been agreed upon, and where a vote is not feasible, the instructor, after the class discussion, will provide the division head or chair of the department in multi-departmental faculties, with his or her recommendation, along with the results of any classroom votes. The chair or division head shall then make a decision.

(e) Where classes are not able to convene, the instructor, with the prior approval of the chair in multi-departmental faculties or the division head, shall make changes deemed necessary to the classroom procedures. In the absence of the instructor, such changes will be made by the divisional head and require the approval of the Provost. Where courses are to be cancelled, approval of the divisional council is required. If the divisional council cannot meet, approval of the division head, or in the absence of the division head, the approval of the Provost, is required.

(f) Students must be informed of changes to classroom procedures. This may be done by circulating the changes in writing to the class, posting in the departmental offices, reporting to the divisional council, as well as listing in the campus press. Students should be informed of the changes made during the disruption.

(g) Where a declared disruption occurs in a specific class, and the last day to drop classes for the academic term or session, students who do not wish to complete the course(s) during the term or session, may, prior to the last day to withdraw, withdraw without academic penalty. Students who withdraw from a course prior to the last day of classes as a result of a declared disruption shall receive a full refund of the course tuition fee.
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 standing 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 committee.

e) Where grades have been adjusted by a divisional committee, the student 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.

8.5 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 a 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 grade distribution that exceeds the limits and hence appear not to be based on the approved grade scale 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 beginning of the term the existence of any such limits.

(c) The criteria for the Divisional Review Committee shall employ in its evaluation is whether the instructor has followed the University Grading Practices Policy. The Review Committee shall not normally adjust grades unless the consequences of allowing the grades to stand would be injurious to the standing 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 committee.

e) Where grades have been adjusted by a divisional committee, the student 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 achievement scores, 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 and what specific grade distribution is anomalous. Rather, the information should provide part of the evidence on which an overall review of grades in a division.

(h) Where 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.

8.6 Assessment in clinical and field settings

Divisions may make reasonable exceptions to the classroom procedures described above in circumstances such as field or clinical courses where adherence to those procedures is not possible. Nevertheless, it is obligatory that the assessment of the performance of students in clinical or field settings be fair, reliable and in accordance with the principles enunciated in the University Grading Practices Policy. Accordingly, where students’ 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 by which the performance of the students shall be assessed.

(b) A mid-year performance evaluation with feedback to the student;

(c) Written documentation of the final assessment. In addition, for each clinical and field experience, divisions must ensure that:

(d) Clinical and field assessors 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.

(e) Any exception from the above would require a divisional request with explanation for approval by the Governing Council.

8.7 Conflict of Interest

When the instructor or a student has a conflict of interests, or is in a situation where a fair and objective assessment may not be possible, this should be disclosed to the chair or division head who shall take steps to ensure fairness and objectivity.

Appeals procedure

Every division shall establish divisional appeal procedures. Students may appeal grades according to the procedures established for that purpose in the division. The appeal may be made whether marks have been altered by the review process or not. Three procedures shall be outlined in the divisional Calendar, and available upon request at the faculty or registrar’s office.

For procedures for appeals concerning grades and grading practices, see "Procedures for requesting special consideration, petitions, and appeals" (page 243).
Examinations

Examinations are held at the end of both terms in 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 circumstances. Information regarding dates and times of examinations will not be given by telephone.

Students are responsible for reading the timetable carefully and appearing at the time specified. Students taking courses during the day may be required to write evening examinations and students taking evening courses may be required to write day examinations.

Examination timetable conflicts
Students scheduled to write two examinations at the same time should report their conflicts to the Assistant Registrar (Secretariat and Scheduling) (Room S416A, (416) 287-5740)

Arrangements will normally be made for students to write both examinations on the same day, with a supervised break. Where the conflict involves a St. George Campus course, arrangements will normally be made for both examinations to be written at University of Toronto at Scarborough. Requests for such arrangements must be made no later than two 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 Assistant Registrar (Secretariat and Scheduling) no later than two weeks before the commencement of examinations. Requests will not be considered after that time.

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 (page 245).

Identification cards
Students will be required to identify themselves at examinations by means of their University of Toronto photo identification card. Students who do not have this card should arrange to obtain one and will be at risk of advance of the day of their first examination.

Examination room regulations
1. All examinations are written in the examination rooms within the final ten minutes of an examination, during which time they shall remain quietly seated at their desks.
2. At the conclusion of an examination all writing within the answer books shall cease. The invigilator may refuse to accept the answer books if the candidate fails to observe this requirement.
3. Examinations books and other material issued for the examination shall not be removed from the examination room without the authority of the invigilator.
4. Smoking is not permitted in the examination rooms.

Special consideration, petitions and appeals
From time to time students may need to ask for special consideration in their academic work or for exceptions to be made to the academic regulations. Such requests normally arise as a result of their being affected by something outside their control, such as illness, accident or the death of a family member. Very occasionally students may find themselves in a situation not foreseen by the College 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 courses on the St. George Campus. You are responsible for observing the regulations governing any courses you take on other campuses.

You should seek special consideration only when there are circumstances which are not only beyond your control but which you could not reasonably have anticipated or overcome and which have seriously affected your studies.

A. Term work
1. If:
   • you are unable to write a term test, or
   • your performance on a test is adversely affected by illness or other extenuating circumstances,
   • 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 Division offering the course.
2. If it is close to the end of term and you need an extension of time to complete term work or to write a term test, your instructor jointly with the Divisional 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 B below). If your petition is granted, you will be given a deadline by which to complete the work and the extension will be noted on your transcript.

B. Final examinations
1. If illness or other extenuating circumstances prevent you from writing a final examination, you may request special consideration by means of a petition (See B Below). This must be submitted as soon as possible and no later than the last day of the examination period.
2. If you are affected by illness or other circumstances which do not actually prevent your writing an examination, you are required to complete 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 B Below). Please note that final grades for 'A' and 'F' courses are available through the Student Service Centre in January. Grade statements are mailed to you only at the end of the semester.
3. If you are permitted to rewrite, the amended grade will stand, whether higher or lower.

4. Deferred examinations for all University of Toronto at Scarborough courses, including those which are being rewritten, are held as follows:
   - exams deferred from the December examination period are held in late February/early March
   - exams deferred from June and August are held in the December examination period
   - exams deferred from December are held in the study break immediately before the Spring examination period.

5. You must pay a fee to write any University of Toronto at Scarborough deferred examination.

6. 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.

7. You are given only one opportunity to sit a deferred exam and are expected to be available for the entire deferred examination period. If you will unavoidably be out of the Toronto area during the special examination period, you may apply to write at an outside centre.

8. If you miss a deferred exam, you may petition for an extension of time to write it, normally no other forms 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 in extremis.

9. Your transcript will show that you wrote a deferred examination.

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 term. If you wish to appeal an instructor’s decision about the grading of term work, speak with or write to the Chair of the Division offering the course.

2. Copies of Final Examinations
   Within six months of the relevant examination period you may obtain a photocopy of the final exam from the Registrar’s Office. A non-refundable fee is charged.

3. Checking Marks: Final Examinations
   If you think there is an error in the calculation of your final grade, within six months of the relevant examination period you may request a recalculation of the calculation through the Registrar’s Office on a form provided for this purpose. (It is 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 recalculate 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 six months 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 §E Below). You must do this within six months of the relevant examination period.

   When authorised, the re-reading is arranged by the Division offering the course, which also authorises any change in grade. Normally the re-reading is done by the course instructor, unless you make a convincing argument that the work be re-read by another faculty member. Claims of prejudice must be supported in detail and where 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 instructor refuses to discuss the complaint or to submit to the recommendations of 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 Division offering the course. If this appeal does not resolve the problem, you may appeal to the Principal of the College.
   (c) If you wish to withdraw from a course after the last day to withdraw without academic penalty on the grounds of a violation of the Grading Practices Policy, you must submit a formal petition (See §D Below). If your petition is granted because a violation of the Policy has occurred, no record of your registration in the course will appear on your transcript.

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 of the request. Please note that some academic matters cannot be petitioned, although sometimes these may be resolved with an instructor or a Division offering a course.

   When 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 on page 4.

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 wish 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 Registrarial Services or a personal counsellor 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.

   (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 will be granted only if you:
   - have no clear grounds for reconsideration, addressing the inclusion of an answer in relation to the mark given it or otherwise identifying the nature of the error
   - show that the alleged misconduct 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.

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, to advise you of the progress of your petition within that period. Completed petitions and petitions submitted during very busy periods may take longer.
6. If your petition is granted, the following will be recorded on your transcript (permanent academic record):

- withdrawal from courses after the published deadline (WDR)
- submission of term work after the deadlines ("extension of time")
- writing deferred examinations and rewriting examinations ("deferred exam")
- deferral of suspension ("suspension deferred")
- award of negative standing (ABG)
- other situations which are deemed to alter your academic record.

No notation is made in cases of error on the part of the University, including violations of the Grading Practices Policy.

6. Deadlines

The deadlines below apply to the University of Toronto at Scarborough. Deadlines and policies for courses taken on other campuses may differ. See the appropriate Faculty Calendar.

1. Term Work

- requests for special consideration on term assignments and term tests within the jurisdiction of the instructor: last day of classes
- petitions for resubmission of term work returned to you after the end of term: six months after the relevant examination period
- requests for re-reading of a final examination: six months after the relevant examination period
- requests for re-marking of marks through the Registrar's Office: six months after the relevant examination period

2. Final Examinations

Final Examinations: Summer and Winter Sessions

- petitions to rewrite final examinations in "A" and "P" courses: January 31
- petitions for rescheduling of final examinations in "B", "C", "H", and "I" courses: September 30

3. Missed Deferred Examinations

- petitions to rewrite a deferred examination which has been missed: last day of the relevant examination period

4. Errors in Course Registration or Withdrawal From Courses

- correction of 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: June 30 (Winter Session courses); September 30 (Summer Session courses)

5. Checking of Marks and Appeal 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: six months after the relevant examination period
- requests for a photocopy of a final examination: six months after the relevant examination period
- requests for re-reading of a final examination: six months after the relevant examination period
- petitions for re-reading of a final examination: six months after the relevant examination period

F. Appeals

1. You may appeal denial of a petition to the Sub-committee on Academic Appeals. Such a request must be submitted no later than six months after the decision being appealed has been communicated to you in writing.

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 Secretary to the Appeals Committee, Office of the Governing Council, Room 106, Simcoe Hall, St. George Campus (telephone: 416) 978-8794

Code of Behaviour on academic matters

A. Preamble

The concern of the Code of Behaviour on Academic Matters is with the responsibilities of all parties to the integrity of the teaching and learning relationship. Honesty and fairness must inform this relationship, whose basis remains one of mutual respect for the aims of education and for those ethical principles which must characterize the pursuit and transmission of knowledge in the University.

What distinguishes the University from other centres of research is the central place which the relationship between teaching and learning holds. It is by virtue of this relationship that the University fulfills an essential part of its traditional mandate from society, and, indeed, from history: to be an expression of, and by so doing to encourage, a habit of mind which is discerning at the same time it remains curious, which is at once adaptable and insistent, valuing openness, honesty and courtesy before any private interests.

This mandate is more than a mere pious hope. It represents a condition necessary for free enquiry, which is the University's life blood. Its fulfillment depends upon the well being of that relationship whose parties define one another's roles as teacher and student, based on differences in expertise, knowledge and experience, though broadened 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 both the teacher and student, not as they belong to administrative or professional roles in the University, but as they co-operate in all phases of the teaching and learning relationship.

- This co-operation is threatened when teacher or student facilitates 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 malpractice or even mischievous disruption is not allowed to threaten the educational process.

These are means to which teacher and student necessarily share a common interest as well as common responsibilities.

B. Offences

The University and its members have a responsibility to ensure that a climate which might encourage, or conditions which might enable, cheating, misrepresentation or unfairness not be tolerated. To this end all must acknowledge that seeking credit or other advantages by fraud or misrepresentation, or seeking to disadvantage others by disruptive behaviour is unacceptable, as is any dishonesty or unfairness in dealing with the work or record of a student.

Wherein this Code an offence is described as depending on "knowing", the offence shall likewise be deemed to have been committed if the person ought reasonably to have known.

B1. 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 use, circulate or make use of any such 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 impersonate another person, or to have another person impersonate, at any examination, term test or in connection with any other form of academic work;
3. When a group is found guilty of an offence under this Code, each officer, director or agent of the group, being a member of the University, who directed, authorised or participated in the commission of the offence is liable to and guilty of the offence and is liable upon conviction to the sanctions provided for the offence.

4. If after such discussion, the instructor believes that an academic offence has been committed by the student, or if the student fails or neglects 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 [Vice-Principal and Vice-Dean]. See also Section C.1(b.1).

5. When the dean [Vice-Principal and Vice-Dean] or the department chair, as the case may be, has been so informed, he or she shall notify the student in writing accordingly, provide him or her with a copy of the Code and subsequently afford the student an opportunity for discussion of the matter. In the case of the dean [Vice-Principal and Vice-Dean] being informed, the chair of the department and the instructor shall be invited by the dean [Vice-Principal and Vice-Dean] to be present at the meeting with the student. The dean [Vice-Principal and Vice-Dean] shall conduct the interview.

6. Before proceeding with the meeting, the dean [Vice-Principal and Vice-Dean] shall inform the student that he or she is entitled to seek advice, or to be accompanied by counsel at the meeting, before making, and is not obliged to make, any statement or admission, but shall warn that if he or she makes any statement or admission in the meeting, it may be used or receivable in evidence against the student in the hearing of any charge with respect to the alleged offence in question. The dean [Vice-Principal and Vice-Dean] shall also advise the student, without further comment or discussion, of the sanctions that may be imposed under Section C.1(b). And that the dean [Vice-Principal and Vice-Dean] is not obliged to impose a sanction but may, if so requested by the student, or if the student makes such a request, impose the sanction in question.

Section C.1 - Divisional Procedures

NOTE: Where a student commits an offence, the faculty in which the student is registered has responsibility over the student in the matter. In the case of Scarborough and Erindale Colleges, the college is deemed to be the faculty.

1. No hearing within the meaning of Section 2 of the Statutory Powers Procedure Act is required for the purposes of, or in connection with, any of the discussions, meetings and determinations referred to in Section C.1(a), and such discussions, meetings and determinations are not proceedings of the Tribunal.

2. Where an instructor has reasonable grounds to believe that an academic offence has been committed by a student, the instructor shall inform the student immediately after learning of the act or conduct complained of, giving reasons, and invite the student to discuss the matter. Nothing in the Code or in such a discussion may be used or receivable in evidence against the student.

3. If after such discussion, the instructor is satisfied that no academic offence has been committed, he or she shall notify the student and no further action shall be taken in the matter by the instructor, unless fresh evidence comes to the attention of the instructor which case he or she may again proceed in accordance with subsection 2.
7. If the dean (Vice-Principal and Vice-Dean), on the advice of the department chair and the instructor, or if the department chair, on the advice of the instructor, subsequently decides that no academic offence has been committed and that no further action in the matter is required, the student shall be so informed in writing and the student's work shall be accepted for normal evaluation or, if the student was prevented from withdrawing from the course by the withdrawal date, he or she shall be allowed to do so. Thereafter, the matter shall not be introduced into evidence at a Tribunal hearing for another offence.

8. If the student admits the alleged offence, the dean (Vice-Principal and Vice-Dean) or the department chair may either impose the sanctions that he or she considers appropriate under Section C.1(b) or refer the matter to the dean (Vice-Principal and Vice-Dean) or Provost, as the case may be, and in either event shall inform the student in writing accordingly. No further action in the matter shall be taken by the instructor, the department chair or the dean (Vice-Principal and Vice-Dean) if the dean (Vice-Principal and Vice-Dean) imposes a sanction.

9. If the student is dissatisfied with a sanction imposed by the department chair or the dean (Vice-Principal and Vice-Dean), as the case may be, the student may refer the matter to the dean (Vice-Principal and Vice-Dean) or Provost, as the case may be, for consideration.

10. If the student does not admit the alleged offence, the dean (Vice-Principal and Vice-Dean) may, after consultation with the instructor and the department chair, refer the matter to the Provost by a charge against the student. If the Provost agrees to lay a charge, the case shall then proceed to a Trial Division of the Tribunal.

11. Normally, decalogue procedures will not be examined in a hearing before the Tribunal. A failure to comply with the procedures referred to in this Section, or any defect or irregularity in such procedures, shall not invalidate subsequent proceedings of or before the Tribunal, unless the chair of the hearing considers that such failure, defect or irregularity resulted in a substantial wrong, detriment or prejudice to the accused. The chair will determine at the opening of the hearing whether there is to be any objection to an alleged defect, failure or irregularity.

12. No degree, diploma or certificate of the University shall be conferred or awarded, nor shall a student be allowed to withdraw from a course from the time of the alleged offence until the final disposition of the accusation. However, a student shall be permitted to use University facilities while a decision is pending, unless there are valid reasons for the dean (Vice-Principal and Vice-Dean) to bar him or her from a facility. When or at any time after an accusation has been reported to the dean (Vice-Principal and Vice-Dean), he or she may cause a notation to be recorded on the student's academic record and transcript, until the final disposition of the accusation, so that the standing in a course and/or the student's academic status is under review. A student upon whom a sanction has been imposed by the dean (Vice-Principal and Vice-Dean) or the department chair under Section C.1(b) or who has been convicted by the Tribunal shall not be allowed to withdraw from a course so as to avoid the sanction imposed.

13. A record of cases disposed of under Section C.1(a) or (b) of the sanctions imposed shall be kept in the academic unit concerned and may be referred to by the dean (Vice-Principal and Vice-Dean) in connection with a decision to prosecute, or by the prosecution in making representations as to the sanction to be imposed by the Tribunal, for any subsequent offences 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 (Vice-Principal and Vice-Dean) to the Secretary of the Tribunal in the Provost's annual report to the Academic Board. The dean (Vice-Principal and Vice-Dean) may contact the Secretary of the Tribunal for advice or for information on cases disposed of under Section C.1(b) hereof.

14. Where a procctor or invigilator, who is not a faculty member, has reason to believe that an academic offence has been committed, he or she may report the matter to the student's dean (Vice-Principal and Vice-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.

15. In the case of alleged offences not covered by the above procedures and not involving the submission of academic work, such as those concerning forgery or tampering, 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) Divisonal Sanctions

1. In an assignment worth 10 percent or less of the final grade, the department chair may deal with the matter if:
   (a) the student admits guilt; and
   (b) the assignment of a penalty is limited to at most a mark of zero for the piece of work.

2. If the student does not admit guilt, or if the department chair chooses, the matter shall be brought before the dean (Vice-Principal and Vice-Dean).

3. One or more of the following sanctions may be imposed by the dean (Vice-Principal and Vice-Dean): (a) an oral and/or written reprimand; (b) an oral and/or written reprimand and, with the permission of the instructor, the re-submission of the piece of academic work, in respect of which the offence was committed; (c) assignment of a grade of zero or failure for the piece of academic work in respect of which the offence was committed; (d) assignment of a grade of zero or failure for the piece of academic work in respect of which the offence was committed; (e) assignment of a grade of zero or failure for the piece of academic work in respect of which the offence was committed; (f) a monetary fine to cover the costs of replacing damaged property or missing supplies in respect of which the offence was committed; (g) assignment of a grade of zero or a failure for the course in respect of which the offence was committed; (h) suspension from attendance in a course or courses, a program, an academic division or unit, or the University for a period of not more than twelve months. Where a student has not completed a course or courses in respect of which an offence has not been committed, withdrawal from the course or courses without academic penalty shall be allowed.

3. The dean (Vice-Principal and Vice-Dean) shall have the power to record any sanction imposed on the student's academic record and transcript for such length of time as he or she considers appropriate. However, the sanction of suspension or a notation specifying academic misconduct as the reason for a grade of zero for a course shall normally be recorded for a period of five years.

4. The Provost shall, from time to time, indicate appropriate sanctions for certain offenses. These guidelines shall be sent for information to the Academic Board and attached to the Code as Appendix "C".

C.3(b) Tribunal Sanctions

1. 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 re-submission of the piece of academic work, in respect of which the offence was committed; (c) assignment of a grade of zero or failure for the piece of academic work in respect of which the offence was committed; (d) assignment of a grade of zero or failure for the piece of academic work in respect of which the offence was committed; (e) assignment of a grade of zero or failure for the piece of academic work in respect of which the offence was committed; (f) denial of privileges to use any facility of the University including library and computer facilities;
Code of Student Conduct

(f) a monetary fine to cover the costs of replacing damaged property or
misused 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 up to five years 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
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.

(j) cancellation of academic

standing or academic credits

obtained by any former

student who, while enrolled,

committed any offence which
directed 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
do not have been granted.

2. 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.

3. 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.

NOTE: The University of Toronto at
ScARBOROUGH has a policy on the use
of calculators in tests and examinations.
Students should consult with instructors
about whether the use of calculators is
permissible in their course and if so which
models are approved. The use of an
unauthorized calculator may be treated as
an academic offence.

Code of Student Conduct

A. Preface

1. The University of Toronto is a large
community of teaching staff, administrative
staff and students, involved in each other's
research, learning and other activities. Student
members of the University are

affiliates in a division of the
University for the period of their
registration in the academic program in
which they have been admitted and as
such assume the responsibilities and
obligations of such registrants.

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
designed to affect the academic
integrity of the University's
community.

3. The University sponsors, encourages or
accepts many non-academic activities of its
members, both on its

campus and away from them. These
tivities, although generally
separate from the defined requirements of
students' academic programs, are
valuable and important part of the life of
the University and of its students.

4. The University does not stand as a
parent to its student members, that
is, it has no general responsibility for the
moral and social behaviour of its
students, as if they were its wards.
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. First 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 entity to
which they belong. Provisions for
non-academic discipline should not
attempt to shelter students from their
civil responsibilities nor add
unnecessarily to these
responsibilities. Conduct that
constitutes a breach of the Criminal
Code or other statutes, or that would
cause a student's record to rise to a civil or
civil court should be dealt with by the
appropriate criminal or civil courts. 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 statutes.

7. Nothing in this Code shall be

construed to prohibit peaceful
assemblies and demonstrations,
lawful picketing, or to inhibit
decision of peacemakers as defined in the
University.

8. In this Code, the word "premises"
includes lands, buildings and grounds.

9. In this Code, "student" means a
member of the University

(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) registered in any academic course

which entitles the member to the
use of a University library,
library materials, library
resources, computer facility or

data set; and/or

(iii) who is a post-doctoral fellow.

10. In the following, 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 their facilities, faculties,
programs, services, activities,
students and other members of the
federated or affiliated institution.

11. 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
Villa University are included.

12. This Code is concerned with conduct
that the University considers
unacceptable. Unacceptable student
members of the University, the

procedures and sanctions described

herself shall apply. In the case of other members of the University, such conduct is to be dealt with in accordance with the established policy, procedures and agreements that apply to the members.

B. Offences

The following offences constitute conduct that shall be deemed to be offences under this Code, when committed by a student of the University of Toronto, provided that such conduct:

1) has not been dealt with as failure to meet standards of professional conduct as required by a college, faculty or school;

2) is not specifically assigned to the jurisdiction of the University Tribunal, as in the case of offences described in the Code of Behaviour on Academic Matters, or to another disciplinary body within the University of Toronto, as in the case of sexual harassment as described in the Policy and Procedures: Sexual Harassment; and

ii) except as otherwise provided herein, occurs on premises of the University of Toronto or elsewhere in the course of activities sponsored by the University of Toronto or by any of its divisions.

1. Offences against persons

a) No person shall assault another person sexually or threaten any other person with bodily harm, or knowingly cause any other person to fear bodily harm.

b) No person shall otherwise assault another person, threaten any other person with bodily harm, or knowingly cause any other person to fear bodily harm.

c) No person shall knowingly create a condition that unreasonably endangers the health or safety of other persons.

2. 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.

3. Offences against authority

a) No person shall knowingly obstruct, mislead, misstate, or cause any information to be false in any written or electronic form.

b) No person shall knowingly cause any information to be false in any written or electronic form.

c) No person shall knowingly cause any information to be false in any written or electronic form.
8. Unauthorized possession or use of firearms or ammunition

No person other than a peace officer or a member of the Caribbean Forces acting in the course of duty shall possess or use any firearm or ammunition on the premises of the University 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 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, Administration and Human Resources 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. Hearing Procedures

1. Whenever possible and appropriate, informal resolution and mediation shall be used to resolve issues of individual behaviour before resort is made to formal disciplinary procedures.

2. An Investigating Officer, who may be a student, shall be appointed for a term of up to three years by the principal, dean or any other person called “head” of each faculty, college or school in the University, and shall be registered (hereinafter called “division”), after consultation with the elected student body leaders of each division, to investigate complaints made against student members of that division. The Investigating Officer shall hold office until their successors are appointed.

3. A Hearing Officer, who may be a student, shall be appointed for a term of 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.

4. If the Investigating Officer is, for any reason, unable to conduct an investigation, then the head of the division shall appoint another person as Investigating Officer for the particular case. If the Hearing Officer is, for any reason, unable to chair the hearing of any case, then the senior chair of the University Tribunal shall appoint another person as Hearing Officer for the particular case.

5. Where the head of the division has reason to believe that a non-academic offence as defined in this Code may have been committed by a student member or members of the division, the Investigating Officer will conduct an investigation into the case. After completing the investigation, the Investigating Officer shall report to the investigation to the head of the division. If the head of the division concludes, on the basis of this report, that the student or students may have committed an offence under the Code of Student Conduct, the head of the division shall have the discretion to request that a hearing take place to determine whether the student or students have committed the offence alleged.

6. The hearing will be chaired by the Hearing Officer. The case will be presented by the Investigating Officer, who may be assisted and represented by legal counsel. If the right to a hearing is waived, or after a hearing, the Hearing Officer will rule on whether the student or students have committed the offence alleged and may impose one or more sanctions as listed below. The accused student or students may be assisted and represented by another person, who may be legal counsel.

7. General decisions of bodies acting under authority from the council of a division to hear cases arising out of residence codes of conduct may be made by the Hearing Officer of the division, where provision therefore has been made by the council of the division.

8. Appeals against the decision of the Hearing Officer may be made to the Discipline Appeals Board of the Governing Council.

9. Where the head of a division has reason to believe that a non-academic offence may have been committed by the student members and students from another division or divisions, the head may consult with the head of the other division or divisions involved and may agree that some or all of the cases will be investigated jointly by the Investigating Officers of the divisions of the students involved and that some or all of the cases will be heard together by the Hearing Officer of one of the divisions agreed upon by the heads and presented by one of the Investigating Officers agreed upon by the heads.

D. 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 $100
4. Requirement of public service work not to exceed 50 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:

6. Suspension from registration in any course or program of a division or divisions for a period of up to one year.

7. Recommendation for expulsion from the University
## IMPORTANT TOPICS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admitted on Condition</td>
<td>228</td>
</tr>
<tr>
<td>Admitted to Part Time</td>
<td>223</td>
</tr>
<tr>
<td>Appeals</td>
<td>246</td>
</tr>
<tr>
<td>Checking of Marks</td>
<td>244</td>
</tr>
<tr>
<td>Course Load</td>
<td>223</td>
</tr>
<tr>
<td>Course Overlap</td>
<td>15</td>
</tr>
<tr>
<td>Degree Requirements</td>
<td>12</td>
</tr>
<tr>
<td>Exam Conflicts</td>
<td>242</td>
</tr>
<tr>
<td>Exclusions</td>
<td>222</td>
</tr>
<tr>
<td>Grading Scheme</td>
<td>227</td>
</tr>
<tr>
<td>High Distinction</td>
<td>218</td>
</tr>
<tr>
<td>Letters of Permission</td>
<td>229</td>
</tr>
<tr>
<td>Overall Limits</td>
<td>228</td>
</tr>
<tr>
<td>Overall Standing</td>
<td>227</td>
</tr>
<tr>
<td>Petition Deadlines</td>
<td>246</td>
</tr>
<tr>
<td>Petitions</td>
<td>243</td>
</tr>
<tr>
<td>Probation and Suspension</td>
<td>228</td>
</tr>
<tr>
<td>Programme Regulations</td>
<td>15</td>
</tr>
<tr>
<td>Propaedeutic Rule</td>
<td>223</td>
</tr>
<tr>
<td>Retaking of Courses</td>
<td>223</td>
</tr>
<tr>
<td>Scarborough Programmes Only</td>
<td>224</td>
</tr>
<tr>
<td>Second Degrees</td>
<td>13</td>
</tr>
<tr>
<td>Special Students</td>
<td>295</td>
</tr>
<tr>
<td>Study Elsewhere</td>
<td>230</td>
</tr>
<tr>
<td>Transfer Students</td>
<td>13</td>
</tr>
<tr>
<td>Upgrading 3 Year Degrees</td>
<td>15</td>
</tr>
<tr>
<td>Withdrawal from Session</td>
<td>226</td>
</tr>
</tbody>
</table>

## CALENDAR 1998

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td></td>
</tr>
<tr>
<td>1 2 3</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8 9 10</td>
<td>8 9 10 11 12 13 14</td>
<td>8 9 10 11 12 13 14</td>
<td>8 9 10 11 12 13 14</td>
<td></td>
</tr>
<tr>
<td>15 16 17</td>
<td>15 16 17 18 19 20 21</td>
<td>15 16 17 18 19 20 21</td>
<td>15 16 17 18 19 20 21</td>
<td></td>
</tr>
<tr>
<td>29 30 31</td>
<td>29 30 31</td>
<td>29 30 31</td>
<td>29 30 31</td>
<td></td>
</tr>
</tbody>
</table>

## CALENDAR 1999

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td></td>
</tr>
<tr>
<td>1 2 3</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8 9 10</td>
<td>8 9 10 11 12 13 14</td>
<td>8 9 10 11 12 13 14</td>
<td>8 9 10 11 12 13 14</td>
<td></td>
</tr>
<tr>
<td>15 16 17</td>
<td>15 16 17 18 19 20 21</td>
<td>15 16 17 18 19 20 21</td>
<td>15 16 17 18 19 20 21</td>
<td></td>
</tr>
<tr>
<td>29 30 31</td>
<td>29 30 31</td>
<td>29 30 31</td>
<td>29 30 31</td>
<td></td>
</tr>
</tbody>
</table>