University of Toronto

at Scarborough

Calendar

If somebody would give me about two dozen very old elm trees and about fifty acres of wooded ground and lawns — not too near anywhere and not too far from anywhere — I think I could set up a College that would put all the big universities in the shade.

Stephen Leacock

1999/2000

1265 Military Trail, Scarborough, Ontario, Canada, M1C 1X7
GREETINGS FROM THE PRINCIPAL AND DEAN

It is with great pleasure that I welcome you and returning students to the 1999-2000 academic year. As we prepare to enter the next millennium, the challenges facing society and, as a result, universities and their students are significant and far-reaching. The current pace of technological change, and of growth in knowledge is unprecedented. For those with the preparation to face the challenges, these are exciting and rewarding times. Your university studies will increase your preparedness. The path is not easy but the rewards are great.

As a student at the University of Toronto at Scarborough, you are part of a community dedicated to advancing knowledge in a wide array of fields, dedicated to disseminating that knowledge and its applications to students, other researchers and society, and dedicated to the enhancement and harnessing of technology.

More specifically, you are part of a community that has pioneered the development and use of Information technology. 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 the enhancement of instruction: from the simple posting of assignments to interactive discussion. We currently have three of our large lecture theatres equipped as "smart classrooms" and two portable "smart podiums" 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 (laser) 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).

Professors at U of T at Scarborough are active researchers and scholars and have won many prestigious awards for their contributions to the arts, humanities, sciences and business. We gave to ensure that the knowledge they impart to you is at the leading edge of their disciplines.

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 and Climatology). In addition, Dramatics, Music, Fine Art History and Fine Art Studio have created integrated programmes in Visual and Performing Arts and offer a co-op programme in Arts Management.

These are just some of the ways in which the University of Toronto at Scarborough is able to contribute to your preparations to face a challenging, exciting and rewarding new millennium.

I offer you my very best wishes for a rewarding year of study in our academically rich environment.

Professor Paul Thompson
Principal and Dean
University of Toronto
at Scarborough

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 in a driving campus where over 200 faculty teach more than 700 courses to 5500 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.

1972 saw the opening of the R-wing (with classrooms, office space, a gymnasium, and other space facilities) and the Student Village, a complex of townhouse residences with room for 260 students. In 1985 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 556 students can now be accommodated in residence.

In 1982, the Vincent W. Blades 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 300,000 books and periodicals, thousands of maps, and a media centre with recordings and film art slides. Blades Library, in conjunction with the College's Computer Center, 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 NYSemans Child Care Centre in 1990, and the Leighton Lee Browse 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- and part-time students to complete their degrees at a rate of their own choosing. The College offers the only formal co-operative programme in the University. Currently, Co-operative Programmes are offered in the following areas: Arts Management, Computer Science, Environmental Science, International Development Studies, Management and Management & Economics for Management Studies. In addition, both the Physical Sciences Specialized programmes and the Education of Teachers in French Specialist Programme offer an Early Teacher Preparation 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.

Scarbough 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 world-wide recognition for their research and scholarship. The well appointed research laboratories, the high level of technical services, the relatively small size of the College and the diversity of the faculty favor an ideal environment for intellectual exchange and development.

Scarbrough 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 Scarbrough Centre and the prestigious Wane lecture series have brought such distinguished speakers as Nobel Prize winner and former Prime Minister Lester Pearson, architect Raymond Moriyama, philosopher and theologian Hao Kang, scientist and television personality David Suzuki, union leader Bob White, Assembly of First Nations chief Georges Erasmus, and Israel's Ambassador to Canada Itzhak Zilber, co-founding with Abdullah Aboblini, P.L.O. Ambassador to Greece.
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Important Notices

1 Changes in Subject Focus (Programmes of Study)
   The programmes of study that the Calendar lists and describes are available for the years to
   which the Calendar applies. They may not necessarily be available in later years. If the
   University or the Faculty (School, College) must change the content of programmes of
   study or withdraw them, all reasonably possible advance notice and alternative instruction
   will be given. The University, however, will not be liable for any loss, damages, or other
   expenses that such changes might cause.

2 Changes in Courses/Academic Activities
   For each programme of study offered by the University through the Faculty (School,
   College), the courses necessary to complete the minimum requirements of the programme
   will be made available annually. We must, however, reserve the right otherwise to change
   the content of courses, instructors and instructional assignments, enrolment limitations,
   prerequisites and co-requisites, grading policies, and timetables without prior notice.

3 The Academic Regulations and Policies apply to all students and students that are approved by the Governing Council and which
   must become familiar with the policies. The University

will assume that he or she has done so. The rules and regulations of the Faculty (School,
College) are displayed here. Applicable University policies are either fully displayed here or
listed here.

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 to which they are admitted, and
   to strike a practicable balance between enrolment and available instructional resources.
   Sometimes such a balance cannot be struck and the number of qualified students exceeds
   the instructional resources that we can reasonably make available while at the same time
   maintaining the quality of instruction. In such cases, we must reserve the right to limit
   enrolment in the 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 Person I.D. (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 person I.D. numbers. The University assumes and expects that students
   will protect the confidentiality of their Person I.D.'s.

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 227.

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 1999*

Academic Calendar / Summer Session 1999*

March 15  Last day for new students to apply for admission to the University for the Summer Session for courses beginning in May.
April 12  Good Friday = University closed.
April 12  Summer Session registration begins through ROSI's Line and ROSI's Page (Student Telephone and Web Services).
May 4  Last day for new students to apply for admission to the University for the Summer Session for courses beginning in July.
May 14  Deadline is register in May in June and May to August courses (Section F and Y).
May 17  Classes begin in May to June and May to August courses (Section F and Y).
May 21  University closed.
May 24  Victoria Day = University closed.
May 31  Last day to add May to June and May to August courses (Section F and Y).
June 11  Last day to drop May to June courses (Section F) from academic record and GPA.*
June 30  Deadline to register in July to August courses (Section S).
June 30  Last day of classes in May to June courses (Section F). Last day for submission of term assignments in these courses. Final examinations, if required, will be held in a class period of the last week.
July 1  Canada Day = University closed.
July 2  University closed.
July 5  Classes begin in July to August courses (Section S).
July 9  Last day to add July to August courses (Section S).
July 30  Last day to drop July to August courses (Section S) from academic record and GPA.*
July 30  Last day to confirm intention to graduate at the Fall Convocation.
August 20  Last day of classes in May to August and July to August courses (Section Y and S). Last day for submission of term assignments. Final examinations, if required, will be held in a class period of the last week.
November 23  Deferred examinations from June and August 1999.*
December 13 - 21  Deferred examinations from June and August 1999.*

* 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 / Fall & Winter Sessions 1999/2000*

1999 - FALL SESSION
April 1  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.
June 1  Last day for new students to apply for admission to the University for part-time studies beginning in September.
June 10  Spring Convocation.
June 30  Fall/Winter Session registration using ROSI’s Line and ROSI’s Page (Student Telephone and Web Services) begins.
September 6  Labour Day = University closed.
September 13  Classes begin in Fall Session courses (Section F) & Fall/Winter Session courses (Section Y).
September 24  Last day to add Fall courses (Section F) & Fall/Winter Session courses (Section Y).
October 11  Thanksgiving Day = University closed.
November 5  Last day to drop Fall Session courses (Section F) from academic record and GPA.*
November 13  Christmas Examination Schedule published.
December 6  Last day of classes in the Fall Session. Last day for submission of term assignments in Fall Session courses (Section F).
December 7 - 10  Study Break (Scarborough).
December 13 - 21  U of T Scarborough students who are registered in St. George courses will continue to have classes through this period.
December 22 - January 3  Christmas break = University closed.

2000 - WINTER SESSION
January 3  Classes resume for Fall/Winter Session courses (Section Y).
January 3  Classes begin in Winter Session courses (Section S).
January 14  Last day to add Winter Session courses (Section S).
February 11  Last day to drop Fall/Winter Session courses (Section Y) from academic record and GPA.*
February 15  Last day to confirm intention to graduate at the Spring Convocation...
February 14 - 18  Reading Week = No classes held.
March 3  Last day to drop Winter Session courses (Section S) from academic record and GPA.*
March 15  Final Examination Schedule published.
March 31  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 Fall/Winter (Section Y) and Winter Session courses (Section S).
April 3 - 7  Study Break (Scarborough).
April 5  Winter Session courses for U of T Scarborough students who are registered in St. George courses will continue to have classes through this period.
April 21  Good Friday = University closed.
April 29 - May 1  Final examination period.
April 28 - May 3  Deferred examinations from December 1999.*
August 16 - 20  Deferred examinations from April/May 2000.*

* 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.
government to assist with fees for low-income households. As there is very long waiting list for housing students are advised to apply well in advance of the time child/ren is/are needed. A library for U of T students is also available.

There is a state of the art building which officially opened October 11, 1990, this non-profit centre is managed by a partnership between the government and the University of Toronto. The Centre's philosophy is that a warm, secure, and loving environment is provided to all to foster the development of each child's self-esteem, independence and self-control, while encouraging cooperation, negotiation, consideration and empathy for others.

The sound of the chickadee 'Wishiwashes', also means 'My little brother or sister' in the Ojibwe language. This folktale reminds us all to take good care of our little ones.

For more information about the Centre, or to arrange for a visit, please contact the Director, Ms. Kathleen McElroy at (416) 877-6524.

Student Residences
The Student Villages are located in attractive tree-lined areas close to the Academic buildings. There are 114 townhouses in two villages, accommodating 534 people, with four or six students in each house. There are ten bedrooms in each house which are wheelchair accessible.

The houses are self-contained with study-bedrooms, bathrooms, kitchens and living/dining room. Each house is fully furnished, with one or two area beds and sufficient storage. Each house has a single bedrm. Houses are assigned on a first-come, first-served basis. There is a phone available in each bedroom in the living room. You can use a laundry room. There is a telephone jack in each bedroom and a 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, cards, board games, etc., or simply relax, sit by the fireplace and chat with friends. Call the student Residences office for events are held here and the Village Centre.

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

Our mission is to provide residence students with a "living and learning" environment that supports the academic mission of the University of Toronto at Scarborough while ensuring students with a variety of personal development opportunities to enhance their university experience both inside and outside of the classroom. Our residence life is designed to assist students with the transition to university and support their success throughout their entire university experience. We strive in fostering a learning community committed to a high standard of mutual respect and understanding, towards its members in spite of any differences of opinion, culture, religion, disability or sexual orientation.

Generally, we can accommodate all new student, local and part-time. Accommodation is available year round.

Please telephone for general enquiries:
(416) 877-7355

Sexual Harassment Education, Counselling and Complaint Office
The University of Toronto does not tolerate any form of sexual harassment and is actively endeavoring to provide an environment free of it. All forms of sexual harassment, from verbal abuse to inappropriate touching in 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 persons who are the object of unwanted sexual contact and to those who are alleged to have committed any form of sexual assault. The Sexual Harassment Officer is not a consultant or mediator in any complaint. The Sexual Harassment Officer does not have a right to see any details of the complaint.

The services of the Sexual Harassment Office are available to all members of the University. All complaints and requests for information will be kept completely confidential unless the individual involved agrees 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. The appointment, information, to arrange an appointment or to file a complaint, is held at the Scarborough Campus, University of Toronto, 455 Spadina Avenue (for College), Room 302, Toronto, Ontario, M5S 3B7 (telephone: (416) 978-3930).

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

Services Available for Students
- arrangements for alternate tests or exams
- notetakers
- provision of assistive devices and adaptive equipment and assessment of needs
- adaptive materials (large print/taped texts)
- alternative communication (i.e. sign language interpreter)
- accessible test and course locations
- personnel and career counselling relating to the individual's disability
- access to a registered psychologist for psycho-educational assessments.

The Co-ordinator is available at (W) 877-2575, (F) 877-7569, (fax) 877-7568, email: ability@scruz.utoronto.ca. We also have a page on the World Wide Web: (www.scruz.utoronto.ca/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 yet take a break from the pressures of studies. "International", ISC's work or study abroad resource centre, provides information and counselling on overseas programs. ISC also offers special services to international students: pre-arrival information (text with the admission offer), reception service and orientation events, English language program, Newsletter and advice on non-academic concerns. Contact: ISC, 33 St. George Street, Toronto, Ontario, M5S 2B3, Telephone: (416) 978-2564.

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 appropriate University officials. The Ombudsperson is independent of all administrative structures of the University, and is accessible only to the Governing Council.

For information, advice, or assistance, contact the Office of the University Ombudsperson, University of Toronto, 18 Hart House Circle, Toronto, Ontario M5S 1A1 (Telephone: (416) 978-4874).
University of Toronto at Scarborough students may earn a Bachelor of Arts, a Bachelor of Science or a Bachelor of Commerce degree. Students may elect to receive a B.A. or a B.Sc. degree after having completed the requirements for a three-year degree or an Honours (four-year) degree. The B.Com. may only be completed as part of a four-year degree. Students in their graduating year who intend to take part in the next Convocation must notify the Registrar's Office of their intention either through ROSt's Line or ROSt's Page or on a confirmation of graduation form by February 15 for graduation at the Spring Convocation or by July 30 for graduation at the Fall Convocation.

Degrees are conferred at university convocations, held twice annually: the Spring Convocation held in June and the Fall Convocation held late in November. Students who have confirmed their intention to graduate will be mailed complete information about the time and arrangements in March for the June Convocation and in October for the Fall Convocation.

Degree requirements

In the context of the degree requirements, the word "course" refers to one full course or two half-courses.

Students who first registered at Scarborough before the 1989 Summer Session may, if they wish, complete the degree requirements outlined in the 1990/91 Calendar. Students who first registered at the College before the 1989 Summer Session may, if they wish, complete the degree requirements outlined in the 1990/91 Calendar.

Three-year degree

To qualify for a three-year degree, students must:

1. pass at least fifteen courses,
2. complete the requirements of a Major Programme or two Minor Programmes,
3. earn a cumulative grade point average of at least 1.60.

Honours degree

To qualify for a four-year degree, students must:

1. pass at least twenty courses,
2. complete (a) a Specialist Programme, or (b) two Major Programmes, or (c) three Minor Programmes, or (d) two Minor Programmes and a Major Programme.

Programmes and a Major Programme

3. earn a cumulative grade point average of at least 1.60.

Bachelor of Commerce degree

1. pass at least twenty courses,
2. complete the Specialist Programme in Management & Economics,
3. earn a cumulative grade point average of at least 1.60.

B.A., B.Sc., and B.Com. degrees

The type of degree students receive is determined by the Programme completed. (See the list of Programmes on page 100 for the type of degree towards which the Programme leads.)

Where students use a combination of 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 Major Programmes to satisfy the requirements of an Honours degree, in order to receive a B.Sc., one must be in the sciences.

For students completing the requirements outlined in the 1990/91 or the 1991/92 Calendar, the type of degree is determined by the number of Science credits completed.

Graduation with high distinction and with distinction

University of Toronto at Scarborough students who have completed a degree as outlined in the 1990/91 Calendar, with or without a Major Programme or the University of Toronto at Scarborough can obtain high distinction in the degree if they have completed a minimum of 60 credits with a cumulative grade point average of 3.750 or better and will graduate with distinction if their cumulative grade point average is between 3.20 and 3.49. Other students with a cumulative grade point average of 3.20 or better will be considered on an individual basis.

Transfer Students

Students transferring to the University of Toronto at Scarborough will be required to complete at least half of their credits and half of their programme requirements as University of Toronto at Scarborough students. Students transferring from other institutions of the University of Toronto are exempt from this requirement.

Upgrading three-year degrees

Students who have graduated with a three-year degree may still choose to complete the requirements of the Honours degree. A second degree will not be conferred but completion of the Honours degree requirements will be noted on the student's transcript. Students who upgrade a three-year degree to an Honours degree may exchange the diploma for an Honours diploma of the same kind, e.g. a three-year B.A. may only be replaced by an Honours B.A. diploma.

Students who have received a three-year degree and are in the final year of the Honours degree should notify the Registrar's Office through ROSt's Line or ROSt's Page or in means of a confirmation of graduation form by February 15 if they are completing the requirements in the Fall/Winter Sessions and by August 15 if they are completing the requirements in the Summer Session.

"Second degree" requirements

Students beginning a second degree are normally expected from first year of the degree requirements to be drawn from a total of 30 credits, regardless of the number of previous degrees.

Students who hold a B.A., B.Com. or B.Sc. from the University of Toronto will be considered for admission to a second degree programme only of a different type (i.e. students with a B.A. degree may only complete a B.Com. or B.Sc. degree). Application for admission to a second degree programme is made through the Assistant Registrar Admissions.

Special students

"Special students" are students registered in degree courses at the University of Toronto at Scarborough.

(a) who are not proceeding towards a University of Toronto degree, or (b) who have been admitted on an interim basis and who must meet certain conditions before admission as regular degree students. Except for regulations concerning degree requirements and regulations where special students are specifically exempted, all regulations apply equally to special students and degree students. Where students have been admitted on an interim basis as special students, the conditions of their admission supersede the normal regulations governing academic status.
Programmes of Study (Subject POSTs)

Students must select and register in a programme or programmes following the summer in which they receive their fourth credit. Note that some programmes have limited enrollment. 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 limited area defined as 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 as 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 six to eight courses.

Minor Programmes

3. Minor Programmes are designed to provide study in a specific area for students who are majoring in another coherent programme of study in a different area of the curriculum. A Minor Programme may be taken as part of either a three-year or an Honours degree and will consist of five or six 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 be offered only at St. George Campus and should form a logical programme. The student should offer a rationale for the proposal. Proposals should be made to the Vice-Principal and Vice-Dean. Proposals must be submitted at least eight months prior to the session in which they are to be offered.

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.

2. 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 Programme they may later choose to follow. Supervisors, instructors in A-level courses, and academic counsellors may be consulted for assistance. Students who have been registered in a Programme should consult annually with the supervisors of their Programme to ensure that their course selection will meet Programme requirements.

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

Programme transfer

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 notify the Registrar's Office of the change through ROSI's Letter or ROSI's Page or by any other official selection form to the Registrar's Office.

Certification of completion of Programmes

Completion of a Programme is certified when the degree is conferred. Students in their final year who have fulfilled their intention to graduate would be considered for or who have confirmed that they are about to complete an appropriate degree do not have to request certification of completion of their Programme.

When Programme requirements are changed, students may elect to satisfy the requirements to affect when the student first completed courses at the College or subsequent requirements if the student finds them more favourable. However, the College reserves the right to require substitution for courses which are no longer offered.

Regulations concerning Programmes of study

1. Students may register in no more than three Programmes at any one time (excluding no more than two Majors and/or Specialist(s)) and may receive certification of completion of no more than three Programmes.

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

3. No overlapping courses are permitted between a Minor Programme and any other Programme.

4. When a student is registered in two Major Programmes with overlapping course requirements, a student may not use more than two courses to fulfill the requirements of both Programmes. In cases where two Programmes have an overlap of more than two courses, students must substitute additional courses, approved in advance by either supervisor, to reduce the overlap to two or fewer. Such substitutions should be discussed with the appropriate supervisor when the student first registers in the overlapping Programmes.

5. When a student completes the requirements of a Minor Programme and subsequently chooses to complete a Major or Specialist Programme the student may use the courses already accredited to the Minor Programme to fulfill the requirements of the Major or Specialist Programme. Upon successful completion of the additional requirements, any previous certification of the Minor Programme will be superseded on the student's transcript by certification of the Major or Specialist Programme.

6. When a student completes the requirements of a Major Programme and subsequently chooses to complete a Specialist Programme, the student may use the courses already accredited to the Major Programme to fulfill the requirements of the Specialist Programme. Upon successful completion of the additional requirements, any previous certification of the Major Programme will be superseded on the student's transcript by certification of the Specialist Programme.

Students in programmes in which there are special circumstances concerning Programme requirements may be permitted to substitute for courses which are no more than two overlapping courses (see above); and in Programme requirements, courses taken on other campuses of this University or at other Universities, and pass concurrent substitutions or other modifications of Programme requirements where they deem them appropriate. When special arrangements are made, students should ask their supervisors to record them on a programme exceptions form.

Students should note that certain Programmes will require them to take some of their courses on the St. George Campus.

Students intending to enroll in any course on the St. George Campus which they intend covering towards their programme should consult with their Programme Supervisor first.

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

Registration in Programmes which have been withdrawn

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

Students currently registered in programmes that have been withdrawn will be able to complete their programmes within a specified time frame. The College will either offer the courses necessary for them to complete programme requirements or will make other appropriate arrangements such as course substitutions. Students should consult with their relevant Supervisor or the Chair of the Division in which the programme was offered.
Subject Posts (Programmes of Study) and Course Descriptions

The following Programmes are offered at University of Toronto at Scarborough. All Specialist and Major Programmes in Economics for Management Studies, Management, All Co-operative Programmes, Computer Science, 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, admission to other Programmes may have to be limited at a future date. In the event of under-enrolment, some of those 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
- 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.
- Management & Economics - B.Com.
- Management & Language (French) - B.A.
- Mathematics - B.Sc.
- Mathematics & Statistics - B.Sc.
- Neuroscience - B.Sc.
- Physical & Mathematical Sciences - B.Sc.
- Physics and Its Applications - B.Sc.
- Political Science - B.A.
- Political Science and Economics for Management Studies - B.A.
- Psychology* - B.Sc.
- Sociology* - B.A.
- Visual & Performing Arts - B.A.

Major Programmes - Type of Degree

- Anthropology* - B.A. / B.Sc.
- Art History - B.A.
- Biochemistry - B.Sc.
- Biological Sciences - B.Sc.
- Chemistry - B.Sc.
- Cognitive Science - B.Sc.
- Computer Science - B.Sc.
- Drama* - B.A.
- Economics for Management Studies* - B.A.
18 Programme of Study (Subject POS) and Course Descriptions

English* - B.A.
Environmental Science - B.Sc.
French - B.A.
History* - B.A.
International Development Studies - B.A. / B.Sc.
Linguistics - B.A.
Mathematics Sciences - B.Sc.
Music History - B.A.
Neuroscience - B.Sc.
Philosophy - B.A.
Physical Sciences - B.Sc.
Political Science - B.A.
Psychology* - B.Sc.
Society and Environment - B.A.
Sociology - B.A.
Studio - B.A.
Women's Studies - 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 academic, practical experience with regular university studies. All Co-operative Programmes are Specialized Programmes and may be taken only as part of a four-year degree. Most Cooperative Programmes, however, will require up to five years to complete because of the time required for the work placements.

Minor Programmes ** - Type of Degree
Anthropology - B.A.
Art History - B.A.
Biological Sciences - B.Sc.
Classical Studies - B.A.
Dance - B.A.
Economics for Management Studies - B.A.
English Literature - B.A.
Environmental Science - B.Sc.
French - B.A.
French for Francophone Students - B.A.
Geography - B.A.
History - B.A.
International Development Studies - B.A.
Linguistics - B.A.
Music History - B.A.
Philosophy - B.A.
Political Sciences - B.A.
Sociology - B.A.

Certification Programmes Business

* These are Programmes which the College makes available to students who are able to study in the evening only.
** Where students use a combination of these programmes to satisfy the requirements of an Honours degree, in order to receive a B.A., 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.

Anthropology (SLAR02)

Faculty List
T. F. S. McKeen, B.A. (McGill), M.A., Ph.D. (Harvard), MSC, Professor Emeritus
J. Boddy, B.A. (McGill), M.A. (Calgary), Ph.D. (UBC), Professor
F. D. Butter, B.Sc., M.A. (Ottawa), Ph.D. (U of T), Professor
M. L. Lamb, B.A. (McGill), M.A., Ph.D. (Michigan), Professor
R. W. Shirley, M.A. (Stanford), Ph.D. (Columbia), Professor
G. S. Gillison, B.A. (McGill), Ph.D. (Columbia), Associate Professor
M. Latta, B.A. (Kansai), M.A., Ph.D. (Toronto), Associate Professor
L. Sawchuk, B.A., M.A. (McMaster), Ph.D. (Toronto), Associate Professor

Discipline Representative / Supervisor of Students: M. Lambeth (367-7332)

Anthropology is the study of humankind, dealing with the origins, development and nature of human beings 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 its intimate links with the physical and natural sciences. Anthropology examines societies today and in the past, both complex civilizations and relatively small-scale, 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 variety of its subject matter, Anthropology is traditionally divided into four sub-fields: Social-Cultural Anthropology, Archaeology, Physical Anthropology and Ethnobiology. 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 contact 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.Sc. Specialist are that at least half of the twelve full-course equivalents in Anthropology should be courses with science credits. The requirements for a B.A. Major are that at least four of the six full-course equivalents in Anthropology should be courses with science credits. 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: ANTH15, ANTH2, ANTH25, ANTH54, ANTH12, ANTH14, ANTH25, ANTH35, ANTH54, ANTH15, ANTH15, ANTH25, ANTH54, ANTH17, ANTH25, ANTH54, ANTH15, ANTH25, ANTH54, ANTH17, ANTH25, ANTH54. The following courses may also be used to fulfill the B.A. requirements for students majoring in Anthropology in the Scientific Area of Anthropology: ANTH10, ANTH20, ANTH12, ANTH22 and ANTH25.

SPECIALIST PROGRAMME IN ANTHROPOLOGY

The Specialist Programme in Anthropology is intended to provide the professional oriented student with background preparation of sufficient breadth and depth and formalized training in the graduate level. It is also designed to offer interested students a course structure of sufficient flexibility to follow their intellectual interests into the diverse yet holistic perspective on the human phenomena provided by Anthropology. All students are required to consult with the Supervisor of Studies for the selection of a course sequence appropriate to their interests and objectives.
The Programme requires completion of twelve full-course equivalents, no less than ten of which will be in Anthropology. Students must complete at 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. ANTH01Y Introduction to Anthropology
2. At least two full-course equivalents from the following:
   a) ANTH15Y Biological Anthropology or ANTH22Y Primate Behaviour
   b) ANTH20Y Social and Cultural Anthropology
   c) ANTH11Y Introduction to World Prehistory or ANTH38Y First Nations of North America in Archaeological Perspective
   d) Three 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 encouraged to take at least one course in field methods, such as ANTH12 and CNG. In exceptional circumstances supervised research and reading courses are available at the C-, ANTH20Y, ANTH38Y, and D-levels. 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.

MINOR PROGRAMME IN ANTHROPOLOGY

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

1. ANTH01Y Introduction to Anthropology
2. At least one full-course from among the following:
   a) ANTH15Y Biological Anthropology or ANTH22Y Primate Behaviour
   b) ANTH20Y Social and Cultural Anthropology
   c) ANTH11Y Introduction to World Prehistory or ANTH38Y First Nations of North America in Archaeological Perspective
   d) 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.

ANTH21Y Introduction to Anthropology

The first term deals with physical Anthropology and Archaeology, concentrating on the biological basis and the evidence for the origins and growth of culture. The second term extends the nature of language and the comparative aspects of Cultural Anthropology, through a study of social groups as well as economic, political, and religious systems in both non-industrial and industrial societies. Lectures and tutorials.

Exclusion: ANTH01Y F.D. Burton / M. Lambe

ANTH37Y Introduction to World Prehistory

The development of art, technology, religion and lifeways of hunters and gatherers living during the Paleolithic, from two million to ten thousand years ago. Examination of the two major cultural developments of the past ten thousand years out of which emerged modern human societies: the agricultural and urban transformations. The course emphasizes the ecological-adaptive factors and the archaeological evidence bearing on the beginnings of permanent human settlements, the domestication of plants and animals, and the development of complex social and technological systems.

Exclusions: ANTH11Y, ANTH12Y
Prerequisites: ANTH01Y T.B.A.

ANTH20Y Social and Cultural Anthropology

An examination of the basic approaches to understanding social and cultural organization in societies.

Excluding: ANTH20Y This course explores comparative social institutions, including kinship and marriage as well as economic, political and religious institutions. Some attention will also be given to belief systems, education and symbolic thought as well as sources of stability and change in society and anthropological perspectives on current social issues. Exclusion: ANTH20Y

Prerequisites: ANTH01Y or permission of the instructor.

R.W. Shirley

ANTH22Y Primate Behaviour

A general introduction to the study of the life ways of non-human primates with particular emphasis on observing and recording primate behaviour. Readings and lectures develop the content in which observations are made.

Tools of recording and analysis are practiced and presented in seminars.

Exclusion: ANTH22Y

Prerequisites: ANTH01Y or ANTH15Y or PVCY01Y or SHCoolY

P.O. Burton

ANTH252Y Cultures of the Middle East and the Islamic World

An introduction to the similarities and variations among contemporary and traditional Muslim societies from an anthropological perspective.

Focusing primarily on the peoples of the Middle East and North Africa, this course seeks to explore the bonds of a common faith that is a social system, which unites the diverse cultures of the Islamic World. Prerequisites: ANTH01Y or permission of the instructor

J. Bobby

ANTH234 and ANTH340 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 tutorial, as arranged. In addition to course work to be decided by the instructor, one seminar presentation of the student's research findings is required. Prerequisites: ANTH01Y & one B-level full-course equivalent in Anthropology & permission of the instructor.

Members of Faculty

ANTH204H African Cultures and Societies B: Case Studies

This course is designed to complement ANTH20Y by giving closer examination to selected issues in African ethnography. Case studies from different parts of the continent will be used to highlight problems in a comparative framework, as well as to illustrate major developments in anthropological thought.

Exclusion: ANTH100

Prerequisites: ANTH01Y or ANTH20Y or ANTH204Y or permission of the instructor. T.B.A.

ANTH11Y The Anthropology of Women and Gender

A cross-cultural examination of sex roles and gender construction and their implications for the position(s) of women in contemporary and traditional societies. The course explores how and why social-cultural systems based on sexual inequality originate, how they maintain themselves, and how they change. Topics include biological, social, cultural, and economic interpretations of femininity and masculinity in human societies.
ANTH201H3 The Ecological Perspective in Anthropology
Prerequisite: ANTA10Y

ANTH202H3 The Americas: An Anthropological Perspective
Corequisites: ANTH110H3, ANTH201H3

ANTH204H3 An Introduction to Archaeological Materials
Exclusions: ANTH100H3, ANTH201H3

ANTH205H3 African Cultures and Societies I: Survey
Prerequisites: ANTA01Y or permission of the instructor

ANTH207H3 Biological Anthropology
Exclusion: ANTH204H3

ANTH217H3 Political Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH221H3 Human Nature
Prerequisites: ANTA01Y or permission of the instructor

ANTH232H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH233H3 An Introduction to Biological Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH234H3 An Introduction to Cultural Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH235H3 An Introduction to Social Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH236H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH237H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH238H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH239H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH240H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH241H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH242H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

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ANTH245H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH246H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH247H3 An Introduction to Anthropology
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ANTH248H3 An Introduction to Anthropology
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ANTH249H3 An Introduction to Anthropology
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ANTH250H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH251H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH252H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH253H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH254H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH255H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH256H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH257H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH258H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

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ANTH284H3 An Introduction to Anthropology
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ANTH285H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH286H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH287H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH288H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH289H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH290H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH291H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH292H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH293H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH294H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH295H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH296H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH297H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH298H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor

ANTH299H3 An Introduction to Anthropology
Prerequisites: ANTA01Y or permission of the instructor
Four Programmes 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 no 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 Science 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 registered in Biology Programmes 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 laboratory courses in these areas. Students are advised 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 (1523AB or 5421A) which has more detailed information and suggestions for planning. In a few instances, courses from the other campuses at McGill are applicable to satisfy programme requirements, but such substitutions must be approved by the Supervisor of Studies. Students who are contemplating enrolment in one area of professional schools should consult those programmes for specific requirements, which might be satisfied while fulfilling degree requirements.

The Biology Students' Handbook

A web site exists for Biology students at: http://www.biology.mcgill.ca/biologicasa/biologyhandbook/

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

Courses in Neuroscience and Environmental Science

BCOMBI, BSc, Neuroscience

NRB145H, Developmental Neurobiology, and EECS318, Biodiversity and Biogeography, were previously Biology courses and may still be used as Biology courses to satisfy requirements in the Major and Specialist Programmes in the Biological Sciences.

First Year Students in Biology

Students who are intending to pursue Biology Programmes should take BGYA30Y 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: R.E. Dengler

(Biology 355, 287-7450)

This programme must include BGYA30Y plus three full-course equivalents in Biology. At least 1 F.C.E. must be at the C- or D-level.

Specialist Programme in Biological Sciences

Supervisor: R.E. Dengler

(Biology 355, 287-7450)

This Programme consists of 13 required F.C.E.'s. Students are encouraged to take CHMAG2Y 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:
One P.C.E. from the courses listed by the Division of Humanities, Social Sciences, or Management and Economics.

**SPECIALIST PROGRAMME IN CONSERVATION BIOLOGY AND THE ENVIRONMENT**

The Specialist 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 consider the Biology amount of the Environmental Science Specialist Programme.

**BIOV013 Introduction to Biology**

BIOV013 is a lecture and laboratory course designed to examine levels of organisation beginning with biological molecules, then proceeding to cells, tissues, organs, organ systems and culminating with habitats and biomes. The experimental 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, nutrition, respiration, photosynthesis and cellular and organismal development. The third quarter examines genetic changes in populations, and population ecology and conservation.

Two one-hour seminars and one one-hour laboratory per week. Exclusions: BIOV014, BIOY014 (T.R.A., C.K. Govind). C.K. Govind (Co-ordinator)
BSC51298: Advanced Plant Physiology
A 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, nitrogen and energy metabolism; hormones and motor mechanisms of gene expression; responses to light, pathogens and environmental stress; and aquatic and terrestrial ecosystems. Laboratory examinations encompass water relations; ion relations; hormonal action; photosynthesis; and osmotic and respiratory regulation.
BOYC40HS Plant Diversity
A comparative approach to the structure, development and reproduction of selected primitive and advanced vascular plants: club mosses, spike mosses, horsetails, ferns, gymnosperms and angiosperms. The study of mature and developing vegetative and reproductive structures contributes to an understanding of some of the important trends in the evolution of land plants over the past 400 million years.
Two one-hour lectures and one tutorial or three-hour laboratory per week.
Exclusion: BOY405Y, BOY410H
Prerequisite: BIO405Y or BIO410Y or BOY405Y
R.E. Dengler

BOYC42HS Marine Biology
A field course on selected topics in marine biology with particular emphasis on tropical waters. This course will be held during reading week 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 Scarborough. On site, students will study three main habitat types: rocky shore, open except, and coral reef. In addition, students will work on individual field projects.
Exclusion: BOY405H
Prerequisite: BIO312Y or permission of the instructor*  
D.D. Williams

* As this course is often overdescribed, interested students must contact the instructor well in advance of the start of the fall term for details and must, at that time, be prepared to place a deposit towards the cost of airfare and accommodation. Places are allocated on a first-come, first-served basis.

BOYC43HS Microbes in the Environment
An examination of the interactions between micro-organisms (algae, bacteria, fungi) and their environment. Following a survey of microbial diversity, factors of major importance to micro-organisms will be discussed. Fundamentals of microbial ecology in aquatic and terrestrial habitats will be examined, including seasonal dynamics, interactions among micro-organisms, productivity, and the role of micro-organisms in nutrient cycling and food webs.
One two-hour lecture per week. Several tutorials and problem sets.
Exclusion: BIO423Y, BIO404H
Prerequisite: BIO301Y or BIO312Y or BIO405Y or BOY410Y
M.E. Oldfield

BOYC45HS Limnology
A branch of ecology dealing with interactions of lake boats and the environment. Physical, chemical, and biological properties of lakes will be examined with special reference to northern temperate lakes. The structure and function of normal lakes ecosystems will be examined with the objective of gaining insight into lake responses to anthropogenic perturbations such as nutrient pollution (eutrophication), acidification, and global climate change.
One two-hour lecture plus one three-hour laboratory or tutorial per week.
Exclusion: BIO455H, ZOO378H, ZOO471Y
Prerequisite: BIO312Y or BIO405Y
T.R.A.

BOYC46HS Advanced Population Ecology
The study of changes in the number of organisms in time and space in response to biotic and abiotic disturbances.
Emphasis is placed on discussion of empirical studies from current literature. Topics include: limit of population growth, demography, reproduction, population regulation, coexistence and competition; responses to disturbance and stress; the concept of rarity and extinction.
One two-hour lecture and one three-hour laboratory per week. Offered in alternate years.
Exclusion: BOY405H, BIO430Y
Prerequisite: BIO301Y or BIO405Y
R. Hoorens

BOYC47HS Advanced Community Ecology
The study of assemblages of organisms 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 permanent communities. The application of ecological theory to solving community problems is emphasized. Topics include succession; primary productivity; nutrient supply; herbivory; predation; competition; trophic dynamics; stability and disturbance; introduced species; and effects of global change.
One two-hour lecture per week.
Exclusion: (BOY405H)
Prerequisite: BIO301Y or BIO405Y
T.R.A.

BOYD017Y Supervised Study in Biology
An independent study course designed to permit intensive examination of the literature of a selected topic not offered by a field program in biology. Supervision of the work is arranged by mutual agreement between student and instructor. This course requires the student to present their results as a short seminar at the Biology Research Day, which is usually held during the study week preceding spring term final exams.
Students must obtain a permission form from the Divisional Office (SOA 241) that is to be returned and signed by the intended supervisor, and return the Divisional Office. At that time, the student must be provided with an outline of the specific requirements for the course.
Exclusion: BOT460Y, ZOO498Y, BIO405Y
Prerequisite: Satisfactory completion of fifteen full-course equivalents, of which at least four must be Biological Science B- or C-level courses and permission of the instructor.
Members of Faculty

BOYD027Y Directed Research in Biology
Identical to BOYD017Y but not to be taken with the same faculty member.
Exclusion: BOT460Y, ZOO498Y
(BIO405Y)
Prerequisite: Satisfactory completion of fifteen full-course equivalents, of which at least four must be Biological Science B- or C-level courses and permission of the instructor.
Members of Faculty

BOYD043H Molecular Genetics
An introductory course that goes beyond Mendelian genetics, and the central dogma of biology: DNA -> RNA -> Protein. This course will consider the following topics: recombination in bacteria and their viruses, recombinant DNA technology, mutation, transposable genes, transposons, viroid genetics and genomics. One three-hour evening lecture meeting and one three-hour laboratory meeting.

The weekly meetings will consist of a variable mixture of traditional lecture, group problem solving, student presentations, and open forum discussion.
Limited enrollment, 40
Exclusion: BOY405H
Prerequisite: BIO405Y or BIO415H
C. Haenensmey
BOYD123  Molecular Biology Laboratory I: Heat, Vectors and Cloning
A laboratory course focusing on recent advances in the molecular biology of the gene. The following areas will be included: organization of the eukaryotic genome, regulation of eukaryotic transcription, translation, splicing, post-transcriptional control mechanisms, translational control, the molecular biology of developmental disorders. An important feature of the course will be to introduce students to current research papers in scientific journals.

One two-hour lecture per week.
Limited enrollment: 20
Exclusions: BIOD170
Prerequisites: BOYD111
J.R. Brown

BOYD124  River Ecology
The course will begin with an introduction to stream hydrology and sediments, and the adaptations of plants and animals to life in a dynamic habitat. Later topics will cover micro- and macro-distribution of stream fauna and the problems of quantitatively sampling them; basic interactions; community structure and stability; colonization patterns following disturbance; energy transformations; estimates of productivity; and scale effects on rivers.
One two-hour lecture and three hours of laboratory work per week. There is a considerable field and laboratory component which assesses the impact of human activity on 3 local rivers. Offered in alternate years.
Limited enrollment: 15
Exclusions: BIOD141, ZOO459
Prerequisites: BIOD125 or BOYD126
D.D. Williams

LSCA065  Human Biology
A course that covers selected, contemporary topics in human biology. Areas covered will be relevant to students not enrolled in any of the biology curricula but who are interested in areas such as evaluating medical discoveries, nutrition, inherited conditions, human evolution. Topics may vary each year the course is given to permit inclusion of recent studies.
Exclusions: BOYAG011, BIOD104Y, BOYD150Y
C. Piccirilli

Courses Not offered 1000/2000

BOYD111  Microbiology II: Perspectives of the Microbial World
Exclusions: BIOD102Y
Prerequisites: BOYD110 or permission of the instructor for students not in the Cell and Molecular Biology Program.

Exclusions: BIOD103H, BIOD104H
Prerequisites or Corequisites: BIOD110Y OR BROYD

BOYD121  Molecular Aspects of Plant Development
Exclusions: BIOD110, BIOD124
Prerequisites: BIOD130 OR BIOD135 OR BIOD136

BOYD136  Molecular and Classical Cytogenetics
Exclusions: BIOD141
Prerequisites: BIOD135 OR BIOD136 OR BIOD135Y OR BIOD136Y

BOYD162  Research Vertebrate Endocrinology
Exclusions: ZOO123, BIOD101
Prerequisites: BIOD124

BOYD122  Seminar in Conservation Biology
Prerequisites: BOYD123

BOYD125  Restoration Ecology
Prerequisites: BIOD101 and one other 2-level BOY or EES laboratory course

BOYD163  Conservation Genetics
Exclusions: BIOD141, BIOD149
Prerequisites: BIOD101 AND BIOD101Y

Chemistry (B.Ed.)
Please refer to the Physical Sciences section of the calendar; page 102 for a list of programmes. Please refer to PPS 'Scrabbhorne page 105 for programme and course outlines.

BOYD11B  Evolutionary and Applied Biology of Insects
Exclusions: BIOD120
Prerequisites: BIOD141 OR BIOD142

BOYD11B  Molecular Aspects of Plant Development
Exclusions: BIOD110, BIOD124
Prerequisites: BIOD130 OR BIOD136

BOYD11B  Molecular and Classical Cytogenetics
Exclusions: BIOD141
Prerequisites: BIOD135 OR BIOD136 OR BIOD135Y OR BIOD136Y

BOYD11B  Vertebrate Endocrinology
Exclusions: ZOO123, BIOD101
Prerequisites: BIOD124

BOYD11B  Seminar in Conservation Biology
Prerequisites: BIOD123

BOYD11B  Restoration Ecology
Prerequisites: BIOD101 and one other 2-level BOY or EES laboratory course

BOYD11B  Conservation Genetics
Exclusions: BIOD141, BIOD149
Prerequisites: BIOD101 AND BIOD101Y

Classical Studies (B.A.)

Faculty List
J. Waddell, M.A. (Canb.,), Professor Emeritus
J.H. Corbitt, M.A., Ph.D. (Toronto), Associate Professor
M.E. Irwin, M.A., Ph.D. (Toronto), Associate Professor
J.E. McDonald, B.A. (Alberta) Ph.D. (N. Carolina), Associate Professor

Discipline Representative: M. Irwin (260-7138)

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

Major Programme in Classical Studies

Supervisor: M.E. Irwin (260-7138)
The Major Programme in Classical Studies has been withdrawn. Every effort will be made to allow students who registered in this programme before September 1995 to complete it at this campus.

Any student who wishes to take a course or courses in Classical Studies in 1999/2000 is encouraged to see the Supervisor of Studies, Prof. E. Irwin, to discuss arrangements.

Minor Programme in Classical Studies

Supervisor: M.E. Irwin (260-7138)
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 CLA302Y Greek and Roman Mythology
CLA2010G Greek and Latin for Scientists
An examination of the role of Greek and Latin in the formulation of technical terms in the science disciplines.

CLA2010H Freedom in the Making of Western Culture
Excluion: (GRB125, GRB126, CLAS19, CLAS20)
Prereq: (CLA101Y or CLAS19 or HIS101Y or HISP101)

CLA2021H Slavery in the Roman Empire
Excluion: (CLAS19, CLAS20, CLAS31)
Prereq: (CLA020 or W31A)

CLA2011H Medieval Europe
Faculty List
R.L. Black, M.A., Ph.D. (Chicago), Professor
G. Hirst, B.A., B.Sc., M.Sc. (Can., U.B.C.), Ph.D. (Brown), Professor
J.M. Kennedy, B.Sc., M.Sc. (Belfast), Professor (Cornell), Professor
A. Kukla, B.A., M.A., Ph.D. (UCLA), Professor
C.M. MacLeod, B.A. (McGill), Ph.D. (Washington), Professor
W.B. Singer, A.M. (Alberta), Ph.D. (Toronto), Professor
M.J. Smith, B.Sc. (Toronto), Ph.D. (MIT), Professor
M.A. Schumman-Roy, B.A. (SUNY-Rochester), Ph.D. (Cornell), Associate Professor
S. Sydov, B.A. (Toronto), Ph.D. (Pittsburgh), Associate Professor
R. Smyth, B.A. (Carleton), M.Sc., Ph.D. (Alberta), Associate Professor

Supervisor A. Kukla (197-3466)
Cognitive Science is the study of knowledge—how human beings, other animals, and even machines acquire knowledge, organize and store that knowledge, and use that knowledge to solve problems. Cognitive scientists are particularly interested in the way we use symbolic systems, such as natural or computer languages, drawing, or mathematical notation, to organize our knowledge of the world. Cognitive Science considers questions like: Are we born with some knowledge already in place? How does our experience of the world allow us to
develop knowledge? Is knowledge stored as visual images, words, or abstract propositions? How do we master and store the complicated system of rules that allows us to use language? How do language and culture affect our understanding of the world? How is the knowledge stored in a computer like and unlike the knowledge stored in our heads?

The Cognitive Science Program (Major and Special) draws on philosophy, linguistics, computer science, and psychology to answer these questions. The Program is excellent preparation for students interested in teaching in junior schools, who should add a course in Philosophy of Education, and obtain practice teaching experience. They are also an excellent base for students interested in careers in Speech Pathology, who should add courses in human physiology. Also, they prepare students for careers in Psychology and Philosophy, and are good preparation for careers in Computer Science and Neuroscience.

First-Year Students in Cognitive Science are encouraged to consider the following courses in Computer Science. These courses are recommended for first-year students who are interested in a major in Cognitive Science.

1. Psychology and Neuroscience
   - Introduction to Psychology
   - Biological Psychology
   - Developmental Psychology
   - Perception and Cognition
   - Memory and Cognition

2. Linguistics
   - Introduction to Linguistics
   - Introduction to Psycholinguistics

3. Philosophy
   - Introduction to Philosophy
   - Introduction to Metaphysics

4. Computer Science
   - Introduction to Computer Science
   - Introduction to Programming

5. Cognitive Science
   - Introduction to Cognitive Science
   - Introduction to Computer Science

Note: Students may substitute (COC501Y) for PSY510H1 to satisfy the Psychology requirement for the Cognitive Science Program. This option is available for students who have completed (COC501Y).
Computer Science (B.Sc.)

Please refer to the Physical Sciences Scarborough section of the calendar, page 102 for a list of programmes. Please refer to RSS Scarborough page 213 for programmes and course outlines.

Co-operative Programmes

Scarborough 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.

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

The programmes offered are: Management (B.Sc.), Management & Economics (B.Sc.), Computer Science and Physical Sciences, Environmental Science, and International Development Studies.

Specialist (Co-operative) Programme in Business Administration was discontinued as of the 1986/1987 Academic Year. 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 1986 Calendar. Please refer to the Management section of the Calendar for information on the Specialist (Co-op) Programme in Management.

Specialist (Co-operative) Programme in Arts Management is offered by the Visual and Performing Arts at Scarborough. The programme integrates studies in Drama, Music, or Visual Art (Studio or Art History) with administrative courses in Management (General), Economics, Political Science, Cultural Policy, and Arts Management. Work experience is gained in galleries, museums, opera, theatre and dance companies, symphony orchestras, art service organizations, and government cultural agencies. For further information, consult the listing under Visual and Performing Arts (page 109).

Specialist (Co-operative) Programme in Computer Science combines scientific and mathematical studies with work experience in research and technology in the private and public sectors. The programme prepares students for permanent employment in the areas of Information Technology, Research and Development, as well as for graduate study in computer science. For further information, consult the listing under Physical Sciences Scarborough (page 115).

Economics for Management Studies (B.A.)

Faculty List
M. Kraskowski, B.B. (L.L.T.), M. Phil., Ph.D. (Yale), Professor
L.C. Parker, B.A. (University of London), M.A. (Toronto), Ph.D. (Yale), Associate Professor
M. Borel, B.Sc., M.Sc. (Quebec), Ph.D. (Queen's), Assistant Professor
C. Cleveland, B.A. (Dalhousie), M.A., Ph.D. (Toronto), Assistant Professor
W. Hazan, B.A. (Western Ontario), M.A., Ph.D. (Temple), Assistant Professor
T. Lloyd-Smith, B.Sc. (London), M.A., Ph.D. (Queen's), Assistant Professor
A.A. Payne, B.A. (Dundee), M.A. (Cornell), Ph.D. (Princeton), Assistant Professor
G. Peterson, B.Sc., M.Sc., (Ouistre), Lecturer

Economics studies how consumers and producers interact in a market economy to provide goods and services. Economics also analyzes how the pressures grow and change over time, and under circumstances it may fail to function in an optimal fashion. Economic policies to remedial these failures are also examined.

In the Division of Management, the study of economics is oriented primarily to the needs of students interested in management studies. Thus many of our examples will focus on the ways in which firms and consumers in western economies interact. However, students interested in the wide variety of problems

Drama for Management Studies (B.A.)

Please see Visual & Performing Arts section of the Calendar page 173.

Drama (B.A.)

Specialist (Co-operative) Programme in Environmental Science provides the key to understanding and reaching many of the environmental issues that plague our planet. Problems such as diminishing and polluted water supplies, acid rain, lake and coastal erosion, disposal of household, industrial and radioactive waste are related to an insufficient understanding of near-surface geology and geological processes. The Specialist (Co-operative) Programme in Environmental Science provides students with an opportunity to investigate, analyse and remediate these problems through work placements with government, consulting, industry and the non-profit sector. For further information, consult the listing under Environmental Science (page 121) or Physical Sciences Scarborough (page 102).

Specialist (Co-operative) Programme in International Development Studies prepares students for careers in international development. Courses include Economics, Political Science, Environmental Science, Geography, and related sciences and social science courses. Students spend eight to twelve months on placement with a Canadian or an indigenous organization in Asia, Africa or Latin America. Career opportunities, in Canada or abroad, include work with a variety of Canadian development agencies (NGOs and private sector firms), CIDA, the United Nations, and in development education. For further information, consult the listing under International Development Studies (page 73).

Specialist (Co-operative) Programme in Management and Management & Economics combines study and work experience in business and government. Core courses include Management, Economics, Statistics, and Computer Science. These work terms (four months each) are available in such areas as accounting, public administration, auditing, communications, finance, human resources, information systems, marketing, as well as in fields which involve economic or policy analysis. Graduates gain employment in all levels of government, large corporations, chartered accounting firms, small business, and quasi-government organizations. For further information, consult the listing under Management (page 86).

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

Fees
Every student in a co-operative programme is required to pay additional fees as established by the University.
addressed by economists will find these matters are also addressed in our courses. Nevertheless any such similarities, students should be aware that courses with the designation ECM taught within the Division of Management are not the same as courses with the designation ECO taught by the Department of Economics in the Faculty of Arts and Science. Courses with similar titles will address similar topics, but the orientation of courses within the Division of Management will be somewhat different than the orientation of courses within the Department of Economics in the Faculty of Arts and Sciences. These students wishing to pursue a graduate program in Economics should consult with the Undergraduate Secretary of the Department of Economics at the St. George campus, or the graduate secretary of the Department of Economics where they intend to do further work to determine what additional courses would be required to do graduate work in this field. The Supervisor of Studies at Scarborough can help you with this task.

The curriculum provides an excellent background for careers in business, government, and the professions, and may be of considerable interest to students specializing in other disciplines as well. Students may study economics within several specially designed joint programs (with management or with Political Science). Students may also take a major or a minor in the area.

Program In Economics for Management Studies

Students generally apply to enter a program at the end of their first year. Later admission is also possible. Students should consult the detailed information below. The following programmes are offered:

1. Specialist in Political Science & Economics (Management Studies) - a special degree with equal amounts of Economics and Political Science (all courses) each, consists with a twenty-course degree. Described in detail below.
2. Major in Economics for Management Studies program of courses in Economics and Management Studies and one of Business Administration or another a fifteen-course or a twenty-course degree. Described in detail below.
3. Minor in Economics for Management Studies - program of the fifteen courses of Economics for Management Studies, consists with either a fifteen-course or a twenty-course degree. Described in detail below.

Other Programs with a substantial component of Economics for Management Studies

4. Specialist in Management & Economics - a program of seven full courses in Management and five full courses in Economics for Management Studies, plus some other requirements, leading to a Bachelor of Commerce degree. Described in detail in the Management section of this Calendar.
5. Specialist in Management - a program of six and a half courses in Management and three full courses in Economics for Management Studies, plus some other requirements, leading to a Bachelor of Arts degree. Described in detail in the Management section of this Calendar.
6. Specialist (Co-op) programmes of 8 and 9 above - These programs have similar requirements to #4 and #5 above, but also include co-op work terms. Described in detail in the Management section of this Calendar.

7. Specialist (Co-op) in International Development Studies - a program in the Social Sciences stream which includes up to four full courses in Economics for Management Studies. Described in detail in the International Development Studies section of this Calendar.
8. Major in International Development Studies - a program in the Social Sciences stream which includes up to four full courses in Economics for Management Studies. Described in detail in the International Development Studies section of this Calendar.

Admission to Programs in Economics for Management Studies and in Management Studies

1. All students, even those who have been directly admitted into the Division from high school (and who are guaranteed admission into programs in the Division), must formally apply to specific programs after four courses have been completed. Program applications are made on program admission forms by the Supervisor of Studies only once a year, in May and in August. These decisions are based on program reopen which students submit to the Registrar (see website pre-registration instructions which are provided at that time by the Registrar). Only transfers into these programs are considered at other times. Students should have ten credits or less at the time they seek admission to programs in the Division of Management.

Economics for Management Studies

Courses with Limited Enrollment

Students who have been admitted to all the Specialist and Major programs described above are guaranteed admission to courses in Economics for Management Studies and courses that remain open. However, students are encouraged to enroll in courses that have been completed. Remaining spaces in courses are allocated to non-program participants on the basis of a first-come, first-served basis. In some cases, there are special requirements that are to be met for enrollment in Economics for Management Studies. Students who are interested in economics for Management Studies should consult the Undergraduate Secretary for further information.

Students who have been admitted to the Bachelor of Arts in Economics for Management Studies may register for the Bachelor of Arts in Economics for Management Studies. This permit requires students to have completed all coursework in Economics for Management Studies and to be registered in a full-time program. Students who have been admitted to the Bachelor of Commerce in Economics for Management Studies may register for the Bachelor of Commerce in Economics for Management Studies. This permit requires students to have completed all coursework in Economics for Management Studies and to be registered in a full-time program.

Economics for Management Studies is a program that is designed to provide students with an understanding of economic principles and their applications in management. The program is designed to provide students with a solid foundation in economic theory and to prepare them for careers in business, government, and the professions.

Please consult the Undergraduate Secretary for more information on admission requirements and program details.
**MINOR PROGRAMME IN ECONOMICS FOR MANAGEMENT STUDIES**

**Supervisor:** G. Cleveland (287-7317)  
**E-mail:** gcleve@cohen.gsu.edu  
**NOTE:** Registration in this Programme is limited. Please refer to Management Studies.

This programme consists of four full-course equivalents in Economics for Management Studies as follows: ECON 4922, ECON 4923, ECON 4924, and ECON 4925. Students may choose their courses from the list below, subject to the following conditions:

- **ECON 4922** (or ECON 4923)  
- **ECON 4924** (or ECON 4925)

**ECON 4922: Introduction to Economics A Mathematical Approach**

- A study of economic theory and its application to contemporary Canadian economic problems. The course covers topics such as: economic growth, inflation, unemployment, and economic growth. Students will be evaluated on their understanding and ability to solve economic problems.

**ECON 4923: Microeconomics**

- This course covers microeconomic principles, including supply and demand, market structures, and consumer behavior. Students will learn how to analyze market outcomes and policy implications.

**ECON 4924: Macroeconomics**

- This course covers macroeconomic principles, including GDP, inflation, unemployment, and economic growth. Students will learn how to analyze national economies and their performance.

**ECON 4925: International Economics**

- This course covers international economic principles, including trade, finance, and economic systems. Students will learn about the global economy and how it affects individual countries.

Students may choose their courses from the list above, subject to the following conditions:

- **ECON 4922** (or ECON 4923)  
- **ECON 4924** (or ECON 4925)

**Enrollment:** Limited enrollment. Students must register with the Programme Coordinator, G. Cleveland, to confirm their placement.

**Admission:** Students must register with the Programme Coordinator, G. Cleveland, to confirm their placement. Students with 4.0 course credits will be considered for enrollment. Students with 2.0 course credits will be considered for enrollment with a recommendation from the Programme Coordinator.

**Major and Minor in Economics:**  
Students may choose to major in Economics or to minor in Economics. Major in Economics requires a minimum of 30.0 course credits, while minor in Economics requires a minimum of 15.0 course credits. Students interested in either major or minor in Economics should consult with the Programme Coordinator, G. Cleveland, for more information.

**Admission:** Limited enrollment. Students must register with the Programme Coordinator, G. Cleveland, to confirm their placement. Students with 2.0 course credits will be considered for enrollment with a recommendation from the Programme Coordinator.
ECONOMIES OF THE MEDIA
An examination of the role and importance of communication media in the economy.
Topics to be covered include: the challenges media pose for conventional economic theory, the media and contemporary issues in media development, and basic media research techniques. The course is research-oriented, involving empirical assignments and a research essay.
Limited enrolment: 60.
Restrictions: EC/COM520 or EC/COM540 or EC/COM540 or enrolment in the Arts Management program.
W. Parker

ECONOMIES OF THE PUBLIC SECTOR: TAXATION
A course concerned with the revenue side of government finance. In particular, the course deals with existing tax structures, in Canada and elsewhere, and with criteria for tax designation.
Limited enrolment: 60.
Exclusion: EC/COM230.
Restrictions: EC/COM230 or EC/COM230 or EC/COM230 or enrolment in the Arts Management program.
M. Kozlowski

ECON350H Law and Economics
A study of laws and legal institutions from an economic perspective. Includes the development of a positive theory of the law suggesting that laws frequently evolve so as to maximize economic efficiency. The efficiency of various legal principles is examined. Topics covered are drawn from: externality, property rights, environmental law, contracts, torts, product liability and consumer protection, criminal law, and procedure.
limited enrolment: 60
Exclusion: ECO3205 (ECOC15)
Prerequisite: ECON507Y or ECON508Y (ECON507Y or ECON508Y) (ECON507Y or ECON508Y) will be accepted as a corequisite when ECON537H is taught in the second term of the winter session)
T.B.A.

ECON5180H Economics of Organization and Management
This course covers economics of the internal organization of the firm. The emphasis will be on the economic relationships between the various parties involved in running a business: managers, shareholders, workers, banks, and the government.
Topics covered will include the role of organizations in market economies, contract theory, risk sharing, property rights, corporate financial structure, and vertical integration.
limited enrolment: 60
Exclusion: ECO2310 (ECOC49)
Prerequisite: ECON508Y or ECON509Y (ECON509Y or ECON509Y)
W. Lloyd-Ellis

ECON519HS Industrial Organization
The economics of the firm in a market environment. The aim is to study business behavior and market performance in papers influenced by concentration, entry barriers, product differentiation, diversification, research and development, and international trade. There will be some limited use of calculus in courses.
limited enrolment: 60
Exclusion: ECO2305 (ECOC41)
Prerequisite: ECON508Y or ECON509Y or ECON509Y (ECON509Y or ECON509Y). W. Lloyd-Ellis

ECON5270H Monetary Economics
This course examines monetary theory and institutions focusing on the relationship among money, prices and economic activity. Topics include: money supply definitions and redefinition, a detailed examination of the demand for and supply of money, the term structure of interest rates, targets and instruments of monetary policy, the use of rules versus discretion/institutional monetary policy.
limited enrolment: 60
Exclusion: ECO3404 (ECOC10)
Prerequisite: ECON507Y or ECON508Y (ECON508Y or ECON508Y) T.B.A.

MGT525H3 Business Negotiation
An introduction to the theory and practice of negotiation in business. All business relationships (for example, relationships among managers and relationships with suppliers and customers) require negotiations. This course provides the student with a set of approaches and tactics to use in different forms 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
This course will count as B-course in Economics for Economics programs. Exclusion: MGT558Y
Prerequisite: MGT542Y or MGT5232H, MGT524H

MGT5230H Introduction to Industrial Relations
An overview of the industrial system and unions in Canada. This course will introduce students to industrial relations theory, the roles of unions and 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: 50
This course will count as a B-course in Economics for Economics programs. Exclusion: MGT558Y
Prerequisite: Completion of at least ten full-course equivalents including ECON407Y (ECON407Y or ECON407Y) & MGT524Y

ECON522H International Economics: Trade
International Economics: Trade
An analysis 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.
Economics and international trade. The instruments and effects of trade policy (tariffs, quotas, non-tariff barriers), the theory of customs union.
limited enrolment: 60
Exclusion: ECON507Y or ECON508Y (ECON507Y or ECON508Y)
Prerequisite: ECON507Y or ECON508Y T.B.A.

ECON523H Economic Development
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, equilibrium in income distribution, the role of agriculture. Limited enrolment: 50
Exclusion: ECON526H, ECON546H, ECON568H
Prerequisite: ECON507Y or ECON508Y (ECON507Y or ECON508Y)

A. Berry

ECON527H Development Policy
A consideration of how government policy can affect the pace and nature of development in Third World countries. Emphasis will be on the most important policies including those relating to rural organization, agricultural goods markets, labour markets, credit markets, trade policies, income distribution, and technological change.
limited enrolment: 50
Exclusion: ECON524, ECO3507H, ECON507Y
Prerequisite: ECON507Y or ECON508Y (ECON507Y or ECON508Y)

ECON528H Workshop in Economic Research
This course introduces students to the research methods used by economists. Research problems and to do research. In the first half of the course, students will discuss their approaches to research. At the end of the course, students will choose a research problem and a faculty member with whom to work. During the second term, students will research and write papers on their topic and present their ongoing work to other members of the class.
Exclusion: ECON507Y or ECON508Y (ECON507Y or ECON508Y) or ECON507Y or ECON508Y (ECON507Y or ECON508Y) or ECON507Y or ECON508Y (ECON507Y or ECON508Y)

This course should be taken among the last 5 courses of a twen-year degree.
English

(B.A.)

Faculty List

W.J. Howard, M.A., S.T.B. (Toronto), Ph.D. (Leeds), Professor Emeritus
R.M. Brown, M.A., Ph.D. (New York), Professor
M.C. Cuddy-Kane, M.A., Ph.D. (Toronto), Associate Professor
N. Komar, M.A., Ph.D. (Toronto), Associate Professor
G. Leonard, M.A., Ph.D. (Florida), Associate Professor
A.G. Panagiot, M.A. (McGill), Ph.D. (Birmingham), Associate Professor
K. Teal, M.A., Ph.D. (Yale), Associate Professor
M.B. Goldstein, M.A. (Victoria), Ph.D. (Toronto), Associate Professor

Discipline Representative: G. Leonard (287-7414)

Supervisor of Students: M. Cuddy-Kane (287-7412)

The discipline of English involves not only broad study of the great works of literature but also training in complex modes of interpretation and communication that are invaluable in our increasingly multi-media-oriented world. At Toronto, the curriculum offers courses in the English-language literatures of Britain, Canada, America, and other areas of the world, as well as providing large investigations of culture. An emphasis on literature of more recent periods is balanced by historical examinations of earlier works and a general survey of the British literary tradition. All courses place emphasis on close, responsible reading, critical thinking, and clarity of expression.

A-level courses introduce all students to the study of English at the university level. ENGLA1Y is designed both for students planning a Specialist, Major, or Minor Programme in English and for students having a general interest in literature or the humanities. ENGLA1Y is available for those students enrolled in ENGLA1Y who want to take English courses in the English language as an introduction to the writing of English essays. ENGLA1Y and ENGLA2Y are required for all students planning a Specialist or Major Programme in English. Other B-level courses require no prerequisites and are available both to beginning and to more advanced students.

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

D-level courses provide opportunities for more sophisticated study and require some independent work on the part of the student. These courses are generally restricted in enrollment and may involve the presentation of seminars.

Students are advised to check the prerequisites for C- and D-level courses when planning their individual programmes, and to consult with the Supervisor of Students or the Discipline Representative before taking courses on other campuses.

MINOR PROGRAMME IN ENGLISH LITERATURE

Supervisor: M. Cuddy-Kane (287-7412)

Four full-course equivalents in English are required. They should be selected as follows:

1. ENGLA1Y Introduction to Literary Study: The Twentieth Century
2. ENGLA12H Writing Workshop for ENGLA1Y (Students who have successfully completed ENGLA1Y prior to Winter 1996/97 do not need ENGLA12H to fulfill requirements for a Specialist Programme in English)
3. ENGLA20Y Critical Thinking and Writing
4. ENGLA20Y ENGLA20Y
5. ENGLA20Y English Literature: Historical Survey
6. One of the 6-level Geographical Studies (ENGLA70Y, ENGLA72Y, ENGLA73Y)
7. One full-course equivalent at the C-level
8. Additional full-course equivalents, at least 2 of which must be at the C-level, to bring the total number of English courses successfully completed to ten (10) full-course equivalents.

MAJOR PROGRAMME IN ENGLISH

Supervisor: M. Cuddy-Kane (287-7412)

Seven full-course equivalents in English are required. They should be selected as follows:

1. ENGLA1Y Introduction to Literary Study: The Twentieth Century
2. ENGLA12H Writing Workshop for ENGLA1Y (Students who have successfully completed ENGLA1Y prior to Winter 1996/97 do not need ENGLA12H to fulfill requirements for a Major Programme in English.)
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 academic writing for english and all students planning to continue the study of english should take ea121h while they are enrolled in ea11y.

note: students who successfully completed ea11y prior to winter 1996/97 do not need ea121h to gain admission to ea130y. exclusion: ea201y, ea010y, ea011y, ea410y

r. brown/g. leonard

ear121h writing workshop for ea11y as an adjacent to ea11y, providing intensive training in critical writing for english courses. this course is designed to develop the writing skills required for the study of english literature at the university level. it will make use of group workshops in which attention will be given to writing techniques and strategies of argumentation; to questions of appropriate tone and voice; to research techniques; and to bibliographic style.

as well as providing a general consideration of essay writing appropriate for introductory english studies, the course will also devote some time to specific kinds of writing, such as abstracts and writing in time-controlled situations. assignments will be coordinated with the current ea11y and will reflect writers and topics studied there.

note: students who have successfully completed ea11y prior to winter 1996/97 do not need to take ea121h to gain admission to ea130y.

concurrent: ea130y

course coordinator: r. brown (287-7102)

ear130y literary history

ear130y critical thinking and writing

an introduction to critical writing as an exploration of selected critical approaches to literary texts. this course will study closely a small number of works from different periods as means of becoming acquainted with the variety of critical approaches to literature. through an examination of selected critical essays, students will develop their own critical approaches and their analytical and writing skills.

this course is required for majors and specialties in english.

exclusion: ea201y

preparation: ea11y & ea121h

note: students who have successfully completed ea11y prior to winter 1996/97 do not need to take ea121h to gain admission to ea130y.

concurrent: ea130y

d. benett (287-7139)

ear133y english literature: historical survey

a survey of english literature from the middle ages 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 morton anthology of english literature (ninth edition), vol. 1 and 2; further texts will be announced.

note: this is exclusively a lecture and examination course. students are advised to complete this course with english b11y in order to include group discussion, detailed textual study, and practice in essay writing in their study of english.

exclusion: ea201y, ea320y

preparation: ea11y

t.r.a. / m. caddy-krome

ear135y what is culture?
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 a 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 political organization and its attitudes to race, class, gender, sexuality and nationality? how do we distinguish between mass-cultural culture and subcultures, between industrial and post-industrial culture, or between "high" and "low" culture? we will explore the ways in which such approaches to culture are revealing the nature of english literary studies. drawing on a wide range of materials - including literary texts, film, video, advertisements, visual art, and hipsterism - this course will offer multicultural perspectives on such topics as contemporary media and communications, popular and commodity culture, technology, subcultures, and the history of the cinema.

t.r.a.

ear137y american literature: an introduction

a brief survey of literature in the united states.

examining the many different cultural points of view operating within the framework of the american experience, this course will explore such questions as: what is...
An exploration of Victorian literature and its relation to culture and society, 1837-1890. Texts will be selected to illustrate such compelling Victorian concerns as the construction of class identities; the question of sexual difference and its relationship to social organization; ideas about childhood and how best to regulate it; prevailing concepts of the primitive, the savage and the civilized; the notion of "effeminacy and its definition through representations of "forbiddens" and distinction between "high" and "low" art. Texts will be drawn from a variety of forms - essay, novel, poem, tract - by such writers as Arnold, the Brontës, the Bruegellers, Carlyle, Carroll, Darwin, Dickens, Gaskell, Blyton, Hardy, the Rossettis, Swinburne, Thackeray, Tennyson, and Wilde. 

Prerequisities: ENG 350Y or ENG 350Y and one or more full-course equivalents in English or five full-course equivalents at the B-level, one of which must be in English.

T.R.A.

ENG 3067Y Thirty-Second Century Drama

A study of developments in British, American and European drama in the twentieth century. This concentrated study looks at the reassessment or reprise of drama in the last hundred years. We will explore the emergence of such subgenres of drama as realism, expressionism, and theatre of the absurd, as well as subsequent challenges to such categories by later experimental writers. Prerequisites: ENG 350Y or ENG 350Y and one or more full-course equivalents in English or five full-course equivalents at the B-level, one of which must be in English. 

T.R.A.

ENG 3060Y The West in American Literature

An approach to the concept of "the West" as a myth, a metaphor, and a fantasy predominantly to the vision of the settlers of the United States, but challenged by Native North American ideas about life and the world. We will be reading a variety of sources, including "the wilderness" as Hawthorne and Poe, the frontier as Whitman, and the construction of the American as Cowboy in Owen Wister's The Virginian. Native writers may include Drexel, Welch, and Silko. We will also look at classic Western movies. Prerequisites: ENG 350Y or ENG 350Y or ENG 350Y and one or more full-course equivalents in English or five full-course equivalents at the B-level, one of which must be in English.

G. Leonard

T.R.A.

ENG 3061Y Myth and History in Canadian Fiction

A detailed study of several Canadian novels in the context provided by myth and history. The course will examine the significance of myth and history in the work of several Canadian fiction writers, the function of myth in literature and in culture; the Canadian writer's relation to tradition; and the interplay between past and present. We will consider works by such Canadian writers as MacDonald, Watson, Laurence, Froude, Davies, Richler, O'Hanlon, and King. Prerequisites: ENG 350Y or ENG 350Y and one full-course equivalent in English or five full-course equivalents at the B-level, one of which must be in English.

M.J. Goldman

T.R.A.

ENG 3068Y Independent Studies: Creative Writing

A student research 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 the student and of the instructor. Enrollments in this course are limited to one or two students per year. For more details, contact the supervisor of studies. Prerequisite: ENG 350Y.

T.R.A.

ENG 3069Y The Gothic Tradition

An exploration of the Gothic tradition from the 1790's to the present. What are the cultural and historical roots of this genre with its striking presentation of insatiable vampires and eerie ghosts, violent storms, misty moonlight, lurid sexual passion and sinister religious? How do the best examples of this genre manage both to frighten and reassure? What happens to the tradition when it is appropriated into American and Canadian culture? Why is it so important and dominant as a genre in the 1990's as it was in the 1790's? The Gothic genre reflects the fear and anxiety of any enduring genre, has established ways of exploring human behavior relative to identity, fantasy, desire, death, and political power, and the fear of the unknown. We will be reading for you an established code of what constitutes the "Gothic" and how later writers subverted or reinterpreted it. We will read texts by such writers as Walpole, Radcliffe, Lewis, Kost, Hawthorne, Poe, Stoker, M. Shelley, Stevenson, Flaubert, O'Connor, Atwood, Rice, Morrison, and Carter. Prerequisites: ENG 350Y or ENG 350Y or ENG 350Y and one full-course equivalent in English or five full-course equivalents at the B-level, one of which must be in English.

T.R.A.

ENG 3065Y Alice Munro

A study of the short fiction of Alice Munro. This course will focus on Alice Munro's short stories and the shape of her collections. Students will work individually on specific short stories and in groups on presentations dealing with Munro's work in a variety of contexts. The course will conclude with a written term project. Prerequisites: ENG 350Y or one further full-course equivalent in English or ENG 350Y and one full-course equivalent in English or ENG 350Y and one C-level full-course equivalent in English.

D. Bennett

T.R.A.

ENG 3067G The Open Road in North American Narrative

An investigation of the myth of the open road in North American writing. The course will focus on the way the road has served to organize American narratives, in contrast to more ambivalent Canadian responses to the road. Reading will comprise approximately six full-length works (including Twain, Huckleberry Finn, Kerouac, On the Road, and Vandaerleughe, The Englishman's Boy) and some additional selections.

T.R.A.

ENG 3067D Between Traditions and Predominances: Writing by Canadians of Asian Descent

A study of lines of influence on writing by Canadians of Asian descent. As a case study, this course will focus on the ways in which writers of Asian descent in Canada - writers whose only point of commonality may well be their shared Canadian citizenships -- accept and reject the shaping influence of the multiple environments in which they exist. Through term projects, students will have the opportunity to work on such questions as the influence of acquired and inherited social and artistic traditions; the effect of working with the complex of today's media, and the role audiences play in shaping the literary text.

In-class texts will include books by such writers as Lee, Ondaatje, Milosz, Wha, Chey, Kogawa, Saito, and Oka, as well as the works of Ami Bera, Margaret Laurence. This seminar will require both individual and group work; oral and written presentations; and reading beyond those texts considered in class.

Limited enrollment: 24

Prerequisites: ENG 350Y or one further full-course equivalent in English or ENG 350Y and one C-level full-course equivalent in English.

D. Bennett

ENG 3060Y Virginia Woolf

A study of the works of Virginia Woolf in the context of current theoretical debates. Virginia Woolf once said of the historian Edward Gibbon, "He has a point of view and sticks to it," whereas she said of herself, "I wobble." This course will consider Virginia Woolf's "wobble" and the challenges it presents both for the reader and the interpretation of her works. We will examine a variety of interpretive contexts: theories about the breakdown of 19th-century stable realities; the fragmentation of a new city consciousness; the effects of new media, the destabilization of cultural norms, particularly those of the gendered subject and of empire; feminine difference versus feminine subversion. We will ask whether the wobble signals cultural decay or a new ethical pluralism. It is expected that the course will itself wobble in interpretation. 

Texts will include: Jacob's Room, Mrs. Dalloway, To the Lighthouse, Orlando, Between the Acts (please obtain the new Penguin editions). A course anthology of selected critical/theoretical readings will be available from the instructor.

Prerequisites: ENG 350Y or one further full-course equivalent in English.

M. Cuddy-Kratz

ENG 3060Z Satire

A study of the theory and literature of satire. This course will examine the historical theory and theory of satire from classical times to the present, in its cultural and political contexts. We will distinguish between the satiric, comic, ironic, and parodic modes. Under what conditions do satiric genres arise, and how do they work in the contemporary world? Is satire culturally specific?

Readings will include examples of classical and modern satire, articles of criticism and literary theory. In addition to examining the satirical works of Florence, Juvenal, Pausanias, readings may include a
French

(B.A.)

Faculty List

- L.E. Doucette, B.A. (London), Ph.D.
- C. Beckett-Jennings, B.A., B.S., Ph.D.
- W.J. Benett, M.A. (Montreal), Ph.D.
- J.A. Curtis, M.A., M.P.H. (Toronto), Associate Professor
- S. Mitter, M.A. (Toronto), Ph.D.
- F. Marchand, M.A. (Ottawa), Ph.D.
- F. Godin, Senior Tutor


The French programme is offered in the Humanities and Social Sciences, with a focus on French culture and language. The programme allows students to explore diverse aspects of French culture, literature, and society. Students have the opportunity to study French culture in its various dimensions, including literature, art, and history. The programme is designed to provide students with a solid foundation in French language and culture, preparing them for careers in various fields or further academic pursuits.

Specialized Programme: Education of Teachers in France

Co-ordinator: F. Magner

This one-year programme is designed and offered jointly by the Division of Humanities, University of Toronto at St. Michael's College, 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. This programme is designed for students with a strong interest in French culture and language. The programme includes coursework and practical experiences in France, providing students with a comprehensive understanding of French pedagogy and classroom practices. It is an excellent opportunity for students interested in teaching French at the elementary or secondary level.

French Bachelor of Arts (B.A.)

The French Bachelor of Arts (B.A.) programme is designed for students with a strong interest in French literature, culture, and language. The programme requires a minimum of 120 credits and includes a combination of core courses and electives. Students are encouraged to explore various aspects of French culture, including literature, art, and history. The programme provides a solid foundation in French language and culture, preparing students for careers in various fields or further academic pursuits.

French Language Programmes

Co-ordinator: F. Magner

This programme is designed for students with a strong interest in French culture and language. The programme includes coursework and practical experiences in France, providing students with a comprehensive understanding of French pedagogy and classroom practices. It is an excellent opportunity for students interested in teaching French at the elementary or secondary level. The programme is offered at the University of Toronto at St. Michael's College 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.
MINOR PROGRAMME IN FRENCH FOR FRANCOPHONES

MINOR PROGRAMME IN FRENCH

Students should complete four full-course equivalents in French, excluding PRE8009, PRE8007 and (at least one F.C.E. must be at the C-level).

PRE8010Y Language Practice I

Reinforcement and development of the language skills under study, reading, writing, and speaking—necessary for higher-level courses.

The course consists of a grammar review with written and oral exercises, reading and discussion of a variety of texts representing different francophone cultures and various everyday topics and exercises. The class meets four times a week and, in addition, will do four hours of spoken and listening with recorded material. This course is a prerequisite for C-level courses in the French discipline at University of Toronto at Scarborough, excluding PRE8009, PRE8007 and PRE8006 (for students enrolled in a French Program).

For students planning to specialize in French, PRE8009 is recommended as a companion course.

Eligibility: Native or near-native proficiency in French; PSL140Y, PSL180Y, PSL181Y Prerequisite: OAC French or Grade 13 French or (PRE8006) or equivalent. J. Curtis and Staff Offered: 2000/2001

PRE8006Y Introduction to Literature in French

A course of representative works from major periods and areas of the literature of France and French-speaking Canada. Students will be introduced to the major periods and themes of French literature through the study of major French authors.

Eligibility: Native or near-native proficiency in French; PSL140Y, PSL180Y, PSL181Y Prerequisite: OAC French or Grade 13 French or (PRE8006) or equivalent. A. Giguere Offered: 2000/2001

PRE8170Y Intermediate Conversation

Intensive practice in the spoken language through continuous emotional, oral and written discussion groups. Attention will be given to the development of a variety of linguistic skills, including speaking in the daily context.

Eligibility: Native or near-native proficiency in French; PSL140Y, PSL180Y, PSL181Y. Prerequisite: OAC French or Grade 13 French or (PRE8006) or equivalent. C. Bertrand-Jennings / P. Mattson Offered: 2000/2001

PRE8010Y Practical Translation

Texts from fields such as literature, business, politics, law, science, technology, art, and advertising will be translated, analyzed, and discussed in term of style and expression. Class time is devoted to the practice of the student's proficiency, based on the many types of differences between French and English. Exclusion: FTR40Y, FTR490Y, FTR448Y Prerequisite: PRE8107Y or equivalent T.B.A.

PRE8107Y Language Practice II

A continuation of PRE8107Y. This course is concerned with the development of fluency, accuracy of expression, and style, through the study of grammar, composition, translation, readings. Course work can be supplemented by audio and videotapes.

Eligibility: PRE8106, native proficiency in French; PSL136Y, PSL132 Prerequisite: PRE8106Y or equivalent W. Janczak and Staff Offered: 2000/2001

PRE8110Y French Language Learning in the School System

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. Eligibility is limited to students already admitted to the Education of Teachers in French Programme. This course should ideally be taken during the first year to avoid tangible conflicts which might arise as a result of trying to schedule the practicum component of the course. Prerequisite: Pre8106Y or equivalent. A. Giguere Offered: 2000/2001

MAJOR PROGRAMME IN FRENCH

Supervisor: J. Curtis

The MA program in French provides a simple structure that students can readily continue to meet their needs. The Supervisor of Studies welcomes opportunities to help students tailor a flexible programme to match their strengths and goals.

Students must complete seven full-course equivalents in French.

1. PRE8107Y and PRE8110Y (except where the substitution of one of the former is possible for the purpose of specialization in the French language).

2. One further full-course equivalent in language.

Language courses are: FREN8009, FREN8107, FREN8106, FREN841Y, FREN8007, FREN8006, FREN8100, FREN8005, FREN8004 and FREN8003.

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

Literature courses are: FREN8003, FREN8007, FREN8009, FREN8100, FREN8005, FREN8004, FREN8009, FREN8007, FREN8003, FREN8005, FREN8004, FREN8009, FREN8007, FREN8009, FREN8007, FREN8003, FREN8005, FREN8004 and FREN8009.

Three additional full-course equivalents in French.

Students may desire to gain a "classical" major in French studies with a language and literature focus by including PRE8009Y and one and one half full-course equivalents in literature in their programme.

Those wanting a major with a business focus should include one full-course equivalent from PRE8009Y, PRE8007Y and/or PRE8003Y as well as an additional literature course in their programme.

Students wanting a major with an international breadth should include one full-course equivalent from PRE8009Y, PRE8007Y and/or PRE8003Y as well as one full-course equivalent in French and/or French Canadian and/or francophone literature (PRE8009Y can serve this purpose) and one-half F.C.E. in each of French, Canadian and/or francophone literature.

Those wanting a major with arts and culture breadth should include two full-course equivalents in literature and culture, in addition to the course(s) used to fulfill requirement (3) of the major. Consult the Supervisor of Studies.

NOTE: Only courses for which the student does assignments in French can be counted toward a French programme; at the A-level, only PRE8107Y and PRE8110Y may be counted.

The Supervisor of Studies will provide students who complete a major in any of these streams (French Studies, French and Business, International Studies, French and the Arts) with a letter explaining their programme. Such a letter would be useful when applying for a job or for admission to a post-graduate programme. Students interested in graduate studies in French however, should be aware that they probably need further course work in French.)
that students may acquire a reasonable degree of confidence when speaking about everyday life and contemporary topics.

Enrollment Limit: 30
Exclusion: FSL287
Prerequisite: FREA10Y or equivalent
T.R.A.
Credit for FRSB17 is also available in the summer under Study Elsewhere.

FREB1970 Commercial French
The French language in a commercial or economic context.
This course is of interest to students in French, Business, Accounting, Computer Science, Economics and Management, and to all who wish to improve their skills in preparation for entry into a specialized area of the job market. Class meetings will be devoted, among other things, to correspondence writing and to exercises that include the vocabulary and structures involved in the language of business. In order to provide the student with the basic elements of commercial techniques as practiced primarily in the Canadian francophone business community, the text will be Resnick and Etchells: Pratique des affaires et correspondance commerciale en français. Exclusion: FSL366
Prerequisite: FREA10Y or permission of the instructor
W. J. Bancroft

FREB2270 Introduction to French Linguistics
A study of the linguistic structure of French and of linguistic theories from the beginning of the twentieth century as applied to modern French.
This course will focus on an examination of the French language in its synchronic functioning, with emphasis on phonology, morphology, syntax and semantics. There will also be discussion of practical applications of linguistic analysis to the teaching/learning of French as a second language. Exclusion: FRSB272
Prerequisite: FREA10Y or equivalent
T.R.A.
Not offered: 2000/2001

FREB2370 20th-Century France
An examination of political, social and cultural developments in France in the last hundred years.
Topics will include: the impact of the two World Wars; the decolonization process; France and its relations with West Africa, the European Community and the Third World; the main artistic and intellectual currents; the media; the educational system; etc. This course is designed to interest both specialists and non-specialists.
Exclusion: FRSB311
Prerequisites: FREA10Y or equivalent, or permission of instructor.
F. Magnier
Not offered: 2000/2001

FREB280Y The Francophone World
An examination of historical, political and cultural realities in the French-speaking West Indies, Europe, Africa and South-East Asia. Topics to be discussed will include slavery, colonization, denationalization and multilingualism. Artistic and intellectual developments will be studied, based on written and audio-visual material. The course is designed to interest both specialists and non-specialists.
Exclusions: FREB252, 253
Prerequisite: FREA10Y or equivalent, or permission of instructor.
F. Magnier
Not offered: 2000/2001

FREB3010 Francophone Literature
A study of a variety of literary texts from the French-speaking world, excluding France and Canada.
Attention will be given to the cultural and historical background as well as to the close study of works from areas including the West Indies, North and West Africa. Exclusion: FREB424
Prerequisite: FREA10Y or equivalent
Companion: FRES540 or (FRUS50)
F. Magnier
Not offered: 2000/2001

FREB4973 Theoretical and Practical Phonetics
A study of modern French pronunciation.
This course will comprise the following: general principles of French phonetics, phonetic readings, phonetic transcription, corrective pronunciation, the study of the relationship between spelling and pronunciation, and recordings by students themselves. Students will also become familiar with different accents of the French-speaking world. Basic textbook and taped required. Exclusion: FREB277
Prerequisite: FREA10Y or equivalent.
C. Bermond, Lectures and Staff

FRES5440 Before the Revolution
A look at how the works of some of the most influential writers of seventeenth- and eighteenth-century France reflect and change the society of their times.
How did France get from the ordered, civilised world of the Sun King to Liberty, Equality, Fraternity? The study of some of her greatest writers allows us to trace this evolution. Texts are drawn from the fields of drama, the novel and the tale. Topics include: Classical standards and Enlightenment attitudes; the effect of contact with the Middle East and the New World; the role of women in intellectual life. Lectures/Discussions are conducted in French. Recommended preparation: some literary study, such as FRES50
Exclusion: FRES513H, FRES536H, FRES510Y, FRES527V
Prerequisite: FRES510Y or equivalent
L. Curze
Not offered: 2000/2001

FRES598Y French and Francophone Fiction and Film
A study of some important works of French and francophone fiction and their cinematic counterparts.
A number of today's commercial and/or artistic successes in the film industry owe their origins to works of French/Francophone literature.
This course will focus on several works of French and francophone fiction and examine the differences between the literary work and its transformation into a film version. Works/films (to a maximum of five) will be selected from among the following: Le Rouge et le Noir; Madame Bovary; Les Trois Mousquetaires/The Three Musketeers; L'Assommoir/Germaine; Journal d'un Curé de Campagne; La Guerre de Mon Père; La Rue Causée; Roses; Marie Chapdelaine.
Lectures for this course (and accompanying discussions) will be conducted in English. Videotapes of films feature English subtitles or dialogue in English. Students who wish to receive a credit for French programme, however, will be required to do readings, essay (A, B, C), and exam in French.
Prerequisite: FRES510Y or FRES580Y for students enrolled in French program; or three full A-level courses or permission of the instructor.
W. J. Bancroft
Not offered: 2000/2001

FRES6050 Exercises in Interpreting
A course for students preparing to use oral French for job and other context-related purposes.
Starting from the premise that second-language students use primary language as a reference point, small groups will work in class in "real-life" situations (e.g. legal cases, social work, immigration, business meetings, professional conferences). The focus will be on retention, accuracy of expression, lexical resourcefulness, cultural "informing" and speed of delivery.
Enrollment Limit: 20
Prerequisite: FRES171H or permission of the instructor
T.R.A.

FRES609H Comparative Stylistics
A comparative study of expression in English and French, including practice in translating and analysis of selected examples of the translator's art.
The course uses a series of exercises to take a close look at French and English vocabulary and structures, and alerts the student to the pitfalls that must be avoided by those who work with related languages. Exclusion: FTR171Y
Prerequisite: FRES10Y (FRES308H is recommended preparation).
J. Curze
Not offered: 2000/2001

FRES619Y Language Practice III
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 test summaries, compositions, error analysis, review of specific grammar points and dictation of recorded material, articles and films.
Exclusions: FSL316Y, FSL326Y, FSL386Y, FRES311H, FRES313H, FRES304H
Prerequisite: FRES10Y or equivalent
P. Fouquet

FRES6110 Teaching French as a Second Language
A study of current theories of language teaching and learning and their application to the teaching of French as a second language. Topics include communicative competence, traditional and innovative methods and approaches, and the development of teaching materials. Theoretical and practical sessions are conducted in French.
Exclusion: FRE048
Prerequisite or Companion: One full-course from the sequence FRES120Y/FRES205 or FRES120
W. J. Bancroft
GGRB3H3 Planning in Canada

After reviewing the history of urban and regional planning in Canada, this course considers alternative ideologies, models of public choice, the role of the planner, the instruments of planning, tools for the analysis of planning, and planning in the context of the space economy. This course provides an understanding of planning as currently practiced, and introduces students to the principal tools used by planners. Two hours of lectures per week.

Prerequisite: ECOA02

GGRB3H3 Location and Spatial Development

Application of competitive location theory to explain economic landscapes. Topics include Hungarian rents and spatial equilibria, trade flows and spatial price equilibrium, geographic market area and spatial pricing policies, location of a firm with mobile resources, and trade theory and regional specialization. Two hours of lectures per week.

Exclusion: GGRB20

Prerequisite: ECOA02

J. Miron

GGRB3H3 Countryside Conservation

This course will consider the problems of conservation of natural and human landscapes of rural areas, and their impact on rural planning. Topics include: urban containment, agricultural land preservation, land protection, conservation of natural environments and rural heritage, and the management of countryside resources. Field work and case studies will be an integral part of the course.

Prerequisite: One of GGRB01, GGRB17 or EGRB1

M. Bunce

GGRB2H3 Problems in Modern Agriculture

Agricultural Land Use

Examination of the land use problems created by rapid changes in modern agriculture. Emphasis will be placed on the impact of the capitalist production of agriculture on the environment, economic and social consequences are considered in both developed and less developed countries and regions.

Prerequisite: One of (GGRB17 or EGRB1) or (IDS601 & IDS605)

M. Bunce

GGRC2H3 Development and Planning of Metropolitan Regions

An advanced analysis of the recent growth of metropolitan regions, its causes, efficient urban scale, social goals and planning, public policy issues, as well as the tools, rules and impacts of public planning policies. Course examine insights gained from contemporary empirical research. Three hours of lectures per week.

Prerequisite: One of GGRB05, GGRB06, GGRB07, ECOA03

J. Miron

GGRC4H3 Social Geography

An exploration of reciprocal relations between spatial structures and social identities. The course will examine some of the major research themes in contemporary social geography. The central premise of this course is that the social divisions of class, race/ethnicity, gender and sexuality not only help shape the identities and activities of people but also play important, interrelated roles in the geographies of cities and regions. However, space is not only the arena for the construction of social divisions and relations, but also conditions their nature. In other words, the geographies of these social divisions are not just the spatial manifestation of the social forces that generated them, spatial structures play an active role in their very construction. This course will draw on geography literature published in North America and Britain.

Exclusion limit 30

Prerequisite: GGRB05 or another Social Science or Women's Studies B-level course with permission of the instructor.

T.B.A.

GGRD1Y3 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 possible field work in the summer prior to formal registration in the course. Projects will be designed to allow the student to pursue independent research. Three hours of field work per week.

Exclusion: GGRB13

Prerequisite: GGRB04 & one IDS-level course equivalency in Human Geography

T.B.A.

GGRD3H3 Development and Planning of Metropolitan Regions

An advanced analysis of the recent growth of metropolitan regions, its causes, efficient urban scale, social goals and planning, public policy issues, as well as the tools, rules and impacts of public planning policies. Course examine insights gained from contemporary empirical research. Three hours of lectures per week.

Prerequisite: One of GGRB05, GGRB06, GGRB07, ECOA03

J. Miron

GGRD4H3 Social Geography

An exploration of reciprocal relations between spatial structures and social identities. The course will examine some of the major research themes in contemporary social geography. The central premise of this course is that the social divisions of class, race/ethnicity, gender and sexuality not only help shape the identities and activities of people but also play important, interrelated roles in the geographies of cities and regions. However, space is not only the arena for the construction of social divisions and relations, but also conditions their nature. In other words, the geographies of these social divisions are not just the spatial manifestation of the social forces that generated them, spatial structures play an active role in their very construction. This course will draw on geography literature published in North America and Britain.

Exclusion limit 30

Prerequisite: GGRB05 or another Social Science or Women's Studies B-level course with permission of the instructor.

T.B.A.

GGRD1Y3 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 possible field work in the summer prior to formal registration in the course. Projects will be designed to allow the student to pursue independent research. Three hours of field work per week.

Exclusion: GGRB13

Prerequisite: GGRB04 & one IDS-level course equivalency in Human Geography

T.B.A.
History
(3A)

Faculty List
J.A. Male, M.A., Ph.D. (Toronto), D.D. (Princ. College, Montreal), Professor Emeritus
E.W. Dowler, A.M. (Harvard), Ph.D. (London School of Economics), Professor
M. Etienne, B.A. (Toronto), B.Phil., D.Phil. (Oxon.), Professor
M. Grevers, M.A. (Pittsburgh), Ph.D. (Toronto), Professor
J.R. Robertson, M.A. (McGill), Ph.D. (Toronto), Professor
L.J. Abrey, M.A. (McMaster) M.Phil., Ph.D. (V'The), Associate Professor and Chair
P. Jacobson, M.A., Ph.D. (York, Canada), Associate Professor
J.L. Pearl, M.A., Ph.D. (Northwestern), Associate Professor
A.N. Sheps, M.A., Ph.D. (Toronto), Associate Professor

Discipline Representative: E.W. Dowler
(285-7105)

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. It findings depend upon the precise evaluation of specific evidence. History's concerns and goals are humanitarian; its methods draw from all forms of scholarly endeavor. History courses, therefore, can play a part in a number of interdisciplinary programs and can serve as an adjunct to courses in Politics, Philosophy, Literature, Economics, Sociology, and Anthropology. History can also be suitably combined with language study.

The History curriculum combines a variety of approaches and teaching in order to satisfy a number of purposes. HIS00Y 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 (HIS002-09) provides a comprehensive foundation of knowledge in particular areas. In upper-level courses students investigate more specific areas, periods, or problems. D-sequence courses are conducted in seminars. In these students make close and thorough studies of particular questions and present their findings in discussions and major essays. There are courses at all levels in the following areas and periods of history: Medieval Europe, Modern Europe, Britain, Canada, America, and the United States, Russia, Ancient Greece and Rome, Africa and Latin America.

SPECIALIST PROGRAMME IN HISTORY
(3A)

Supervisor: A.N. Sheps (285-7105)

1. Number of Courses
   Students must complete at least ten full-course equivalents in History. These ten
   must include HIS00Y (or HIS01Y) and five upper-level full-course equivalents
   (C- to D-level courses on the Scarborough Campus, 300/400-level courses on the
   St. George Campus). At least one of the five must be a D-/400-
   level course.

2. Pre-1815 Courses
   Of the ten 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 and Latin American
      VI. Ancient Greek and Roman
   b. Students must complete at least one course to study History in
      Canada.

MINOR PROGRAMME IN HISTORY
(3A)

Supervisor: A.N. Sheps (285-7105)

1. Number of Courses
   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- and/or D-level.

   NOTE: Students are advised to consult the
   prerequisite for C-level and D-level courses
   when planning their individual programmes.

HIS02Y The Twentieth Century World
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: HIS101

HIS02Y British from the Eighteenth
Century to the Present
An examination of the political, social,
economic, and religious forces which
transformed an agrarian society into an
industrial power, and of the reasons for the
decline of British power in the twentieth

The course will be concerned with the
problems caused by the transformation of an
agrarian into a highly industrialized economy,
of an aristocratic into a liberal democratic
society, and of a society based on the
ideology of the Enlightenment into one
dominated by the capitalist ethic of
humanitarianism. It will also consider why,
in the twenty-first century, the British abandoned
their imperial role and concentrated on the
establishment of a welfare state.

Exclusion: HIS239

HIS03Y History of the United States
Major themes from the Revolution to the present.

The course will focus on such questions
as independence, political organization, political parties,
territorial expansion, nationalism and
sectarianism, reform movements, the slavery and
civil rights question, the response to
industrialization, European expansion, and the
United States as a world power.

Exclusion: HIS271

American Area
A.N. Sheps (285-7105)

HIS04Y Canadian History
The history of Canada from the first European
contacts to the present.

Topics studied include: exploration and
colonization; the institutions and life of New
France; the British Conquest and its results;
the consequences of the American Revolution;
British settlement; Confederation and the
constitution; changing patterns of government;
the impact of two world wars; the Great
Depression of the 1930s; Americanization and
regionalism; most of the current crises in
relations between English-speaking and French-speaking Canada.

Exclusions: HIS200, 201, 202, 203

Canadian Area
I.R. Robertson

HIS05Y Europe in the Middle Ages
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 civilization, civilization, and
subsequent expansion of Europe. Particular
attention is paid to the particular circumstances which
determined national boundaries and which led to the divisions and
conflicts of the modern world, and (ii) to the origins of our own
religion, legal, educational and political institutions.

Exclusion: HIS102

Pre-1815 credit

Medieval Area
M. Grevers (285-7105)

HIS06Y Russia from the Sixteenth
Century to the Present
The Russian people, state, and culture,
with emphasis on the internal social, institutional,
and ideological changes from the rise of
Moscow to the present.
HSC5445 Revolutionary America, 1760-1790
A seminar investigating the origins, cause and effect of the American Revolution.
Attention will be paid to the social and political organisation of America, the political ideas of the Revolution, revolutionary changes in the new states, the significance of the Constitution, and the effect of the revolution on Canada and Britain.
Exclusion: (H5304) H5322Y, H5323Y
Prerequisite: Any use of H5302 or H5303 or H5304
0.5 Pre-1815 credit
American Area
A.R. Skipper

HSC5465 Twentieth-Century America
A topical survey of the United States since the turn of the century.
A traditionally rural culture of individual opportunity and national individualism face the problems created by urbanization, ethnicity, industrialization, and world power.
Exclusion: (H5355) H5372
Prerequisite: H5303
American Area
T.B.A.

HSC5376 The Black Experience in the United States Since the Civil War
A survey of the economic, social, political, and cultural history of Black Americans from Reconstruction until recent times.
Exclusion: (H5304) H5305
0.5 Pre-1815 credit
Canadian Area
I.R. Robertson

HSC5383 Black Canadian History, 1800-1919
An examination of the history and presence of people of African descent from their earliest known arrival in Canada to the end of World War 1, placing the Black Canadian historical experience within the context of Canadian history.
Topics will include: black immigration, slavery in New France, British North America and Canada, the impact of American slavery, Canadian post-slavery movements, and Caribbean immigration, the growth and development of Black communities, and their religious, educational and political experiences and institutions.
Prerequisite: H5304
T.B.A.

HSC5413 Topics in Caribbean History
A course exploring various aspects of Caribbean History.
In 1900/1900, the topic will be the Indian diaspora in the Caribbean, c. 1840 to c. 1960. For the 19th century, indentured immigration will be considered as a means of supplying labour to British, Dutch, and French colonial sugar plantation economies. In relation to the 20th century, emphasis will be placed on "Creolization" of the Indo-Trinidadian and Indo-Guyanese communities as their countries moved, by quite distinct routes, toward independence.
The course will embrace a lecturediscussion format. As the topics develop, individual or small groups will prepare readers for full study in the course.
Prerequisite: H5341
American Area
J. Pear

HSC5420 The Sixteenth Century Religious Reformation
Exclusion: (H5301) H5302
Prerequisite: H5301 or H5302
0.5 Pre-1815 credit
European Area
J. Pear

HSC5423 Sixteenth Century Religious Reformation
A seminar investigating the origins, cause and effect of the Reformation.
Attention will be paid to the social and political organisation of Europe during the Reformation.
Exclusion: (H5301) H5302
Prerequisite: H5301 or H5302
0.5 Pre-1815 credit
European Area
J. Pear

HSC5424 Sixteenth Century Religious Reformation
Exclusion: (H5301) H5302
Prerequisite: H5301 or H5302
0.5 Pre-1815 credit
European Area
J. Pear

HSC5429 Eighteenth Century
A topical survey of the United States since the turn of the century.
A traditionally rural culture of individual opportunity and national individualism face the problems created by urbanization, ethnicity, industrialization, and world power.
Exclusion: (H5355) H5372
Prerequisite: H5303
American Area
T.B.A.

HSC5430 Twentieth-Century America
A topical survey of the United States since the turn of the century.
A traditionally rural culture of individual opportunity and national individualism face the problems created by urbanization, ethnicity, industrialization, and world power.
Exclusion: (H5355) H5372
Prerequisite: H5303
American Area
T.B.A.

HSC5430 Twentieth-Century America
A topical survey of the United States since the turn of the century.
A traditionally rural culture of individual opportunity and national individualism face the problems created by urbanization, ethnicity, industrialization, and world power.
Exclusion: (H5355) H5372
Prerequisite: H5303
American Area
T.B.A.
The College Programme in the Humanities has been withdrawn.

Every effort will be made to allow students who registered before September 1993 to complete it at this campus. Please consult with the Associate Chair in HUM 2713-318.

HUMAN 045 Writing Practicum: A Course for Non-Native Speakers of English

A complement to HUMAN 044, this course is designed to provide small groups of students with intensive hands-on practice in identifying the purpose of various written assignments; choosing appropriate topics; generating, developing, and organizing ideas; and conducting research using library, computer, and Internet resources. Students will also be given special instruction in editing drafts for grammatical and mechanical problems. Assignments are to reflect materials and principles studied in HUMAN 044.

Complementary: HUMAN 044
T.E.A. Offered every year

HUMAN 047 Current Approaches to the Academic Writing Process: A Course for Non-Native Speakers of English

A study of the conventions of academic written discourse. Designed especially for learners of English as a second language, this course shows how principles of exposition and argumentation can be applied to writing in a variety of disciplines. The course highlights the importance of relevant content, coherence, and standard documentation in academic writing of various types: using samples to illustrate some of the differences between good and bad writing. Students are also introduced to different methods of conducting research, as well as ways of avoiding plagiarism in their writing.

Prerequisite: Permission of the instructor. Screening interview required, normally by August 20. Call 271-7122 for further details.
Complementary: HUMAN 049H
T.E.A. Offered every year

HUMAN 117 Introduction to Canadian Culture and Society: A Course for Non-Native Speakers of English

A thematic and locational study designed to introduce students who speak English as a second language to the study of Canadian culture and society through guest lectures, seminar discussions, and excursions to multicultural sites. Topics include

International Development Studies

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

T.E.A. Offered in other courses;

Co-ordinator: J. Maxwell (271-7113)
Supervisor of Studies: Susan Horton (271-7109)

Co-ordinator: J. Maxwell (271-7113)
Supervisor of Studies: Susan Horton (271-7109)

International Development Studies Office

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.
In the first two years of study students must complete as much of the common core programme and language studies as possible. Students must choose their regional and language option (Section C) no later than year 2 and their advanced option (Section E), no later than the beginning of year 3. Students are strongly advised to complete at least one full-course equivalent in core programme science courses each academic year prior to placement.

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:

Twelve full-course equivalents including:

- A Core Programme: at least eight and one-half full-course equivalents from:

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

<table>
<thead>
<tr>
<th>L. Required:</th>
<th>ANT100H</th>
<th>Anthropological Perspectives on Development</th>
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<tbody>
<tr>
<td></td>
<td>BOY01Y</td>
<td>Introductory Biology*</td>
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<td></td>
<td>ECA00Y</td>
<td>A half course in biology chosen in</td>
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<td></td>
<td>EBS00H</td>
<td>Introduction to Economics</td>
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<td></td>
<td>EBS01H</td>
<td>Introduction to Environmental Science</td>
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<td>EBS02H</td>
<td>Principles of Hydrology</td>
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<td></td>
<td>EBS03H</td>
<td>Introduction to Hydrology</td>
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<td>EBS05H</td>
<td>Introduction to Soil Science</td>
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<td>EBS09H</td>
<td>Biotechnology</td>
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<td>EBS10H</td>
<td>Remote Sensing and Geographic Information</td>
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<td>EBS11H</td>
<td>Environmental Impact Assessment</td>
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<td>EBS12H</td>
<td>Soil Erosion Control</td>
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<td>EBS13H</td>
<td>International Development</td>
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<td>EBS14H</td>
<td>Studies: Political Economy</td>
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<td>EBS15H</td>
<td>Issues in Rural Development</td>
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Students in the Environmental stream take one of the hydrology courses.

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

Students interested in pursuing further Biology courses are advised to select

BOY01Y

B Advanced Option: 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.Sc. degree and those who follow the Social Sciences stream will be recommended for the B.A. degree.

<table>
<thead>
<tr>
<th>L. Social Science Stream</th>
<th>ANT300H</th>
<th>Economic Anthropology</th>
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<tr>
<td></td>
<td>ANT301H</td>
<td>Environmental Anthropology</td>
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<td>ANT302H</td>
<td>Cultural Anthropology</td>
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<td></td>
<td>ANT310H</td>
<td>Medical Anthropology: Illness and Healing</td>
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<td></td>
<td>ANT320H</td>
<td>Cultural Anthropology: Cultural Perspectives</td>
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<td></td>
<td>ANT321H</td>
<td>Biological and Demographic Perspectives</td>
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<td></td>
<td>ANT330H</td>
<td>The Anthropology of Food</td>
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<td></td>
<td>ANT340H</td>
<td>The Anthropology of Food</td>
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<td></td>
<td>ECO302Y</td>
<td>International Economic Institutions</td>
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<td></td>
<td>ECO307H</td>
<td>Economic Development</td>
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<td></td>
<td>ECO308H</td>
<td>Development Policy</td>
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<td></td>
<td>GGB02H</td>
<td>Issues in Rural Development</td>
</tr>
</tbody>
</table>
Section I

Students must take all three and one-half full-course equivalents.

ECMA09Y Introduction to Economics
EBSA01H Introduction to International Development
EDBS02H International Development Studies: Policy
POLB01Y Comparative Politics of International Development

Section II

Students must take four and one-half full-course equivalents with at least one full-course equivalent from the following groups:

A. SOCIAL/CULTURAL PERSPECTIVES

ANTB01Y Ecological Perspective in Anthropology
ANTB03H The Americas: An Anthropological Perspective
ANTB05H Women and Development

B. POLICY ISSUES

ANTC03H Economic Anthropology
ANTC04H Anthropology of Food: Human Needs
ANTC05H Anthropology of Food: Consuming Passions
POLB01Y Politics and Society in Latin America

1.5 P.C.E. from Section II for the Major

PROGRAMME IN INTERNATIONAL DEVELOPMENT STUDIES

Supervisor: S. Horton (287-7109)

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

MAJOR PROGRAMME IN INTERNATIONAL DEVELOPMENT STUDIES

Supervisor: R. Horton (287-7109)

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

PROGRAMME IN INTERNATIONAL DEVELOPMENT STUDIES

Supervisor: R. Horton (287-7109)

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

- Environmental Law
- Environmental Economics

One F.C.R.** from among the following groups (see courses listed under each of these groups in the Faculty of Arts & Science etc.):
- Social Sciences
- Life and Physical Sciences
- JD and Humanities

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

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

Introduction to Environmental Science

Refer to Environmental Science for description.

International Development Studies: Political Economy

Introduces students to major development problems, focusing on international economic and political factors. The course examines trade, aid, international institutions such as the World Bank and the IMF, the GATT and how these affect developing countries. The course examines both conventional economic perspectives as well as critiques of these perspectives. Some country case studies may be used to illustrate different approaches to development. This course can be counted for programme credit in ECOM programmes.

Prerequisites: ECOM 4 or ECOM 407 (ECOM 406 or ECOM 407) or permission of the instructor.

International Development Studies: Development and Environment

An introduction to the environmental consequences of development activities, with emphasis on tropical countries. Changing environmental conditions are explored in a number of specific contexts: urban, rainforest, semi-arid, wetland and mountainous regions. 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 agriculturally productive

International Development Studies 79

- International Health Policy

Introduces health policy analysis in developing countries, drawing comparisons to the industrialized world. 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 issues of equity and efficiency). Case studies of different models of health care will be examined (for example: China, India). Participants will also obtain experience with some practical tools of health policy analysis, such as cost-benefit and cost-effectiveness analysis. This course can be counted for programme credit in ECOM programmes.

Prerequisites: ECOM 40 or ECOM 407 (ECOM 406 or ECOM 407)

Economics of Small Enterprise and Microcredit

Considers the role of small enterprises, including microenterprise and small/medium enterprise, focusing mainly but not exclusively on the non-agricultural sector, in the development process. Compares the workings of such units to that of larger firms. Examines factors contributing to the role of small firms in employment creation and a more equitable distribution of income. Uses models which contribute to these outcomes, including various types of micro/credit systems. This course can be counted for programme credit in ECO and ECOM programmes.

Prerequisites: ECOM 40 or ECOM 407 (ECOM 406 or ECOM 407)

Limited Enrolment: 60

International Development Studies Degree Work Placement Term

The IDS work placement is an integral part of the Co-op curriculum and is designed to provide students with practical hands-on experience of the development process in a Third World field setting. Students are placed at internships with Canadian or local development agencies or universities in a developing country for 10-12 month period. Students are required to submit progress reports every 2 months and begin work on a major research project based on their work placement experience. To be eligible for placement, students must have completed 12 full credits including 12 IDS credits. These 12 must include 10 credits from sections A and B (5 of which at minimum 7.5 must be from Section - A) plus regional and language requirements. 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 20 full course degree requirement and are graded on a Credit, No Credit system. There are no additional course fees for work terms.

Project Management

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 National Governmental Organizations (NGOs) engaged in the delivery of development assistance. The integration of gender and development and environmental issues into the project process will be discussed.

CIDA's policies and practices governing project administration as well as its project management model will also be examined. Students will carry out field visits to local development NGOs and analyze the project approach used by the agency. Practicing professionals will also be invited to talk about development issues and project management.

Prerequisites: IDS 200 or permission of the instructor.

The Ethics of Development

An examination of the theoretical foundations of ethics of development, particularly the ethics of aid and intervention. The course will consider the ethical dimensions and problems related to development planning, including the policies and practices of major international institutions, national governments, and independent NGOs. Case studies will be used to evaluate the ethical dimensions of specific development projects and policies, and guest lectures by individuals directly involved in the aid and development industries will be used to supplement and complement classroom materials.

Prerequisites: IDS 200 or IDS 300 or ANT 40 of PHIL 301 or PHIL 401
Language Studies (EA)

Students interested in language studies should contact the Study Abroad Program for courses offered in French, Spanish, and Linguistics.

Specialist Program in Management and French

Registration in this program is limited. Please refer to the Management section of the Calendar for details.

The Management and Humanities Division has co-operated to develop a joint program in Management and French. The Management requirements for any of these programs are the first five requirements for the Specialist in Management.

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

- A. FREN10, FREN10, one full-course equivalent from FREN10, FREN12, FREN12, FREN22, FREN24
- B. At least one full-course equivalent from FREN10, FREN12, FREN22

Linguistics (BA)

Faculty List
- J.L. Binnie, B.A. (CUNY), M.A., Ph.D. (Chicago), Professor
- D.M. James, B.A. (U.B.C.), M.A. (Cornell), Ph.D. (Michigan), Associate Professor
- J. Smyth, B.A. (Corkon), M.S. (Alberta), Ph.D. (Alberta), Associate Professor
- J.D. Woods, B.A. (Bowdoin Col.), Ph.D. (Mass.), Associate Professor

Program Coordinator: J.D. Woods

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), meanings (semantics), and texts or conversations (pragmatics). 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 over time, and why); and applied linguistics (e.g., second language learning, translation, clinical linguistics).

The Major Program in Linguistics is designed to help students prepare for entry into professional programs in areas with a significant language component, such as speech-language pathology, education, and language teaching. In many cases, a combined Major in Linguistics and another discipline (e.g., Psychology, Cognitive Science, Computer Science, or a language) will provide the best preparation. However, students whose interests lie in the area of theoretical linguistics, and who wish to complete a Specialist degree after their Saskatchewan Major program (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.
LING0040 Practical Language Analysis: Phonology
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: LING010Y, LING20H
Prerequisite: LIN040Y
J.D. Woods
Offered every year

LING0506 Practical Language Analysis: Morphology
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: LING010Y, LING21H
Prerequisite: LIN040Y
J.D. Woods
Offered every year

LING0601 Practical Language Analysis: Syntax
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: LING010Y, LING23H
Prerequisite: LIN040Y
D.M. Jones
Offered every year

LING0892 Phonetics: The Study of Speech Sounds
The physiological and acoustic bases of speech.
An examination of the relationship between the physical properties of speech sounds and
the physical processes that produce them. Emphasis will be placed on the role of
acoustic and aural analysis in the study of speech sounds.
Exclusion: LING040Y
Prerequisite: LING040Y
J.D. Woods
Offered every year

LING2152 Reading and Writing in a Second Language: Theoretical and
Pedagogical Issues
Reading and writing as second language literacy, and how the role of
language in second language reading and writing; cohesion and coherence in written discourse;
cross-cultural differences in genre-based rhetorical patterns; the teaching and evaluation
of reading and writing skills. Students will write research papers on data that they
have collected and analyzed with the help of the instructor. This course is recommended for
students enrolled in the Specialist Programme in the Education of Teachers in French.
Prerequisite: One full-course equivalent in LNF or FRE525Y or alternate prerequisites
with permission of the instructor.
T.B.A.
Normally offered every other year

LING2251 Language and Gender
An introduction to the research on differences between females and males in how they use
language and how they behave in conversational interaction, together with the examination of
the role of language in reflecting and perpetuating cultural attitudes towards gender.
Topics will include: different theoretical approaches to explaining when and why
gender differences in language use do or do not exist; the research on such phenomena as
the assertiveness gap, the overlap the research on gender stereotypes, and intercultural
interaction in relation to gender; cross-cultural differences; and ways in which males and females are defined
and evaluated differently through language. Exclusion: JAL255H
Prerequisite: One full-course equivalent in LIN, ANT, SOC or WST
D.M. Jones
Normally offered every year

LING2545 Developmental Psycholinguistics
Description of children's pronunciation, vocabulary, and grammar at various stages of
learning their first language, and theories of how linguistic knowledge and cognitive
processes that underlie and develop along with language learning.
Exclusion: JLP215H
Prerequisite: One full-course equivalent in PSY or SOC
J. Smith
Normally offered every other year

LING2595 Psycholinguistics
Empirical evidence for theories of how speech sounds and sentences are represented in
the mind and brain.
Topics will include the perception and production of speech sounds, measurement of
motor activity during speech and reading; use of grammatical knowledge in naming and understanding sentences;
semantic and syntactic aspects of language, and the role of memory systems in language processing.
Exclusions: JLP354H
Prerequisites: One full-course equivalent in PSY or SOC
J. Smith
Normally offered every other year

LING3043 Sociolinguistics
Theories of how language is represented in the mind.
Topics will include the perception and production of speech sounds, measurement of
motor activity during speech and reading; use of grammatical knowledge in naming and understanding sentences;
semantic and syntactic aspects of language, and the role of memory systems in language processing.
Exclusions: JLP354H
Prerequisites: One full-course equivalent in PSY or SOC
J. Smith
Normally offered every other year

LING3211 Animal Communication
Prerequisites: One full-course equivalent in ANT, ENG, LIN or SOC
Exclusion: LING010Y
J. Smith
Normally offered every other year

LING3223 Language Change
Prerequisite: LING010Y
J. Smith
Normally offered every other year

LING3351 Language and Society
Prerequisite: LING010Y
J. Smith
Normally offered every other year

LING3411 Disorders of Speech and Language
Prerequisite: One full-course equivalent in Linguistics, permission of
J. Smith
Normally offered every other year

LING3474H Psychological Linguistics
Prerequisite: One full-course equivalent in Linguistics
J. Smith
Normally offered every other year
The second part of the mission statement will be achieved through our introduction of Management course (MGMT 402). The third part of the mission statement refers to faculty development initiatives now underway.

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

Our faculty development initiatives have enabled the University of Toronto at Scarborough Management Programmes to offer a much wider range of elective 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.

Due to these limitations, Management Programmes students must have permission from both their supervisor of studies and the best campus to take management courses at another campus. Permission would be granted only if the course is not available at Scarborough at any time during the year. 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 are accepted.

Admissions Requirements

Admissions are made to the Specialist Programme in Management and Economics on the basis of academic achievement. Students who have completed all four years of high school are eligible to apply. The selection process is based on a combination of academic performance and personal qualities. The programme requires a minimum GPA of 2.0 and a minimum level of English proficiency. Students who are interested in the programme should contact the admission office for more information.

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One of the key differences between the Specialist Programme in Management and Economics and the Co-operative Programme is that the Specialist Programme requires students to take courses in a variety of disciplines, while the Co-operative Programme requires students to take courses in a specific discipline. This allows students to develop a more diverse set of skills and knowledge, which can be applied to a variety of fields.

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Note that enrolment in the Programme is limited. Admissions are granted on the basis of applicants’ personal achievements in Management, and accomplishment and grades in both verbal and quantitative studies.

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

Work Terms
The Programme requires five months of work terms and study terms over a four-year period. In addition to the twenty full- course credits needed for graduation, 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 scheduled by the Co-operative Programmes Co-ordinator but must be won by students in competition with Co-operative students from this and other Universities. During work terms students gain experience in a wide range of departments within government, business enterprises or 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 Economics Programmes). In addition to the common core of studies, Co-op students MUST take MET280 and CSCA20 in their first year or in the summer after first year. Students are advised to consult regularly with the Programmes Supervisor on course selection and scheduling. It is however the students’ individual responsibility to ensure that they have completed the correct courses to make them eligible for work term and that they have correctly completed Programme and degree requirements for graduation.

To maintain standing in the Programme, to be eligible for a work term, and to receive specialist certification upon graduation, a student must
- attain a cumulative grade point average of 2.30
- receive a satisfactory evaluation for work term performance and work term reports.

ADM301-C69 Management Co-op

Work Term
Work terms are an integral part of the Co-op curriculum. Practical work experience in an appropriate field is alternated with study terms to enhance academic studies and develop professional and personal skills.

Eligibility for work terms
To compete for a work term a student must be in good standing in the Programme and must have completed:
- for the first work term: seven full-course equivalents, including ECMA20 and ECMA22, or MET280 and CSCA20
- for the second work term: nine full-course equivalents
- for the third work term: eleven full-course equivalents

Evaluation of work term
Performance on each work term is evaluated by both the employer and the Co-ordinator. Students must submit for evaluation a report for each work term which integrates knowledge gained during the work term with academic study already completed.

Course credits of 0.5 full-course equivalent is granted for each four-month work period. Work term credits are in addition to the 20 full-course degree requirements and are granted on a credit, no credit basis. There are no additional fees for work terms.

Specialist Programme in Management and Language (French)

Supervisor - Andre Stanwix (287-7351)
E-mail: stanwix@ccs.uottawa.ca
The Management 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 5 requirements as listed above. The sixth requirement is waived.

Students are encouraged to take MET280, ECS100, ESL200, CSCA20 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 B, Basic Language, B, Intermediate Language and G, Civilian, as follows:

French
A. FREN10, FREN12, one full-course equivalent from FREN201, FREN202, FREN203, FREN204, FREN206
B. at least one full-course equivalent in FREN304, FREN311, FREN312, FREN313, FREN314, FREN315
C. at least one half-course from FREN202, FREN203, FREN207, FREN208
D. An additional half-course in FREN
MATA28 (strongly recommended) or MATA29
5. CSCA02 (students familiar with the material in CSCA02 may substitute CSCA04)
6. Two additional 1/2-hour additional P.C.F.E.'s from courses other than MGTR04, to include at least 1 F.C.E. from courses within the Division of Humanities.

MUTA203 Introduction to Management
Introduction to the process of management: planning, organizing, controlling, and leading. The functional components of profit-maximizing organizations (accounting, finance, marketing, personnel, etc.), and the organization's role within a broader context. An emphasis on ethical and societal considerations. This course should be taken before any other MCT course.
Exclusion: Any other MCT course (except MCT42 for students in programs requiring MCT203 or 803 for students admitted to the Management program directly from high school).
Prerequisite: None.

MUTA203 Financial Accounting
Basic theory and concepts which underlie the preparation of financial statements, development of double entry theory and practice; the accounting cycle from the recording of transactions in double entry form to the year-end entries 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.
Exclusions: MUTT201H + MUT212H.
Prerequisite: MUTA105Y. Students admitted to the Management program directly from high school and students registered in programs requiring this course may take MUTA203 concurrently.

MUTA203 Management Accounting
An introduction to management and cost accounting with an emphasis on the use of accounting information in managerial decision-making. Topics include patterns of cost behaviour, transfer pricing, budgeting, and control systems.
Exclusion: Limited to students registered in programs requiring this course.
Exclusions: MUTA203H, MUTA205H.
Prerequisites: ECONM32 (ECONM32Y) or ECONM32Y, ECONM38 (ECONM38Y), or ECONM38Y, in addition to either ECONM2 and ECONM2H or ECONM2 and ECONM2H, and either additional MGT prerequisites and 1 F.C.E. in the Bachelor of Economics for Management Studies program. A C-Level Economics for Management Studies course is defined as one that has a B-level prerequisite.

MUTA203 Quantitative Methods in Management
An introduction to statistics and regression analysis as used in business. The course will cover material similar to ECON09, but in somewhat less depth. Topics to be covered include: summary statistics, statistical probability distributions (normal, binomial), confidence intervals, hypothesis testing (parametric), t-tests, and multiple regression. There will be a number of computer assignments.
Limited enrollment: 80 per section.
Exclusions: ANTICSS, ECONM09 (ECONM09Y), PSYB01, SOC180H, STAG22H.
Prerequisites: CSCA02 or CSCA04
Concurrent: ECONM22 (ECONM22Y) or ECONM22Y (ECONM22Y).
T.R.A.

MUTR203 Managing People in Organizations
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.
Exclusions: MUTT202Y, MUTT203H
Prerequisite: MUTA202Y.

MUTR203A Managerial Skills
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 already addressed in their 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. Enrolment is limited to students registered in programs requiring this course.
Exclusions: MUTR203Y.
Prerequisite: MUTA202Y.

MUTR203 Managing Groups and Organizations
An introduction to the practical and theoretical aspects of macro-organizational behavior.
Organizations are an integral part of our everyday lives, yet, too often, the average person understands little about how organizations function. This course is about how organizations are organized and about how to change them to make them work for us. Building on concepts from MUTT202 and MUTT204, students will be introduced to...
MGT203H Intermediate Management Accounting
An examination of various cost accumulation and performance evaluation systems and decision-making tools. Topics include job and process costing, flexible budgeting, and variance analysis and cost allocations.
Limited enrolment: 60
Exclusions: MGT223H & MGT224H
Prerequisite: MGT103

MGT207H Intermediate Financial Accounting II
Together with MGT206H, 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 MGT202B and, to a lesser extent, MGT203.
Limited enrolment: 60
Exclusions: MGT223H & MGT224H
Prerequisite: MGT206H

MGT208H Intermediate Financial Accounting III
A continuation of MGT207H. 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 MGT207H before attempting this course.
Limited enrolment: 60
Exclusions: MGT207H & MGT224H
Corequisites: MGT206H
Prerequisites: MGT203H, MGT206H

MGT209H Intermediate Finance
A sequel to MGT208H, this course will continue the coverage of mainstream finance topics. Besides a deeper examination of certain topics already covered in MGT208H, the course will investigate additional subjects such as working capital management, capital budgeting under uncertainty, cost of capital, corporate structure, dividend policy, leasings and acquisitions, and international financial and market analysis.
Limited enrolment: 60
Exclusions: MGT233Y, MGT337Y
Prerequisites: MGT209H

MGT210H Management Control Systems
The course objective is to develop a thorough understanding of planning and control systems in organizations, with an emphasis on practical implications. Case studies will be used to evaluate control structures and means with some attention to multinational, private and non-profit organizations.
Limited enrolment: 60
Exclusions: MGT228H
Corequisites: MGT203H & MGT233H & MGT244H (MGT238Y)

MGT211H Management Information Systems
An introduction to help students understand the information systems that are a critical component of modern organizations. The course covers the technology, design, and evaluation of data processing and information systems, with emphasis on organizational judgment and decision making.
Limited enrolment: 60
Exclusions: MGT203H & MGT223H & MGT244H (MGT238Y)

MGT215H Canadian Income Taxation I
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 enrolment: 60
Exclusions: MGT210H, MGT215H I and II
Prerequisites: Completion of at least ten full-course equivalents including MGT203H

MGT217H Canadian Income Taxation II
This course is designed to give the student an understanding of the more complex issues of federal income taxation, by applying current law to practical problems and cases. Topics include: computation of corporate income, corporate distributions, corporate reorganizations, partnerships, trusts, and individual and corporate tax planning.
Limited enrolment: 60
Prerequisite: MGT215H

MGT226H Introduction to Management Consulting
This course introduces students to consulting as a career option. With the changing nature of employment, students are increasingly likely to face careers involving a series of short-term projects or project related assignments. The successful manager of the future will not have "job" but a portfolio of adaptable and transferable skills. The course examines what consultants do, and the reasons organizations engage management consultants. The course teaches management consulting skills: personal selling, project specification, proposal writing, contract negotiation and project management.
Limited enrolment: 60
Prerequisites: MGT203H & MGT215H & MGT233H

MGT229H Human Resource Management
An introduction to the basic concepts, theories and practices of personnel management. Topics include recruitment, selection, training, development, performance appraisal, compensation and human resource planning. Affirmative action, discrimination and equal- pay issues will be examined in relation to human rights legislation.
Limited enrolment: 60
Prerequisites: MGT233H & MGT244H (MGT238Y)

MGT231H Legal Environment of Business I
An introduction to the Canadian legal system and its effects on business entities. The course includes an examination of the Canadian court structure and a discussion of the various forms of business ownership, tort law, contract law, and property law.
Limited enrolment: 60
Exclusion: MGT230H MGT238Y I and II
Prerequisites: Completion of at least ten full-course equivalents including MGT203H

MGT235H Legal Environment of Business II
This course further examines the issues raised in Legal Environment of Business I. It focuses on relevant areas of law that impact business organizations such as consumer protection legislation and agency and employment law, and it includes a discussion of the laws affecting secured transactions and commercial transactions.
Exclusion: MGT230H
Prerequisites: MGT230H

MGT240H Management and Organization in Finance
Through the analysis of works of fiction dealing with managers in both private and public sector organizations, the course explores the ethical dilemmas, organizational challenges and career choices that managers can expect to face.
Limited enrolment: 60
Prerequisites: MGT233H & MGT244H (MGT238Y)
MGT362H Management Communications Written and Oral Communication Skills for Managers
Effective and correct communication allows professionals to articulate with confidence their managerial knowledge and expertise. Topics in this course include written 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 contexts, jargon-free language. Since correct grammar and punctuation are essential to good communication, these skills will be carefully reviewed. Class participation and group interaction will be stressed.
Limited enrolment: 40
Prerequisites: MGTB24H & MGTB24H (MGTB24Y)

MGT383H Entrepreneurship
This course focuses, from a practical viewpoint, on case methods, on the skills required and issues - personal, financial, sales, operational, personnel - entrepreneurs face as their smaller businesses grow from start-to-maturity. The course should interest those who wish to own, or work with, an entrepreneurial business.
Limited enrolment: 40
Prerequisites: MGTAD2Y & MGTB24H & MGTB24H (MGTB24Y) & MGTB24H

MGT419H Management Policy and Strategy
An introduction to the art and science of general management of a business organization. The course explores modern concepts in the general management of business, such as understanding and evaluating the competitive environment, developing a strategy that will enable an organization to succeed in its environment, and the management of congruent organizations. The course will use the case method extensively.
Limited enrolment: 60
Exclusions: MGT492H
Prerequisites: MGTB24H & [ECMB02Y (ECMB2Y) or ECMB24Y (ECMB24Y)]

MGT428H Public Management
The course deals with key public sector management issues: service delivery, budgeting, human resources, crisis management) making effective use of case, cause studies, and simulations intended to develop the student's management skills.
Limited enrolment: 60
Exclusion: MGT491H
Prerequisites: MGTB24H & [ECMB24Y (ECMB24Y) & POL301Y or POL300Y]
Corequisite: MGTB24H

MGT448H International Business Management
This course deals with problems faced by managers of international business, such as development of a global business strategy, location of operations, dealing with local cultures in marketing and human resource management, and negotiations with host government.
Limited enrolment: 40
Exclusions: MGT491H, MGT492H
Prerequisites: MGTAD2Y & MGTB24H & MGTB24H (MGTB24Y)

MGT458H Business Negotiation
An introduction to the theory and practice of negotiation in business. All business relationships (for example, relationships among customers, employees, suppliers and customers) require negotiations. This course provides the student with a set of approaches and tactics to use in different forms of negotiation, 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 stimulate negotiations.
Limited enrolment: 60
Exclusions: MGT492Y
Prerequisites: MGTAD2Y & MGTB24H & MGTB24H (MGTB24Y)

MGT464H Introduction to Industrial Relations
An overview of the industrial system and process in Canada. The course will introduce students to: industrial relations theory, the roles of union and management, employment law, labour law, the impacts of collective bargaining, on the economy and for firm, strikes and lockouts; grievance arbitration.
3. The following 3 F.C.E.'s:
BOGY91H Biochemistry I: Proteins & Enzymes
BOGY91H Biochemistry II: Biomembranes & Metabolism
NRO034H Investigative Neurology
NRO034H Neuroscience II: Learning & Motivation
NRO034H Neuroscience Laboratory
NRO034H Neuroscience III: Sensory & Motor Systems
PSYB67H Advanced Data Analysis in Psychology

4. 1 F.C.E.'s from the following:
(Supervised Study or Thesis courses can be used to fulfill a maximum of 0.5 F.C.E. in this category)
NRO035H Developmental Neurobiology
NRO036H Synaptic Organization of the Brain
NRO037H Supervised Study in Neuroscience
NRO039H Advanced Neuroscience Laboratory
NRO039H Pathobiology in the Nervous System
PSYD67H Psychobiology of Aging

MAJOR PROGRAMME IN NEUROSCIENCE

Preceptor: J. Ouellette (Office: 357)
The programme requires seven full-course experiences. Students who might consider completing a four-year Specialist degree in Neuroscience are encouraged to include as electives: CHM944HJ, PHY921H and
BOGY91H. Students planning to complete a double major in Biology and Neuroscience must take an extra 0.5 F.C.E. from either Category 4 of the Major Programme in Neuroscience or an extra 0.5 F.C.E. in Biology under Category 4 of the Major Programme in Biological Sciences. Students should consult their Preceptor or Thesis course.

The following indicates the required courses for the Major Programme in Neuroscience:

1. The following 3 F.C.E.'s:
BOGY91Y Introductory Biology
CHMA40Y Introductory Chemistry
PSY67Y Introductory Psychology

2. The following 1 F.C.E.'s:
NRO936H Neuroscience I: Cell Anatomy and Physiology
NRO034H Neuroscience I: Cell Anatomy and Physiology
NRO034H Neuroscience I: Sensory and Motor Skills
NRO034H Neuroscience II: Learning & Motivation

3. 2.0 F.C.E.'s from the following:
BOGY91Y Cell and Molecular Biology
BOGY91H Animal Physiology Laboratory

4. 0.5 F.C.E. from the following:
NRO034H Investigative Neurology
NRO035H Developmental Neurobiology
NRO036H Synaptic Organization of the Brain
NRO037H Supervised Study in Neuroscience
NRO039H Advanced Neuroscience Laboratory
NRO039H Pathobiology in the Nervous System
PSYD67H Psychobiology of Aging

NRO933H Neuroscience I: Cell Anatomy and Physiology

- Depth coverage of the structure and function of the nervous system.
- Topics include: neuroanatomy, structure and function of neurons and glial cells, neurotransmission, 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 ultrastructural bases of function of the nervous system as well as its role in the behavior of the organism. This hour of lecture and two hours of lab per week.

Exclusion: PSY920H, PSY920H
Prerequisite: PSY920Y (CHMA40Y is recommended for students with no Chemistry background)
Supervisor: G. Ivy

NRO935H Developmental Neurobiology

- Examination of some aspects of the development of the vertebrate nervous system and mechanisms that guide this development.
- Development with the embryonic development of the nervous system, this course will address how neurons acquire their axon and grow together in the proper location, how appropriate synaptic connections are formed, and the regulation of neural development.

Exclusion: PSY920H
Prerequisite: PSY920Y
Supervisor: G. Ivy

NRO936H Synaptic Organization of the Brain

- A detailed study of the synaptic organization of the brain, focusing on major structures of the major nervous system.
- Neuronal morphology, synaptic connectivity, and molecular mechanisms of synaptic function, ion channels and neurotransmitters will be covered in detail.
- Similarities in circuitry among seemingly diverse structures such as the olfactory bulb, cerebellum, hippocampus, and cerebral cortex will be examined in detail. The goal of the course is to understand the basic understanding of cellular mechanisms of information processing in the CNS.

Exclusion: PSY920H
Prerequisite: NRO930H (PSY920H)
Two hours of lecture and three hours of scheduled laboratory work per week. Students will be asked to spend additional hours working in the student laboratory.

Exclusion: PST 299 (PSYCS40)
Preliminary: NSC 505H
Corequisite: NSC 513H (PSYCS60) and PSYCS80

NSC 506H - Pathologies of the Nervous System

An intensive examination of selected pathologies affecting the nervous system. This course will provide students with a detailed examination of a select number of pathologies (e.g., Parkinson’s disease, the epilepsies, Alzheimer’s, multiple sclerosis, strokes, etc.) affecting the nervous system. These pathologies will be examined from an integrative perspective encompassing the pathogenesis, resulting behaviors, and current treatments and therapies. Two hours of lecture per week.

Limited enrollment: 30
Preliminary: NSC 505H (PSYCS40) and PSYCS60
Corequisite: NSC 513H

NSC 609Y - 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). Students will meet as a group with the course co-ordinator to present their own research proposals, to appraise the contributions of others and to discuss the results of their investigations. Additional topics directly related to neuroscience research will also be discussed. The individual research project will culminate in a written report in the form of a thesis and an oral defence of that report in the spring.

Students must obtain permission from the Divisional Office (3424) to be completed and signed by the individual supervisor, and returned to the Divisional Office. At that time, the students 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 supervisor currently holds a cross-appointment at the University of Toronto.

Preliminary: Satisfactory completion of fifteen full-time equivalents in any discipline, but including PSYCS1011 & one
Physical Sciences Scarborough

The programs offered by Physical Sciences are closely related groups 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:

- Biological Chemistry
- Computer Science (Co-op & Non-Co-op)
- Geomatic Sciences
- Mathematics Stream
- Joint Physics Stream
- Joint Statistics Stream
- Software Engineering Stream
- Environmental Science (Co-op & Non-Co-op)
- Environmental Systems Stream
- Environmental Biology Stream
- Environmental Chemistry Stream
- Mathematics and Statistics
- Physical and Mathematical Sciences
  - Stream A - Mathematics
  - Stream B - Physical Science
- Physics and Its Applications

Most programs cover a 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 program. Many of the programs have a common first-year core of requirements, allowing students to keep their options open for subsequent choice of programs.

Students are generally advised to take their courses in the sequence recommended by their program of choice. Irreconcilable time-table 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.

EARLY TEACHER PROJECT

Coordinator: C.C. Dyce (287-7206)

The Early Teacher Project is designed to produce teachers in the field of Science and Mathematics. It has been developed in cooperation with OISE/UT, University of Toronto. The Physical Sciences Scarborough specialist programmes are designed to lead to Primary Specialist Ontario Teacher Certification in one or more subjects. To participate students must continue to be registered in a Physical Sciences Scarborough Specialist Program and participate in an information session in second year. Subsequently these students will work with experienced teachers in classrooms of primary/secondary schools in the third and fourth years. There will also be a workshop/student component organized jointly by University of Toronto at Scarborough and OISE/UT.

The Early Teacher Project will count for academic credit (though not as part of the 20 course requirement of a degree). Successful completion of the Early Teacher Project, together with a Physical Sciences Scarborough Specialist Program with a 2.5 GPA standing in the first fifteen F.C.E.'s will guarantee admission to OISE/UT for at least thirty students each year.

Completion of the Early Teacher Project requires the completion of 1PSC10F and one of 1PSC20S or 1PSC30S, irrespective of the particular program requirements of Physical Sciences Scarborough Specialist Programmes. These courses may have to be chosen as electives since they are not required in all our programs.

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

- Chemistry
- Computer Science
- Environmental Science
- Environmental Science
- Environmental Sciences
- Physical Sciences

The Division also offers a Minor Programme in Environmental Science.

Astronomy

Faculty List

P.P. Knoblock, B.Sc., M.Sc. (Queen's), Ph.D. (Manchester), D.Sc. (Manchester), Professor Emeritus
C. Dyer, B.Sc., M.Sc., Ph.D. (Toronto), Professor

Discipline Representative: C.C. Dyce (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 universe in which humanity developed, from the solar system in which we find our next and recent origins, in the larger distance scale typified by quasars and the big bang, in which we must seek 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 intersection 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 ASTRAGY. For students wishing to further their study in astronomy, there are a number of B-science courses, which are integral components of a number of the Physical Sciences Specialist Programmes. In addition, the course ASTR30X is intended for students who have taken an introductory course in astronomy, and who have the desire to explore the subject further in a number of modern scientific areas.

Please refer to the Physical Sciences Scarborough summary on pages 152 for a list of the Programmes offered. Descriptions of these programs can be found on subsequent pages of this section.

SPECIALIST PROGRAMME IN ASTRONOMY, MATHEMATICS AND PHYSICS

Students: C.C. Dyce, M. 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 1993/94 calendar for requirements).

ASTAGUY Introduction to Astronomy

Astronomy is a description of the main systems, 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, its subsystems and the Universe as a whole are discussed in a manner suitable for both the science and non-
ASTRO183 Research Topics In Astronomy
An application of individual effort to reading and research on a topic of current interest. The student will research on some topic of current interest in astrophysics and write a report ("mini-thesis") on his or her work. The student is expected to gain an appreciation of the current state of knowledge about a particular topic of astrophysical interest and to become familiar with the basic methods of research. The topic will be selected by one of the instructors in consultation with the student. Formal lectures are replaced by regular consultation between the student and instructor. It is expected that at least 20 hours of work will be done during the year, following which the mini-thesis will be submitted to the instructor. For more detailed information see Professors Dyer or Kronberg. The bibliography is dependent upon the topic selected.

NEW COURSES TO BE OFFERED 2000/2001

ASTRO212I Solar System and Stellar Astrophysics
The application of physical principles to study the structure and evolution of astrophysical bodies, particularly planets and stars and their local motion in the universe.

ASTRO206I Stellar Systems, Galaxies, and Cosmology
The course will consider the structure and evolution of collections of astrophysical bodies.

ASTRO103 Relativity and Cosmology
Prerequisite: PHYS21I

ASTRO105 Galatic and Extragalactic Astrophysics
The 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.

Chemistry

Faculty List
A.J. Karge, B.A. (Cornell), Ph.D. (Illinois)
F.R. Cavendish, Ph.D. (Warwick), Professor Emeritus
K.A. McClelland, B.Sc., Ph.D. (Toronto), Professor
J. C. Thompson, B.A., Ph.D. (Cambridge), Professor
T.T. Tsai, B.S., M.S., Ph.D. (Leiden), Professor
D. J. Donaldson, B.Sc., M.S., Ph.D. (Carleton), Professor
S. Fraser, B. A. (Oxford), Ph.D. (Cambridge), Associate Professor
K.A. Kendrew, B.Sc., M.B., M.B. (Toronto), Senior Tutor
J. Potter, B.Sc. (Birmingham), M.Sc. (Windsor), Senior Tutor
A. Verne, B.Sc. (St. Andrews), M.Sc., M.B. (Toronto), Senior Tutor
W. B. B. (Toronto), Senior Tutor
I. To B. Sc., B.Ed., (Singapore), Senior Tutor

Coordinator of First Year Studies in Chemistry: A. Verne (927-7234)
Chemistry can be viewed as both a challenging intellectual pursuit and a powerful, practical tool for developing and handling the resources of our contemporary society. A sound knowledge of the fundamental concepts of chemistry is useful to any student in the Physical or Life sciences. The Chemistry Handbook outlines the teaching and research activities of the Chemistry faculty and offers a wide range of informal advice on undergraduate activities.

The basic course in chemistry is CHM160 which is to be taken by those who wish to take further chemistry courses or who require chemistry for another science course. Completion of CHM160 permits students to take any of the B-level courses in Chemistry. These are divided according to the following subclasses: Inorganic Chemistry, Analytical Chemistry, Physical Chemistry, Environmental Chemistry and Organic Chemistry. Thereafter, one can proceed to advanced-level courses at the C- and D-level. Students who wish to enrol in St. George 400-series courses should note that completion of the following group of courses, together with their prerequisites, will normally ensure admission to the St. George courses indicated, provided that standing or permission of the instructor is obtained.
**SPECIALIST PROGRAMME IN ENVIRONMENTAL CHEMISTRY**

**Supervisor:** K.A. Hindmarsh (B7-2712)

The Specialist Programme in Environmental Chemistry has been withdrawn. Students normally registered in it will be allowed to complete it or may transfer into the Environmental Science Specialist Programme. All students interested in the chemistry of the environment might wish to consider this Specialist area. Please consult with the Supervisor of Studies.

**MAJOR PROGRAMME IN CHEMISTRY**

**Supervisor:** A. Vincent (B7-3224)

Defines the possibility of obtaining an introduction to all the sub-disciplines of chemistry. Students should complete the following 7.5 courses:

1. **First Year:**
   - **CHMB2Y** General Chemistry
   - **CHMB2Y** or **MATA2Y** Introduction to Mathematical Physics
   - **CHMB2Y** or **MATA2Y** Principles of Classical Physics
   - **CHMB2Y** or **MATA2Y** Principles of Modern Physics
   - **CHMB2Y** or **MATA2Y** Dynamics of Classical Systems
   - **CHMB2Y** or **MATA2Y** Principles of Modern Physics
   - **CHMB2Y** or **MATA2Y** Topics in Biophysical Chemistry

**Second and Later Years:**

- 3.75 F.C.E. Chemistry courses, including at least one "C" level half course with a laboratory.

**PETT210 is not an acceptable substitute for**

**CHOA20H, MATA2Y, or PHYA21H**

Students should note that if they are going to select CHMB2Y, then MATA2Y or PHYA21H are prerequisites; if CHMB2Y is chosen, CHOA20H and MATA2Y are prerequisites.

**SPECIALIST PROGRAMME IN BIOCHEMISTRY**

**Supervisor:** J. Feeney (B7-2722)

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 wish to study the chemistry of living systems.

Students should complete the following 9.5 F.C.E.'s:

- **CHMB16H** Techniques in Analytical Chemistry
- **CHMB2Y** Introductory Physical Chemistry
- **CHMB2Y** Techniques of Calculus of Several Variables I, in addition to the following:
  - **CHMB2Y** or **CHMB44Y** Introduction to Organic Chemistry
CHMB541Y Organic Chemistry I
The chemistry of the principal functional groups encountered in aliphatic and aromatic compounds, interpreted in terms of reactivity, stereochemistry and reaction mechanisms. An introduction to organic spectroscopy will also be given.

The fundamentals of organic chemistry, including aliphatic and aromatic chemistry and an introduction to the chemistry of biologically important molecules such as proteins and carbohydrates. Two lectures per week and a four-hour laboratory every second week. Exclusions: CHMB4402, 240, 249, 268, 269
Prerequisite: CHMB402Y
Recommended: CHMB316H

CHMB555H Environmental Chemistry
An investigation of aspects of chemical substances and processes as they occur in the environment, including both natural occurring and synthetic chemicals. This course will include an introduction to atmospheric chemistry, aqueous chemistry, some agricultural and industrial chemistry, and chemical analysis of contaminants and pollutants. Specific topics may include deposition of the course layer, the greenhouse effect, photochemical smog, the global chemical cycles of some of the elements essential to life, natural waters, acid, rain, drinking water, sewage and waste disposal, chlorinated organic compounds and metals in the environment. Chemical concepts utilized include the calculation of reaction rates and equilibria, and the structures and reactions of organic and inorganic compounds. Two one-hour lectures per week.

Exclusion: CHMB552Y
Enrolment: CHMB539H, CHMB510

CHMC111H Principles of Analytical Instrumentation
An introduction to the workings of modern analytical instruments. Principles of measurement; detection of photons, electrons and ions; instrumental and experiment design; amplification methods; noise reduction techniques and signal-to-noise optimization. Emission and absorption spectroscopy, electrochemical methods and separation techniques will be covered. Two one-hour lectures per week.

Exclusion: CHMB111Y
Prerequisite: CHMB111H
Recommended: CHMB22Y

BOYC129H Biochemistry I: Proteins & Enzymes
A course designed to introduce students to the structure 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; proteins motifs and protein domains; glycoproteins; 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.

There are one-hour lectures per week. (Note: the third hour will be used for a combination of lectures, tutorials, and exam.)

Exclusions: [BIOC353Y, BJCC353Y], [CHMC320Y, 321]
Prerequisites: [BIOA230Y] or [BOYG101Y] and CHMB402Y
J.W. Gend

BOYC129H Biochemistry II: Bioenergetics & Metabolism
A course designed to introduce students to cellular metabolism, the processes 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:
- principal of bioenergetics;
- chemiosmotic and oxidative phosphorylation;
- carbohydrate metabolism including glycogen metabolism 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 structure and the regulatory pathways will be discussed. There are one-hour lectures per week. (Note: the third hour will be used for a combination of lectures, tutorials, and exam.)

Exclusions: [BIOC353Y, BJCC353Y], [CHMC320Y, 321]
Recommended: [BIOA230Y] or [BOYG101Y] and CHMB402Y
J.W. Gend

CHMC131Y Intermediate Inorganic Chemistry
A one-semester discussion in the area of inorganic chemistry. Emphasis will be placed on the structure, bonding, spectroscopy and applications of transition metal and organometallic complexes. Special topics may include inorganic solids and materials, biologically and catalytically important inorganic complexes, and catalysis. The laboratory will involve the synthesis of a variety of inorganic complexes, with characterization by both classical and instrumental methods. Two hours of lectures per week, and a seven-hour laboratory each week.

Prerequisites: CHMB316H
Recommended preparation: CHMB411Y, CHMB411H, CHMB422Y, CHMB4402
Replacement: CHMB311H

Physical Sciences / Chemistry
Computer Science

Faculty List

C. Dyer, B.S., M.S., Ph.D., Professor
W. H. Bright, B.S., (U.B.C.), M.S., Ph.D., Professor
V. Hadziabdic, B.A. (Princeton), Ph.D., (Harvard), Professor
G. Ortiz, B.A., B.S., (Montana), M.S., (A.N.U., U.B.C.), Ph.D., (Brown), Professor
A. Mendelson, B.S., M.S.E., M.A., Ph.D., (Princeton), Professor
M. Malloy, Ph.D. (Carnegie Mellon) Assistant Professor
N. Chang, B.Sc., Senior Tutor
O. J. Copi, B.Sc. (U.B.C.), Senior Tutor

Discipline Representative:
A. Mendelson (277-7239)

Computer science is the study of the use of computers to process information. The form of this information may vary widely, from the business person’s records or the scientist’s experimental results to the language’s texts. One of the fundamental concepts in computer science is the algorithm — a set of instructions that specify the steps required to solve a problem. Computer science is concerned with producing correct, efficient, and maintainable algorithms for wide variety of applications. Closely related is the development of tools in these fields: graphics 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 make it practical to solve by computers. Numerical analysis, data management systems, computer graphics, and artificial intelligence are concerned with applications of computers to specific problem areas.

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

Limited Enrolment: Because of pressures of demand for places, it has been necessary to place enrollment limits on most CSC courses and on admission to the Major and Specialist programmes. Information on how to apply for admission to a Programme is given below.

Students interested in computer studies should also refer to Specialist and Major Programmes in Computer Science.

Please refer to the Physical Sciences/Chemistry section for a list of the Programmes offered. Descriptions of these Programmes 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. Data Processing Stream
6. Software Engineering Stream

Admission to the Programme

Each year, a total of 80 students are admitted to the stream of the Specialist Programme in addition to admissions to the Specialist Co-operative Programme. There are three possible ways to be admitted.

1. Directly from Secondary School
   - Up to 40 students will be admitted directly from high school, on the basis of academic performance. Applicants must have completed OAC Calculus and one of OAC Algebra and Geometry or OAC Plane Mathematics.

2. At the End of First Year
   - Applicants must have completed all the first-year courses required in the programme. Students applying for admission on completion of their first year (at least 4 C.C.E.A.’s) will be evaluated on the basis of their marks in Computer Science and Mathematics courses.

3. Admission After First Year
   - Admission of students during second year will be based on satisfactory completion of at least 4 full courses and will also be on the basis of their grades received in Computer Science and Mathematics courses.

Students applying at the end of the first year or during the second year will be considered together for a total of approximately 40 places in the Specialist Programme.

In order to remain in the programme, all students must maintain a cumulative GPA of 2.0 or higher throughout the programme.

The Computer Science Programmes have been recognized into one Specialist Programme with six different streams.
1. General Stream

Supervisor: G. Culp (287-7253)

This programme provides a broad based education in computer science. It prepares a student for a professional position in the computer field, and for graduate study in computer science.

First Year:
- CSC244H: Introduction to Computer Programming (or equivalent computer programming experience)
- CSC544H: Introduction to Computer Science
- MAT232Y: Calculus

Second Year:
- CSC284H: Discrete Mathematics
- CSC344H: Computer Organization
- MAT242H: Techniques of the Calculus of Several Variables I
- MAT242Y: Techniques of the Calculus of Several Variables II

Two of:
- MAT243H (MAT241H, MAT243H, MAT256H, MAT492H, MAT494H, MAT531H, MAT548H) (MAT539H, MAT548H, MAT592H, PSC252H)

Students intending to proceed to graduate study in computer science are advised to take

MAT432

Third Year:
- CSC324H: Principles of Programming Languages
- CSC444H: Effective and Efficient Computing
- STAB21H: Statistics
- STAB47H: Theory and Mathematical Statistics

Fourth Year:
- CSC354H: Methods and Tools for Software Development
- CSC355H: Numerical Algorithms and Optimization
- CSC357H: Differential Equations
- CSC455H: Microprocessors

Second Year:
- CSC284H: File Structures and Data Management
- CSC354H: Computer Organization
- MAT242H: Calculus of Several Variables II
- MGT323H: Managing People in Organizations

One of:
- MAT243H (MAT241H, MAT243H, MAT256H, MAT492H, MAT494H, MAT531H, MAT548H) (MAT539H, MAT548H, MAT592H, PSC252H)

One other 0.5 F.C.E. in Mathematics

Fourth Year:
- MAT243H, MAT341H, MAT343H, MAT481H
- MAT244H

One other 0.5 F.C.E. in Computer Science

2. Information Systems Stream

Supervisor: G. Hent (287-7277)

NOTE: Due to enrollment restrictions in required management courses, registration in this stream 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 course may be taken in an order different from that listed below, but care must be taken to ensure that prerequisites are satisfied and courses avoided.

First Year:
- CSC244H: Introduction to Computer Programming (or equivalent computer programming experience)
- CSC544H: Introduction to Computer Science

Second Year:
- CSC284H: Discrete Mathematics
- CSC344H: Computer Organization
- MAT242H: Techniques of the Calculus of Several Variables I
- MAT242Y: Techniques of the Calculus of Several Variables II

Two of:
- MAT243H (MAT241H, MAT243H, MAT256H, MAT492H, MAT494H, MAT531H, MAT548H) (MAT539H, MAT548H, MAT592H, PSC252H)

Students intending to proceed to graduate study in computer science are advised to take

MAT432

Third Year:
- CSC324H: Principles of Programming Languages
- CSC444H: Effective and Efficient Computing
- STAB21H: Statistics
- STAB47H: Theory and Mathematical Statistics

Fourth Year:
- CSC354H: Methods and Tools for Software Development
- CSC355H: Numerical Algorithms and Optimization
- CSC357H: Differential Equations
- CSC455H: Microprocessors

One other 0.5 F.C.E. in Mathematics

Fourth Year:
- MAT243H, MAT341H, MAT343H, MAT481H
- MAT244H

One other 0.5 F.C.E. in Computer Science

3. Information Systems Stream

Supervisor: G. Hent (287-7277)

This programme provides a broad based education in computer science and mathematics. It prepares a student for a professional position in the computer field and is appropriate for students who may wish to pursue a career in teaching or in government and industry. It can also lead to graduate study.

First Year:
- CSC284H: Introduction to Computer Programming (or equivalent computer programming experience)
- CSC544H: Introduction to Computer Science

Second Year:
- CSC284H: Discrete Mathematics
- CSC344H: Computer Organization
- MAT242H: Techniques of the Calculus of Several Variables I
- MAT242Y: Techniques of the Calculus of Several Variables II

Two of:
- MAT243H (MAT241H, MAT243H, MAT256H, MAT492H, MAT494H, MAT531H, MAT548H) (MAT539H, MAT548H, MAT592H, PSC252H)

Students intending to proceed to graduate study in computer science are advised to take

MAT432

Third Year:
- CSC324H: Principles of Programming Languages
- CSC444H: Effective and Efficient Computing
- STAB21H: Statistics
- STAB47H: Theory and Mathematical Statistics

Fourth Year:
- CSC354H: Methods and Tools for Software Development
- CSC355H: Numerical Algorithms and Optimization
- CSC357H: Differential Equations
- CSC455H: Microprocessors

One other 0.5 F.C.E. in Mathematics

Fourth Year:
- MAT243H, MAT341H, MAT343H, MAT481H
- MAT244H
### 4. Joint Physics Stream

**Supervisor:** C.C. Dyer (872-7206)

This programme provides a broadly-based education in computer science and physics. It prepares a student for a professional position in the computer field and is appropriate for students who wish to pursue a career in teaching or in government and industry.

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
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</thead>
<tbody>
<tr>
<td>CISC06H</td>
<td>CISC51H</td>
<td>CISC24H</td>
<td>CISC32H</td>
</tr>
<tr>
<td>Introduction to Computer Programming (or equivalent: computer programming)</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
<td>Principles of Programming Languages</td>
<td>File Structures and Data Management</td>
</tr>
<tr>
<td>MAT2A7Y</td>
<td>CISC4M4H</td>
<td>CISC54H</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>Calculus</td>
<td>Effective and Efficient Computing</td>
<td>Computer Organization</td>
<td>CISC83H</td>
</tr>
<tr>
<td>PHYA20H</td>
<td>PHYC32H</td>
<td>MAT2A4H</td>
<td>Linear Algebra II</td>
</tr>
<tr>
<td>Principles of Classical Mechanics</td>
<td>Structure of Matter</td>
<td>MATB4H1</td>
<td>Techniques of the Calculus of Several Variables I</td>
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<tr>
<td>or</td>
<td>One additional P.C.C. from other Core and D-level courses in AST, CHM, CISC, ESS, MAT, PHY, or STA</td>
<td>or</td>
<td>or</td>
</tr>
<tr>
<td>PHYA10H</td>
<td>PHYC32H</td>
<td>PSCD02H</td>
<td>Techniques of the Calculus of Several Variables II</td>
</tr>
<tr>
<td>Dynamics of Classical Systems</td>
<td>Current Questions in Mathematics &amp; Science</td>
<td>Computers in Contemporary Science</td>
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<tr>
<td>PHYA21H</td>
<td>or</td>
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<td>or</td>
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<tr>
<td>Principles of Modern Physics</td>
<td>or</td>
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<td>or</td>
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#### E. Joint Statistics Stream

**Supervisor:** M. Evans (872-7274)

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.

<table>
<thead>
<tr>
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<td>CISC06H</td>
<td>CISC51H</td>
<td>CISC24H</td>
<td>CISC32H</td>
</tr>
<tr>
<td>Introduction to Computer Programming (or equivalent computer programming)</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
<td>Principles of Programming Languages</td>
<td>File Structures and Data Management</td>
</tr>
<tr>
<td>MAT2A7Y</td>
<td>CISC4M4H</td>
<td>CISC54H</td>
<td>Discrete Mathematics</td>
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<tr>
<td>Calculus</td>
<td>Effective and Efficient Computing</td>
<td>Computer Organization</td>
<td>CISC83H</td>
</tr>
<tr>
<td>PHYA20H</td>
<td>PHYC32H</td>
<td>MAT2A4H</td>
<td>Linear Algebra II</td>
</tr>
<tr>
<td>Principles of Classical Mechanics</td>
<td>Structure of Matter</td>
<td>MATB4H1</td>
<td>Techniques of the Calculus of Several Variables I</td>
</tr>
<tr>
<td>or</td>
<td>One additional P.C.C. from other Core and D-level courses in AST, CHM, CISC, ESS, MAT, PHY, or STA</td>
<td>or</td>
<td>or</td>
</tr>
<tr>
<td>PHYA10H</td>
<td>PHYC32H</td>
<td>PSCD02H</td>
<td>Techniques of the Calculus of Several Variables II</td>
</tr>
<tr>
<td>Dynamics of Classical Systems</td>
<td>Current Questions in Mathematics &amp; Science</td>
<td>Computers in Contemporary Science</td>
<td>or</td>
</tr>
<tr>
<td>or</td>
<td>or</td>
<td>or</td>
<td>or</td>
</tr>
<tr>
<td>PHYA21H</td>
<td>or</td>
<td>or</td>
<td>or</td>
</tr>
<tr>
<td>Principles of Modern Physics</td>
<td>or</td>
<td>or</td>
<td>or</td>
</tr>
</tbody>
</table>

### Software Engineering Stream

**Supervisor:** G. Capit (872-7253)

Software engineering is concerned with the timely and cost-effective development of quality software. This programme leads to employment opportunities in software development, and to graduate study in computer science.

<table>
<thead>
<tr>
<th>First Year</th>
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<th>Third Year</th>
<th>Fourth Year</th>
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</thead>
<tbody>
<tr>
<td>CISC09H</td>
<td>CISC24H</td>
<td>CISC32H</td>
<td>CISC40H</td>
</tr>
<tr>
<td>Methods and Tools for Software Development</td>
<td>Principles of Programming Languages</td>
<td>Information Systems Analysis and Design</td>
<td>Numerical Algebra and Optimization</td>
</tr>
<tr>
<td>CISC24H</td>
<td>CISC4M4H</td>
<td>CISC51H</td>
<td>CISC83H</td>
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<tr>
<td>Principles of Programming Languages</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
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<td>CISC51H</td>
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<td>CISC4M4H</td>
<td>CISC51H</td>
<td>or</td>
</tr>
<tr>
<td>Physics of Classical Mechanics</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
<td>or</td>
</tr>
<tr>
<td>PHYB21H</td>
<td>CISC4M4H</td>
<td>CISC51H</td>
<td>or</td>
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<tr>
<td>Physics of Quantum Mechanics</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
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<td>CISC51H</td>
<td>or</td>
</tr>
<tr>
<td>Physics Laboratory</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
<td>or</td>
</tr>
</tbody>
</table>

### Computer Science

**Supervisor:** Y. An (872-556)

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 specialisation certificate 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

Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or university. The timing of work placements for students who receive transfer credits will depend upon the particular university courses completed. Applicants must indicate the special code for this University of Toronto at Scarborough programme on 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. It is considered for the first round of selection, applicants must return the co-op application by the following deadlines. Current co-op candidates: March 1. Applicants who applied on the 15th form = April 1. Therefore it is essential that applicants submit the initialDragging at application at least six weeks prior to these dates.

Note that enrolment in the programme is limited. Admission is granted on the basis of the applicant’s academic performance, background in relevant subjects and an interview with a high school or university instructor in mathematics or science.

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 (full units) 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 the final work term only if they have completed 10 credits. Students are required to go on placement during the second term of the second year, immediately following the completion of the 10 credits required. The work term opportunities are arranged by the Physics Science Division, but must be taken in conjunction with all applicants for the position.

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 (including their third work term).

To maintain standing in the programme, the student must be eligible for a work term, and must maintain satisfactory performance on each work term report.

For Programme outlines, please refer to the description of the Specialist Programme in Computer Science. Note that courses not marked as courses in the indicated order, but if an 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 ENSURE 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 10 F.C.E.’s.

Normally, students return to their studies after each work term (and must be registered in courses after the completion of their last work term).

CSPS01 - CSP02 Computer Science Co-op Work Term

Work terms are an integral part of the co-op curriculum. Practical work experience in a 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. Students who fail satisfactory on a co-op programme is based on a student’s ability to meet both 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. The course credit of F.C.E. is granted for each four month work period. Work term credit is in addition to the 20 full-course degree requirements and are graded on a C, D, F, No Credit, pass, A, B, C, D, or E basis.

ADDITIONAL COURSE FEES FOR WORK TERMS.

MAJOR PROGRAMME IN COMPUTER SCIENCE

Supervisor: G. Capit (287-7223)

NOTE: Registration in this programme is required. A maximum of thirty students will be admitted annually to the second year of the programme. Selection will be based on marks in first-year courses in Computer Science and Mathematics.

First full-course equivalents are required. The courses not be taken in the order given, but care must be taken to ensure that prerequisites are satisfied and conflicts avoided.

First Year:

CSCA06H Introduction to Computer Programming
CSCA15H Introduction to Computer Programming (or equivalent computer programming experience)
MAT126Y Calculus
MAT123H Linear Algebra I

Second Year:

CSCB32H Fundamental Data Structures and Techniques
CSCB33H Combinatorics
CSCB35H Discrete Mathematics
CSCB37H Data Structures and Data Management
CSCB38H Computer Organization
CSCB39H Linear Algebra II
MATB42H Techniques of the Calculus of Several Variables I
MATB44H Techniques of the Calculus of Several Variables II

Third or Fourth Year:

Four half-courses to be chosen from the following options:

(i) at least one of: CSCC04H, CSCC05H, CSCC06H, CSCC07H, CSCC08H, CSCC09H, CSCC10H, CSCC11H, St. George half-courses CSCC01H, CSCC02H, CSCC03H, CSCC04H, CSCC05H, CSCC06H, CSCC07H, CSCC08H, CSCC09H, CSCC10H, CSCC11H, St. George half-courses CSCC01H, CSCC02H, CSCC03H, CSCC04H, CSCC05H, CSCC06H, CSCC07H, CSCC08H, CSCC09H, CSCC10H, CSCC11H, St. George half-courses CSCC01H

Second or third of these courses must be at the 300 level.

The Why and How of Computing

Introduction to computer sciences, mathematics and science. This course includes a study of system operations (input/output, file, security, common applications (games, word processing, spreadsheet), and online solving basic programming concepts). Other applications and languages include: data organisation, utilities, animation, electronics, micromouse. Students are encouraged to bring in their own computers. Students are required to show to the instructors who are familiar with the course. Students are required to prepare for the course and to work on similar projects to those of the course. Students are encouraged to work on similar projects to those of the course.

The Why and How of Computing

An introduction to basic concepts and terminology.

Introduction to computer sciences, mathematics and science. This course includes a study of system operations (input/output, file, security, common applications (games, word processing, spreadsheet), and online solving basic programming concepts). Other applications and languages include: data organisation, utilities, animation, electronics, micromouse. Students are encouraged to bring in their own computers. Students are required to show to the instructors who are familiar with the course. Students are required to prepare for the course and to work on similar projects to those of the course. Students are encouraged to work on similar projects to those of the course.
CSC859H3 Introduction to Computer Science

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. Composition of several searching and sorting algorithms.

Students who have insufficient programming experience must take CSCA06 before CSC859. Consult the instructor or supervisor of studies for guidance and for a copy of the information sheet "Can I Skip Computer Science A06?". Students who enrol in CSC859 and find the course too difficult may "drop down" to CSCA06. The deadline for "dropping down" is October 15. (The option of "dropping down" is not available in the spring, since CSCA06 is not offered in that session.)

Exclusion: CSCA57H, CSCA58H, CSC110

Prerequisite: OAC in Algebra and Geometry, or any other OAC in mathematics and sufficient programming experience.

CSC859H3 Methods and Tools for Software Development

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; during the course programming in C will be introduced.

Exclusion: CSCA57H, CSCA58H, CSC110

Prerequisite: OAC in Algebra and Geometry, or any other OAC in mathematics and sufficient programming experience.

CSC230H3 File Structures and Data Management

An introduction to techniques for storing, accessing, and managing long-term data in computer systems. Hardware and software aspects of data processing, storage devices, communications, file I/O control and manipulation techniques for organizing and managing files: sequential files, direct files, indexed files, multitype files, integrated files, file systems. Introduction to file management: file structures, file retrieval, and file systems with emphasis on relational data base systems.

Exclusion: CSC228

Prerequisite: CSC25H, CSC27H

CSC339H3 Discrete Mathematics for Computer Science

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: CSC228

Prerequisite: CSC25H

CSC359H3 Computer Organization

This course is designed to give students an understanding of the operation of the hardware of a modern digital computer. Specific topics include: an introduction to Boolean algebra, the design and analysis of data networks, memory devices, the organization of a simple microprogrammed machine, basic data representation, assembly language, addressing structures, 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 will conduct experiments with digital logic circuits.

Enrollment limit: 100

Exclusion: CSC228

Prerequisite: CSC25H or CSCA57H

CSC370H3 Fundamental Data Structures and Techniques

Standard programming methodologies, with an introduction to C and C++. Use of classes to represent abstract data types, graph representation and graph algorithms. Simulation: Data structures and program organization for simulation. Representation of floating-point numbers; introduction to numerical methods; optimization techniques for numerical programming. Throughout the course, programming assignments stress both the proper use of abstract data types (lists, stacks, trees, and graphs) and the ability to write larger, more complex programs.

Prerequisite: CSC228

Pre-course: MATASA2Y & one A-level science course.

CSC379H3 Principles of Programming Languages

A wide variety of programming styles and the programming languages that support them. Emphasis on recursion and concurrency; other programming paradigms such as backtracking and constraint languages, language features such as pattern matching, progress as data, and

Exclusion: CSC228

Prerequisite: CSC25H, CSC27H

CSC469H4 Effective and Efficient Computing


Exclusion: CSC36A

Prerequisite: CSC25H

CSC779H3 Data Structures and Algorithms

Analysis

Abstract data types such as priority queues and dictionaries. Advanced data structures for main memory resident information, such as binary heaps, leftist trees, self-adjusting lists and balanced search trees. Analysis algorithms: worst case, average case, and amortized complexity. Introduction to lower bounds. Emphasis is given to problem solving and a theoretical approach to the data structures.

Exclusion: CSC27H

Prerequisite: CSC27H & CSC35H

CSC80H3 Microprocessor Systems

A study of hardware and software aspects of microcomputers and microprocessors.

This course will examine instruction sets, addressing modes, memory devices, buses, multiprocessor and interrupt mechanisms. Assembly language and high-level language programming. System and applications software. Laboratory experiments will provide hands-on experience.

Enrollment limit: 45

Exclusion: EC3035

Prerequisite: EC3035

CSC181H4 Computer Graphics

Identification and characterization of the objects manipulated in computer graphics, the output devices on these objects, efficient algorithms for these operations, and interfaces to transform one type of object to another. Display devices, display data structures and procedures, graphical input, object editing, ray tracing, transformations, illumination models, primary and secondary light effects, graphics packages and systems. Software, individually or in teams, using one or both of the graphical algorithms or entire graphics systems.

Exclusion: CSC18

Prerequisite: MATASA4Y, CSC25H (up to 1997) or CSC25H (since 1997)

Regulated Preparation: CSC25H

CSC25H3 Effective and Efficient Computing


Exclusion: CSC36A

Prerequisite: CSC25H

CSC779H3 Data Structures and Algorithms

Analysis

Abstract data types such as priority queues and dictionaries. Advanced data structures for main memory resident information, such as binary heaps, leftist trees, self-adjusting lists and balanced search trees. Analysis algorithms: worst case, average case, and amortized complexity. Introduction to lower bounds. Emphasis is given to problem solving and a theoretical approach to the data structures.

Exclusion: CSC27H

Prerequisite: CSC27H & CSC35H

CSC80H3 Microprocessor Systems

A study of hardware and software aspects of microcomputers and microprocessors.

This course will examine instruction sets, addressing modes, memory devices, buses, multiprocessor and interrupt mechanisms. Assembly language and high-level language programming. System and applications software. Laboratory experiments will provide hands-on experience.

Enrollment limit: 45

Exclusion: EC3035

Prerequisite: EC3035

CSC181H4 Computer Graphics

Identification and characterization of the objects manipulated in computer graphics, the output devices on these objects, efficient algorithms for these operations, and interfaces to transform one type of object to another. Display devices, display data structures and procedures, graphical input, object editing, ray tracing, transformations, illumination models, primary and secondary light effects, graphics packages and systems. Software, individually or in teams, using one or both of the graphical algorithms or entire graphics systems.

Exclusion: CSC18

Prerequisite: MATASA4Y, CSC25H (up to 1997) or CSC25H (since 1997)

Regulated Preparation: CSC25H

CSC25H3 Effective and Efficient Computing


Exclusion: CSC36A

Prerequisite: CSC25H
Courses Not Offered in 1989-1990

MAT 237H3
Combination
Prerequisite: MAT 134H4 (CR/CB/CH) & at least one other B-level course in mathematics or computer science

MAT 232H3
Graph Theory and Algorithms for its Applications
Exclusion: (MCC 233) or (MCC 235) or (CSC 235H1) or (CSC 237H1) & at least one other B-level course in Mathematics or Computer Science

CSC 454H3
Computer-Based Simulation Models
Exclusion: CSC 434
Prerequisite: CSC 270H (CSC 274H) & STAB 471H

Environmental Science
(BSc)

Faculty List
R. B. Byrne, B.A. (Dublin), Ph.D. (Sheffield), Professor
N. B. E. M. (Leicester), M.Sc. (Memorial University Newfoundland), Ph.D. (East Anglia), D.Sc. (Leicester), Professor
B. Greenwood, B.Sc., Ph.D. (Brussels), Ph.D. (Brussels), Professor
K. W. J. Howard, B.Sc., M.Sc., Ph.D. (Birmingham), Professor
C. McDougall, Ph.D., B.Sc., D.Sc. (University College London), Professor
V. Timmer, B.Sc., M.Sc., (University of New Brunswick), Ph.D. (Cornell), Professor
J. A. Westgate, B.Sc. (Reading), Ph.D. (Alberta), Professor
D. Williams, B.Sc. (University College, North Wales), Dip. Ed. (Liverpool), M.Sc., Ph.D. (Waterloo), D.Sc. (Waterloo), Professor
W. A. Gough, B.Sc., M.Sc. (Toronto), Ph.D. (McGill), Associate Professor
A. Price, B.Sc., Ph.D. (Waterloo), M.Sc., Ph.D. (McGill), Associate Professor
E. Williams, B.Sc. (Queen's), M.Sc. (Waterloo), Ph.D. (Toronto), Associate Professor
K. K. B. S. K. (Waterloo), Associate Professor
A. Pollock, B.Sc., Ph.D. (Guelph), Assistant Professor
E. W. L. L. (University of Toronto), B.Sc., M.Sc., (Toronto), Professor
A. J. A. (Florida State), Ph.D. (London), Adjunct Associate Professor

Specialists in Environmental Science

Discipline Representative: A.G. Price

Human Activity is a major cause of environmental change and the rate of 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, climate change, depletion of resources, extinction of species and problems of waste disposal are all a result of the lack of understanding of environmental systems and processes. Environmental degradation has an impact not only on human beings but on all species and most natural systems, so that in understanding requires approach and skills from many areas such as, biology, chemistry, mathematics, physics, earth science and ecology. Such an integrated approach need not only a good understanding of the causes of environmental change and degradation, but also a more complete understanding of the mechanisms through which environmental change has an impact on living creatures.

A Specialist Programme with three streams, a Major Programme, a Minor Programme and, in addition, a Co-op Specialist Programme are all available within Environmental Science. The three specialist 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 in the first two years; this reflects the strong interdisciplinary requirements of an integrated approach to the study of the environment and allows students to switch between programmes if they wish.

Please refer to the Physical Sciences Scarborough preambles on pages 102 for a list of the Programmes offered.

Descriptions of these programmes will be found on the subsequent pages in this section.

Specialist (Co-operative) Programme in Environmental Science

Programme Coordinator: Y. Ali (287-7254)

The Co-operative Programme allows students to take 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 earth science. The programme is broad-based for the practicing environmental scientist and including studies in the areas of: Environmental Law; Environmental Impact Assessment; Remote Sensing and Geographical Information Systems; Scientific Computing. Statistics. One of the features 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-opordinator in securing appropriate placements. In addition, a Special Term Salary is paid exclusively for Co-op students. This provides a forum for interaction with environmental scientists from consulting companies, industrial companies, government agencies and non-governmental organizations.

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 operations, regulatory agencies, non-governmental environmental and development organizations and research and teaching.

There are obvious linkages between the Co-operative Programme in Environmental Science and other Co-op programmes at Scarborough, such as the International Development Studies Programme, since the relationships between development and environmental changes are generally acknowledged.

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 with a work of work placements for students who receive transfer credits who depend upon the particular university courses completed. Applicants must indicate the special code for the University of Toronto at Scarborough programme on the Application for Admission to the Co-operative University. Once the University of Toronto is notified of the application, candidates are sent an application form to complete. To be considered for a place on the waiting list, applicants must return the co-op application
### Specialist Programme in Environmental Science

**Supervisor:** W. Dough (97-95)

This programme is a response to rising student interest in Environmental Science and its new and emerging demands, and the role of the three specialist streams: a broadly based study of Environmental Science, and an opportunity to undertake courses in a particular area of environmental specialisation. Enrolment is limited to eight students.

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<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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</thead>
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<td><strong>EUSA02</strong></td>
<td><strong>EUSA03</strong></td>
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<tr>
<td>Introduction to Environmental Science</td>
<td>Geography and Geology</td>
<td>Environmental Chemistry</td>
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<tr>
<td><em>EUSA035Y</em></td>
<td><em>EUSA035Y</em></td>
<td><em>EUSA035Y</em></td>
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<tr>
<td>Introduction to Mathematical Modelling</td>
<td>Introduction to Scientific Computing</td>
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<tr>
<td><em>EUSA010H</em></td>
<td><em>EUSA010H</em></td>
<td><em>EUSA010H</em></td>
</tr>
<tr>
<td>Calculus</td>
<td>Physical Chemistry</td>
<td>Environmental Chemistry</td>
</tr>
</tbody>
</table>

**Special Emphasis Courses:**
- *EUSA035Y*
- *EUSA035Y*
- *EUSA035Y*

**Associate Programmes:**
- Environmental Chemistry
- Environmental Biology
- Environmental Geology

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### Course Descriptions

- **Environmental Science:**
  - Introduction to Environmental Science
  - Geography and Geology
  - Environmental Chemistry

- **Mathematics:**
  - Calculus
  - Physical Chemistry
  - Environmental Chemistry

- **Geoscience:**
  - Introduction to Scientific Computing
  - Introduction to Scientific Computing
  - Introduction to Scientific Computing

- **Chemistry:**
  - Environmental Chemistry
  - Environmental Chemistry
  - Environmental Chemistry

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### Additional Resources

- [Environmental Chemistry](#)
- [Environmental Biology](#)
- [Environmental Geology](#)

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### Notes

- The programme is highly flexible, allowing students to tailor their study to their interests.
- Students are encouraged to consult with the supervisor for guidance.
- The programme requires a minimum of 90 ECTS credits to complete.

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### Further Information

For more details on the Specialist Programme, students are encouraged to consult with the Environmental Science program coordinator or the University's academic advisors.
Remote Sensing & Geographic Information Systems
Fundamentals of GIS and remote sensing: spatial data types, data capture, data input and output formats, geographical and coordinate systems, topology, spatial analysis techniques, data output and report production. Applications of GIS technology to the management of environmental problems. (4 hours of field work.)

Coastal Geomorphology
The basic hydrodynamics and sediment transport processes which control the morphological forms and morphodynamic behavior (e.g., erosion, accretion etc.) of coastal systems and the current processes arising from the use and abuse of this dynamic environment by humans (e.g., shoreline recession, pollution transport, etc.). Practical work will focus on the Canadian Great Lakes System (specifically the Starnborough and Toronto Waterfronts) through field excursions, maps and projects. One two-hour lecture per week and one two-hour practical/seminar every other week. (Exclusion: CoS5115)

Groundwater
Groundwater represents the world's largest and most important fresh water resource. This basic course in hydrogeology introduces the principles of groundwater flow and aquifer storage and shows how a knowledge of these fundamental tools is essential for effective groundwater resource management and protection. Special emphasis is placed on the practical methods of resource exploration and evaluation; examples of the approach are given for aquifers under environmental stress in southern Ontario, the US and Africa. (Exclusion: E8001H and 1 P.C.E. in B-level E8005 courses, or permission of the instructor.)

Environmental Impact Assessment
An overview of the relevant legislation, qualitative and quantitative approaches and applications for environmental impact assessments. Emphasis on the assessment of impacts on the natural environment, as well as socio-economic impacts. Examples and case studies from forestry, biology and earth science. Two hours of lecture and one tutorial hour per week. (Exclusion: G9193, IN220, G9144)

Research Seminar in Environmental Science
Current methods developed in Environmental Science will be applied to practical environmental problems, within the framework of individual or group projects; a research proposal and a research seminar will be produced. The course is also designed to ensure interaction between students from disparate streams of environmental science through participation in joint seminars with faculty and which environmental practitioners from the community at large. Three hours of instruction per week.

Field Course
Designed to familiarize the students with field work in the Earth Sciences, many environmental problems can be only assessed by collecting geological and other data in the field. This course is designed for students in the Environmental Systems Stream, but students in other 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 Environmental Systems.

The camp will be held in alternate years in Costa Rica (May) or the Rocky Mountains (September). (Exclusion: E9001H and 1 P.C.E. in B-level E8005 courses, or permission of the instructor.)

Introductory Agriculture
The roles that trees and forests play in agricultural land-use systems primarily in the third world. Reference will be made to the management of natural forests, and the role of plantation forestry in development while the primary focus will be on agroforestry systems. Primarily the biological and management aspects and sustainability of agroforestry systems within the socio-economic constraints of the developing world. Agroforestry has been recognized as one of the few areas in which technology transfer has been "from south to north" and consequently its role in the temperate zone will be discussed. Two hours of lecture and two hours of tutorials per week. (Exclusion: G9193, E9101H and 2 additional P.C.E. in E8005 or permission of the instructor.)

Soil Erosion Control
many sciences and mathematics, some of the "pure" mathematics has turned out to be essential in many aspects of 20th century science. Differential geometry provides the language for general relativity and cosmology, and Hilbert space theory and group representations are the tools for quantum mechanics. Similarly, graph theory, combinatorics and number theory play a major role in computer science.

Please refer to the Physical Sciences Scarborough overview on page 102 for a list of the programmes offered. Descriptions of these programmes will be found on subsequent pages of this section.

<table>
<thead>
<tr>
<th>Programme</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>SPECIALIST PROGRAMME IN MATHEMATICS</strong></td>
<td>Supervisors: K. Moen (287-7276) 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 comparable to the Specialist Programme in Mathematics and Applications on the St. George Campus.</td>
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<thead>
<tr>
<th>First Year</th>
<th>MAT220H Introduction to Computer Science</th>
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<tbody>
<tr>
<td></td>
<td>MAT231H Linear Algebra I</td>
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<td>MAT232H Linear Algebra II</td>
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<td>PHY231H Introduction to Modern Physics</td>
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<td>MAT235H Classical Plane Geometry and their Transformations</td>
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<td>MAT237H Introduction to Number Theory</td>
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| Third Year | MAT244H Ordinary Differential Equations |
|           | MAT246H Differential Equations |
|           | STA247H Introduction to Probability Theory and Mathematical Statistics |

| Fourth Year | MAT250H Chaos, Fractals and Dynamics |
|            | PHY252H Graph Theory and Algorithms for Data Analysis |
|            | MAT253H Graph Theory and Algorithms for Data Analysis |
|            | CSC255H Numerical Algorithms and Optimization |
|            | CSC257H Numerical Approximation, Integration and Ordinary Differential Equations |

1.0 F.C.E. from MAT at B-, C-, or D-level.

| Fourth Year | MAT248H Ordinary Differential Equations |
|            | PHY249H Fields and Groups |
|            | MAT246H Differential Equations |

| Fourth Year | MAT250H Chaos, Fractals and Dynamics |
|            | PHY252H Graph Theory and Algorithms for Data Analysis |
|            | MAT253H Graph Theory and Algorithms for Data Analysis |
|            | CSC255H Numerical Algorithms and Optimization |
|            | CSC257H Numerical Approximation, Integration and Ordinary Differential Equations |

1.0 F.C.E. from MAT at B-, C-, or D-level.

| Fourth Year | CSC270H Fundamental Data Structures and Techniques |
|            | CSC271H Introduction to Computer Science |

| Fourth Year | CSC270H Fundamental Data Structures and Techniques |
|            | CSC271H Introduction to Computer Science |

1.0 F.C.E. from CSC at B-, C-, or D-level.

| Fourth Year | CSC280H Introduction to Computer Science |
|            | CSC281H Introduction to Computer Science |
|            | CSC282H Introduction to Computer Science |

1.0 F.C.E. from CSC at B-, C-, or D-level.

**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 | MAT220H Linear Algebra II |
|           | MAT230H Groups and Symmetry |
|           | MAT240H Techniques of the Calculus of Several Variables I |
|           | MAT242H Techniques of the Calculus of Several Variables II |
|           | STA232H Statistics |

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| Third Year | MAT244H Ordinary Differential Equations |
|           | MAT246H Differential Equations |
|           | STA247H Introduction to Probability Theory and Mathematical Statistics |

| Fourth Year | MAT250H Chaos, Fractals and Dynamics |
|            | PHY252H Graph Theory and Algorithms for Data Analysis |
|            | MAT253H Graph Theory and Algorithms for Data Analysis |
|            | CSC255H Numerical Algorithms and Optimization |
|            | CSC257H Numerical Approximation, Integration and Ordinary Differential Equations |

1.0 F.C.E. from MAT at B-, C-, or D-level.

| Fourth Year | MAT248H Ordinary Differential Equations |
|            | PHY249H Fields and Groups |
|            | MAT246H Differential Equations |

| Fourth Year | MAT250H Chaos, Fractals and Dynamics |
|            | PHY252H Graph Theory and Algorithms for Data Analysis |
|            | MAT253H Graph Theory and Algorithms for Data Analysis |
|            | CSC255H Numerical Algorithms and Optimization |
|            | CSC257H Numerical Approximation, Integration and Ordinary Differential Equations |

1.0 F.C.E. from MAT at B-, C-, or D-level.

| Fourth Year | CSC270H Fundamental Data Structures and Techniques |
|            | CSC271H Introduction to Computer Science |

1.0 F.C.E. from CSC at B-, C-, or D-level.

| Fourth Year | CSC280H Introduction to Computer Science |
|            | CSC281H Introduction to Computer Science |
|            | CSC282H Introduction to Computer Science |

1.0 F.C.E. from CSC at B-, C-, or D-level.
MATH2425 Calculus A
First term of MAT2458. Students in academic difficulty are encouraged to enroll in MAT2458 and to withdraw from MAT2425 if they do not make progress.

MATH2425 Calculus B
Second term of MAT2458; the final examination includes topics covered in MAT2458. Offered in the Summer Session only. Students should have completed MAT2458.

MATH2425Introduction to Calculus
An introductory course in calculus designed for students who have not had previous experience with calculus. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Optimization
Areas to be covered include: convex functions, basic techniques and examples, and applications to optimization. Time permitting, students are expected to complete the optimization course for further study in mathematics and its applications.

MATH2425: Linear Algebra II
Fields, vector spaces over a field, linear transformations, dual spaces, linear independence, basis, and invertible matrices. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Stochastic Processes
An introduction to the basic concepts and techniques of stochastic processes, including Markov chains, Poisson processes, and queuing theory. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Calculus
A first course in calculus designed for students who have not had previous experience with calculus. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Linear Algebra I
Matrices, linear transformations, and systems of linear equations. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Real Analysis
An introduction to the basic concepts and techniques of real analysis, including limits, continuity, and differentiation. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Complex Analysis
An introduction to the basic concepts and techniques of complex analysis, including complex functions, integration, and series. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Algebra
An introduction to the basic concepts and techniques of algebra, including groups, rings, and fields. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Topology
An introduction to the basic concepts and techniques of topology, including point-set topology and algebraic topology. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Differential Equations
An introduction to the basic concepts and techniques of differential equations, including first-order and second-order equations. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Numerical Analysis
An introduction to the basic concepts and techniques of numerical analysis, including numerical linear algebra and numerical methods for solving differential equations. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Probability Theory
An introduction to the basic concepts and techniques of probability theory, including random variables, distributions, and stochastic processes. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Mathematical Statistics
An introduction to the basic concepts and techniques of mathematical statistics, including estimation, hypothesis testing, and regression analysis. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Combinatorics
An introduction to the basic concepts and techniques of combinatorics, including counting, graph theory, and enumeration. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Graph Theory
An introduction to the basic concepts and techniques of graph theory, including graphs, trees, and networks. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Number Theory
An introduction to the basic concepts and techniques of number theory, including divisibility, congruences, and Diophantine equations. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Algebraic Geometry
An introduction to the basic concepts and techniques of algebraic geometry, including affine and projective varieties, and the Zariski topology. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Algebraic Topology
An introduction to the basic concepts and techniques of algebraic topology, including homotopy and homology. The course aims to build a foundation for further study in mathematics and its applications.

MATH2425: Introduction to Algebraic Geometry
An introduction to the basic concepts and techniques of algebraic geometry, including affine and projective varieties, and the Zariski topology. The course aims to build a foundation for further study in mathematics and its applications.

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MATH2425: Introduction to Algebraic Geometry
An introduction to the basic concepts and techniques of algebraic geometry, including affine and projective varieties, and the Zariski topology. The course aims to build a foundation for further study in mathematics and its applications.
MAT244H3 Ordinary Differential Equations
FMAT301H Groups and Symmetry
MAT319H3 Introduction to Number Theory
MAT335H3 Classical Plane Geometry and their Transformations
MAT350H3 Introduction to Real Analysis
MAT364H3 Introduction to Combinatorics
MAT368H3 Differential Equations
MAT454H3 Complex Variables II
MAT463H3 Graph Theory and Algorithms
MAT484H3 Combinatorics
MAT495H3 Special Programmes in Physical and Mathematical Sciences

MATH323H3 Combinatorics

First Year:
AST2H7Y Introduction to Astronomy

Second Year:
AST3B1H Celestial and Classical Mechanics

Third Year:
MAT244H4 Linear Algebra II

Fourth Year:
MAT454H3 Complex Variables II

The Division offers an interdisciplinary Specialist Programme with two streams oriented 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.

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: G. Messer (607-1267)
Physical Sciences / Physical Sciences Scarborough

and any three of:

- CSCB38B
- Computer Science
- CSCB39F
- Fundamental Data Structures and Techniques
- MATC20H
- Groups and Symmetry
- MATC20H
- Fields and Groups
- MATC25H
- Classical Plane Geometry and their Transformations
- MATC31H
- Introduction to Number Theory
- PHYB21H
- Electricity and Magnetism
- PHYB21H
- Principles of Classical Physics
- PHYA10H
- Principles of Modern Physics
- PHYA10H
- Dynamics of Classical Systems
- PHYA10H
- Principles of Modern Physics

Second Year:

- ASTB30H
- Celestial and Classical Mechanics
- CHM22Y
- Introductory Physical Chemistry
- CSCB38H
- Computer Organization
- MATB41H
- Techniques of the Calculus of Several Variables I
- MATB42H
- Techniques of the Calculus of Several Variables II
- PHYB30H
- Classical and Quantum Waves
- PHYB31H
- Electricity and Magnetism
- STA212H
- Statistics

Third Year:

- CSCB30H
- Physical Principles of Modern Technology
- MATC31H
- Chaos, Fractals and Complexity

Fourth Year:

- ASTC50H
- Structure and Evolution of Astrophysical Bodies
- ASTC51H
- Stellar Systems, Galaxies and Cosmology
- PHYB231H
- Electricity and Magnetism
- PHYB232H
- Electronics

Fourth Year:

- PSCD01H
- Current Questions in Mathematics and Science

**NOTE:** If CSCB38H is chosen, then CSCB39F must be included for entry to CSCB30H and CSCB31H; the only permissible prerequisite for CSCB38H is CSCB38H

- **NOTE:** ASTC50H and ASTC51H are given in alternate years.
Physics is the study of the basic laws that govern how material objects move and influence each other. The effects 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 electromagnetic and magnetic effects so beautifully synthesized in Maxwell's theory of electromagnetism. From these basic principles many of the properties of gases, liquids, solids, plasmas, and nuclear matter can be related to the interactions among the individual spins of which these forms of matter are composed.

Physics allows us to describe the properties of light, sound and heat up to the point where these enter our senses, as well as 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, theorems that can accurately describe physical phenomena that they may be used to predict the results of many carefully controlled experiments. The study of physics, therefore, involves both mathematics and the techniques of experimentation.

At the University of Toronto in Scarborough, a student interested in Physics can take the Specialized Programme in Mathematical and Physical Sciences (Physical Sciences stream) and the Specialist Programme in Physical Sciences (Mathematics stream). In addition, there is a Cooperative Programme in Computer Science and Physical Sciences. In either stream, students are encouraged to take courses in Physical Sciences. In addition, there is a Cooperative Programme in Computer Science and Physical Sciences.

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# NEW COURSE TO BE OFFERED

**PHYS2B1H**

**Introduction to Quantum Physics**

Prerequisites: Completion of First-year Physics 1.0 course equivalent and completion of one full year of Mathematics 1.0 course equivalent.

This is a computer based course. Lectures and assignments use MAPLE, the symbolic programming language.
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```
# PHYS2A1H Principles of Classical Physics

Introduction to classical physics for those with some background in physics. It is similar in content to PHYS1A10, 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 equation, thermodynamics: temperature, entropy, ideal gases.

Two lectures and one tutorial each week and a three-hour laboratory every second week.

**PHYS2A1H**

Exclusions: PHYS1A10, PHYS1A11, PHYS1A12

Catalogue Numbers: N/A

Prerequisites: Any course in Calculus and/or Physics.

Corequisites: PHYS11A1H or PHYS11A2H

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```
# PHYS2B1H Electricity and Magnetism

A study of Coulomb's law, electric fields, Gauss' law, electric potential, capacitance, dielectrics, magnetic forces and fields, inductance, magnetization, Faraday's law, displacement current, Maxwell's equations.

Exclusions: PHYS2B1H

Prerequisites: PHYS1A11, PHYS1A12 or PHYS1A1H

Corequisites: MAT2B1H

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```
# PHYS2C1H Electronics

A study of non-linear elements including diodes and transistors, rectifiers, small signal amplifiers, pulse circuits, operational amplifiers, logic gates, Boolean algebra, digital electronics. Includes a three-hour laboratory every second week.

Prerequisites: PHYS1A10 or PHYS1A11

Corequisites: PHYS2B1H

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# PHYS2D1H Physics Laboratory

Experiments in circuit theory, basic electricity and magnetism, solid state physics and atomic and nuclear physics. A six-hour laboratory every two weeks.

Prerequisites: PHYS2B1H

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# PHYS2E1H Structure of Matter

Introduction to the quantum description of electronic properties of atoms, molecules and solids (including semiconductor and superconductors); subatomic physics of elementary particles and structure of nuclear matter. Course includes discussions of Perimeter and Bose- Einstein distributions.

Prerequisites: PHYS2E1H

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# PHY1A1H Dynamics of Classical Systems

An introduction to classical mechanics: statics, laws of motion and gravitation, energy and momentum, angular motion, planetary motion; mechanics of fluids: density and elasticity, thermal expansion, fluids at rest, fluids in motion; and thermodynamics: ideal gases, kinetic theory, temperature, internal energy, entropy, the laws of thermodynamics.

Two lectures and one tutorial per week, and a three-hour laboratory every second week.

Exclusions: PHYS1A0H, PHYS1A1H, PHYS1A12

Catalogue Numbers: N/A

Prerequisites: Any course in Calculus and/or Physics.

Corequisites: MAT1A2H or MAT2A2Y (or with consent of Physics instructor MAT2A2H)

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# PHYS2A1H Classical and Quantum Waves

A study of harmonic motion, damping, driven and coupled oscillations, standing and traveling waves, interference and diffraction, normal modes; wave functions in quantum theory; wave-particle duality; de Broglie matter waves; wave mechanics of 1-dimensional systems.

Exclusions: PHYS2A1H, PHYS1A12

Catalogue Numbers: N/A

Prerequisites: PHYS1A0H and PHYS2A1H

Corequisites: MAT1A2H or MAT2A2H

```

```
# PHYS2B1H Principles of Classical Physics

An introduction to classical physics for those with some background in physics. It is similar in content to PHYS1A10, 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 equation, thermodynamics: temperature, entropy, ideal gases.

Two lectures and one tutorial each week and a three-hour laboratory every second week.

Exclusions: PHYS1A10, PHYS1A11, PHYS1A12

Catalogue Numbers: N/A

Prerequisites: Any course in Calculus and/or Physics.

Corequisites: MAT1A2H or MAT2A2Y

```

```
# PHYS2C1H Electricity and Magnetism

A study of Coulomb's law, electric fields, Gauss' law, electric potential, capacitance, dielectrics, magnetic forces and fields, inductance, magnetization, Faraday's law, displacement current, Maxwell's equations.

Exclusions: PHYS2B1H

Prerequisites: PHYS1A11, PHYS1A12 or PHYS1A1H

Corequisites: MAT2B1H

```

```
# PHYS2D1H Electronics

A study of non-linear elements including diodes and transistors, rectifiers, small signal amplifiers, pulse circuits, operational amplifiers, logic gates, Boolean algebra, digital electronics. Includes a three-hour laboratory every second week.

Prerequisites: PHYS1A10 or PHYS1A11

Corequisites: PHYS2B1H

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# PHYS2D1H Physics Laboratory

Experiments in circuit theory, basic electricity and magnetism, solid state physics and atomic and nuclear physics. A six-hour laboratory every two weeks.

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# PHYS2E1H Structure of Matter

Introduction to the quantum description of electronic properties of atoms, molecules and solids (including semiconductor and superconductors); subatomic physics of elementary particles and structure of nuclear matter. Course includes discussions of Perimeter and Bose- Einstein distributions.

Prerequisites: PHYS2E1H

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Introduction to the quantum description of electronic properties of atoms, molecules and solids (including semiconductor and superconductors); subatomic physics of elementary particles and structure of nuclear matter. Course includes discussions of Perimeter and Bose- Einstein distributions.

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Prerequisites: PHYS2E1H

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Introduction to the quantum description of electronic properties of atoms, molecules and solids (including semiconductor and superconductors); subatomic physics of elementary particles and structure of nuclear matter. Course includes discussions of Perimeter and Bose- Einstein distributions.

Prerequisites: PHYS2E1H

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Prerequisites: PHYS2E1H

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# PHYS2E1H Structure of Matter

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Prerequisites: PHYS2E1H

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Introduction to the quantum description of electronic properties of atoms, molecules and solids (including semiconductor and superconductors); subatomic physics of elementary particles and structure of nuclear matter. Course includes discussions of Perimeter and Bose- Einstein distributions.

Prerequisites: PHYS2E1H

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# PHYS2E1H Structure of Matter

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Prerequisites: PHYS2E1H

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# PHYS2E1H Structure of Matter

Introduction to the quantum description of electronic properties of atoms, molecules and solids (including semiconductor and superconductors); subatomic physics of elementary particles and structure of nuclear matter. Course includes discussions of Perimeter and Bose- Einstein distributions.

Prerequisites: PHYS2E1H

```

```
# PHYS2E1H Structure of Matter

Introduction to the quantum description of electronic properties of atoms, molecules and solids (including semiconductor and superconductors); subatomic physics of elementary particles and structure of nuclear matter. Course includes discussions of Perimeter and Bose- Einstein distributions.

Prerequisites: PHYS2E1H
Statistics (S.Sc.)

Faculty List
M. Evans, B.Sc. (Western Ontario), M.Sc., Ph.D., Professor

Discipline: Statistics - M. Evans (387-7274)

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 prediction to the design and analysis of experiments to determine the relative efficiencies of different vaccines. STA239H and STA47H 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 preprint on page 102 for a list of the Programmes offered.

Descriptions of these programmes will be found on subsequent pages of this section.

STA239H Statistics

An introduction to probability and statistics.

The emphasis of the course is on motivation and applications and the treatment is essentially non-mathematical. A statistical computer package is used for most computations; however, no previous experience with a computer is required. The course covers descriptive statistics, probability and expectation, correlation and regression, sampling, experimental design, and methods of statistical inference.

While lectures will be held in this course, all course materials will be available from the course website. It is then possible for some students to elect to do this course via the Web. This option is not recommended for students with weak scientific backgrounds.

Exclusion: AMT303, BIOL306, ECON200, ECON201, ECON301, ECON307, ECON356, STA230, STA230H, STA230T.

Prerequisite: PHY455 or one of its exclusions; and MAT104H1.

STA47H3 Multivariate Analysis


Exclusion: STA437.

Prerequisite: STA437.

STA457H3 Regression Analysis


Institution in the use of SAS.

Exclusion: STA437.

Prerequisite: STA437H2.

Courses Offered in 1999/2000

STA239H Experimental Design

Exclusion: STA323H.

Prerequisite: STA239H & STA47H3.

STA37H3 Time Series Analysis

Exclusion: STA457.

Prerequisite: STA323H.

STA263H2 Stochastic Processes

Exclusion: STA347.

Prerequisite: STA47H3.

Politics (B.A.)

Faculty List
S.J. Colman, M.A., (Oxon.), Professor Emeritus
E.G. Andrew, B.A. (British Columbia), Ph.D. (London), Professor
R. Manzer, B.A., Ph.D. (New Bruns.), M.A. (Oxon.), Ph.D. (Harvard), Professor
A. Rubroff, B.A. (Buckingham), M.A., Ph.D. (Chicago), Professor
G. Ewing, B.A., M.A. (Alberta), Ph.D. (British Columbia), Professor
S. Solomos, B.A. (McGill), M.A., Ph.D. (Cambridge), Professor
J. Trachten, B.A., M.A., Ph.D. (Toronto), Professor
D.B. Cook, M.A., Ph.D. (Toronto), Associate Professor
J. Ebyhury, B.Ed., B.A. (West Australia), B.Sc. (London), M.A., Ph.D. (Toronto), Associate Professor
P. Kingson, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Associate Professor
D. Welsh, B.A. (Toronto), A.M., Ph.D. (Harvard), Associate Professor

Physical Sciences

Discipline Representation in Cooperative Studies: D. Cooch (387-7001)

Contemporary states and societies are beset by political crisis and change. International relations have become unstable and unpredictable as the Cold War has ended and a new world order has yet to be constructed. The sovereignty of nation-states and their capacity to implement national policies of economic and social welfare are being eroded by transnational factors 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 populations, reckless use of nuclear weapons, and environmental degradation, threaten the ability of national governments and international organizations to secure human survival. Dealing with these problems is a fundamental necessity for citizens and their governments. In its teaching, research, and community service, the discipline of Political Science works to help in meeting this need.

Political Science is the study of enduring issues of power and authority, citizenship and governance, justice and legitimacy in ancient and modern states and societies. The field of Political Science is divided into the following sub-fields: Canadian Politics, Comparative Politics (Developing and Developed Countries), International Relations and Political Theory. In the area of Canadian Politics, students will learn about the institutions and policies of the Canadian political process. Some of the specific topics dealt with include national unity, elections and political parties, environmental and social policy, and the impact of the global economy on national sovereignty. Courses in comparative politics deal with the problems of political change and development in areas such as Asia, Europe, Latin America, and the Middle East. Political participation and mobilization, transitions to democracy and ethnic and religious conflict are some of the topics dealt with in comparative politics courses. International relations is devoted to studying the foreign policies of particular nation-states and the patterns of conflict and cooperation among states. Political theory explores the ideas, such as justice and legitimacy, that are fundamental to political thought and practice, giving special attention to reading and interpreting the classic expositions of political thought from ancient Greek philosophers to post-modern social theories.
POLA101S Critical Issues of Canadian Democracy
An introduction to the study of politics, focusing on five critical issues of contemporary Canadian democracy. Beginning from a review of approaches to the study of democracy and how they influence democracy, the course examines the threat of Quebec separatism and its impact on national unity, pressures of the global economy on the sovereignty of the Canadian state, conflicts over the current state of a collective means to provide for the basic social needs of all Canadians, changes in the civic culture that underpins democratic political institutions and practices, and priorities for reconstituting representative government for the 21st century. Offered: 1999/2000 and 2000/2001.

T.B.A.

POLA102S Politics, Corruption and Violence in Democratic Societies
An introduction to some of the basic tools of comparative political analysis. It examines the origins and dynamics of corruption and violence in the democratic and international politics of selected less-developed countries. relating the politics of less-developed countries within the contexts of recent developments of the global political economy, the course examines some of the key explanatory tools used in comparative developmental studies. The course is arranged operationally through the use of a detailed examination of corruption and violence in specific countries. 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 cultic states power in Iraq and Syria; the rise of social violence expressed in religious terms in Algeria; and an examination of civil war as an organized system of corruption and violence in the case of Lebanon. This course will conclude with a discussion of the conditions conducive to non-violent political action in the developing world. Offered: 1999/2000 and 2000/2001.
E. Andrew

POLA103S Contours of Conflict: Politics, Society and War Since 1812
An examination of political and social attitudes towards war, and their underlying causes, during the 19th and 20th centuries, as portrayed in films, 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

POLA105S Leaving Home: Politics and Emigration
The study of the political causes and patterns of emigration in the twentieth century. The course examines the variety of political causes for war and revolution, ethnic and racial discrimination, poverty, dilemmas of commitment 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 and 2000/2001.
S. Solomon

POLA121S International Relations I
E. Andrew

POLA122S Domestic Politics in Canada

POLA123S Politics in Literature
An introduction to political issues arising from imaginative rather than academic literature. Aesthetics', 'Eisenstein presents public justice triumphing over private revenge, while 'The Monkey' exhibits the role of self-discipline in ordered societies. 'Shakespeare's Hamlet' examines the tensions between the demands of personal vengeance and publicly recognized guilt. 'Dostoevsky's Grand Inquisitor explores the tension between freedom and security. 'Arendt's The Human's Tail discusses the politics of homosexuality, and Brecht's 'D. Cronander presents our post modern inability to get at the truth of political matters. Offered: 1999/2000 and 2000/2001.
E. Andrew
be explored, in relation to the general economics (administrative and judicial) that underlie the attractive and seductive aspects of contemporary culture. Trends will be broad and varied, but may include the writings of Arthur Koestler on technology, Jean Baudrillard on automation and democracy, Paul Virilio on speed and vision, David Harvey and Fredric Jameson on the cultural logic of late capitalism, as well as novels about "virtual reality" from the science fiction writers J.G. Ballard and William Gibson, and films such as Blade Runner or Johnny Mnemonic.

Prerequisite: Any two-fall course equivalents.

D. Cook

POLC603Y/3 International Relations

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: POLC301Y Prerequisite: Not open to first-year students without permission of the instructor.

D. Welch

POLC703Y/3 Russian Government and Politics

The development of Russian political and social institutions since 1917, with emphasis upon the process of modernization and its effects. The course examines the formation and consolidation of the Russian political order and the urgent problems confronting Russian society today. Exclusion: POLC204Y

S. Solomon

POLC803Y/3 Comparative Politics of Political Development

An examination of the effects which various Western, especially North American, political concepts have had upon development in the Third World. The concepts and practices to be surveyed include those relating to foreign aid, the multi-nation corporation, and Western security. Case material will be drawn from four countries in Latin America and Africa which illustrate a diversity of approaches to development: Cuba, Chile, Ghana, Kenya. Exclusion: POLC204Y

P. Kingston

POLC804Y/3 Comparative Politics of Democratize Government

This course undertakes comparative studies of the structure and process of selected democratic governments in the developed and developing world. It explores various models of parliamentary and presidential government, and introduces students to comparative analysis by examining representative democratic functions. The focus will be on group demands in a representative setting. The theory and practice of the representation of interest groups will be analyzed.

T.R.A.

POLC830Y/3 The Politics of the Environment

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 environmentalism. 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 oceanic layer depletion are examined. Prerequisite: POLC304Y or POLC305Y or POLC309Y or GCR 3001H (GCR 3001Y) or a course in Canadian politics.

G. Stagig

POLC840Y/3 Modern Political Theory

A study of the major political philosophers of the nineteenth and twentieth centuries. Particular emphasis will be placed upon the theories of Karl Marx, J.S. Mill, and Friedrich Nietzsche. The course will also include the selected writings of several major twentieth-century theorists. Exclusion: POLC304Y Prerequisite: POLC304Y or PHIL101Y or SOC400Y

D. Cook

POLC878Y/3 Women in Political and Social Theory

An exploration of male theorists' views of the role of women in state, society, and family and current feminist reformulation of the roles assigned. The first term of the course will be an examination of an engagement between classical ("Western") texts and current feminist reinterpretations. The major texts to be examined are Plato's Republic, Rousseau's Emile, Mill and Taylor's The Subjection of Women, Engels's Origins of the Family, Property and the State, and Freid, Lectures onTranslator, with reinterpretations by S.M. Okin, L. Zang, S. Kassan, C.D. Stephens, N. Chodorow and others. Sources would include S.M. Okin, Women in Western Political Thought, D. Cutler, Women in Political Theory (4th ed.) and M. Shuster and G. Pateman, Feminist Interpretations and

E. Andrew

POLC883Y/3 The New International Agenda

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 state and treatment of women in politics, society, and the global economy; demographic change, migrations, and refugees; emerging and re-emerging infectious diseases; non-proliferation of weapons of mass destruction (nuclear, chemical, biological); and terrorism, law enforcement, and the war on drugs. Prerequisite: POLC604Y or equivalent T.R.A.

POLC893Y/3 Current Topic in Politics

An exploration of approaches to ethnic conflict management in industrial societies. Topics covered include comparison of Canada and United States (First Nations, multiculturalism, Quebecois, and visible minorities), West European issues: conflict, consociation, and treatment of immigrant minorities; Israel and South Africa, East European disintegration: Yugoslavia and Czechoslovakia, and the role of nationalism in the collapse of the former Soviet Union and in post-Soviet developments. Exclusion: POLC304Y Prerequisite: POLC310Y or POL 389Y or POLC 401Y or POLC 595Y or POLC 892Y

D. Schwartz

POLC903Y/3 Politics and Society in the Middle East

A lecture and seminar course examining the evolution and current characteristics of the political issues of the Middle East. Attention will be given to the cultural and international forces which have affected the region. Prerequisites: POLC309Y or ANTH355Y or ECON131J

F. Kingston

POLD603H/3 Political Interests, Political Ideology, and Public Policy

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: POLC605Y or POLC305Y or POLC311H

T.R.A.

POLD813H/3 Topics in Canadian and Comparative Politics

A seminar course that explores selected issues of Canadian 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: POLC505Y or POLC311H or POLC315H

T.R.A.

POLD823H/3 Selected Topics on Developing Areas

This seminar course focuses upon the relationship between market reforms and political change in Latin America. Topics include the role of technocratic elites, popular mobilization and gender issues. Case studies include Mexico, Peru, Bolivia and Chile. Prerequisite: A Social Science or Humanities course on the Third World or Development. I. Tsichlas

POLD823H/3 Supervised Research

A research project under the supervision of a member that will result in the completion of a substantial report or paper acceptable for supervised research. Students wishing to undertake a supervised research project in the Spring term must register in POLD935 in the Fall term. It is the student's responsibility to find a faculty member who is willing to supervise the project, and the student must obtain consent from the supervising instructor before registering for this course. During the Fall term the student must prepare a short research proposal, and both the supervising faculty member and the Supervisor of Studies must approve the research proposal prior to the first day of classes for the Spring term. Prerequisite: Permission of the instructor Staff

POLD935H/3 Political Science
Psychology

(5.0c.)

Faculty List

B. Torres, B.A. (Torres, M.A.), Ph.D. (Michigan) Professor Emeritus
J. Bassull, B.A. (McGill), Ph.D. (Cornell), Professor
G. B. Sanderson, B.Sc. (CUNY), Ph.D. (NTU), Professor
G. C. Vazquez, M.A. (Michigan), Professor
R. K. Dunn, B.A. (Wellesley), Ph.D. (Minnesota), Professor
S. E. Fox, B.A. (Drexel), Ph.D. (California), Associate Professor
J. M. Kennedy, B.Sc. (Belfast), Ph.D. (Pennsylvania), Associate Professor
A. Juskis, B.A., M.A., Ph.D. (UCLA), Professor
C. E. Macleod, B.A. (McGill), Ph.D. (Washington), Professor
N. M. Mignan, B.A. (UCLA), M.A., Ph.D. (McGill), Professor
T. E. Perrot, B.A., M.A. (Louisiana), Ph.D. (Florida), Professor
M. C. Smith, B.A. (Toronto), Assistant Professor
P. K. Thomas, B.A. (McGill), M.A., Ph.D. (Toronto), Assistant Professor
S. Stoelzle, B.A. (New Brunswick), M.A., Ph.D. (Witwatersrand), Assistant Professor
J. R. Mendelson, B.Sc. (Toronto), Ph.D. (Dalhousie), Assistant Professor
D. A. Borese, B.A. (Florida), M.A. (Regina), Photographe (Toronto) Senior Tutor

Associate Chair: T.B.A.

Psychology is that branch of science which seeks to understand behaviour and why. How organisms - human and infranum - act as they do is one of the most compelling and longstanding questions in the history of human thought. Psychologists, artists, novelists, theologians and others have sought the answer through a variety of means. Psychology uses the methods of scientific enquiry to address the questions.

The areas of interest encompassed by the discipline of psychology include: how organisms perceive their environment; how they learn, adapt, and remember; how they change over their lifetimes; how they choose among alternative courses of action; how they respond to motivating forces; how they are affected by the presence of other organisms in social settings; how their behavior 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 Specialized Program in Psychology includes courses from each of the main sub-fields within the discipline. This Program is intended both for students with a strong interest in the field and for those who wish to pursue graduate work in psychology after the first degree. Students considering graduate study should plan to include the thesis course (PST8015) in their undergraduate program.

The Major Programme in Psychology is designed to introduce students who are interested in a less intensive exposure to the field. Often, students decide 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 Program in Neuroscience described earlier in this Calendar. Those particularly interested in the study of language, communication and thought - and wish to study the Major and Specialist Programmes in Cognitive Science described earlier.

Planning your Programme in Psychology: Students should be aware that the A, B, C, D course structure in Psychology dictates the sequence in which courses should be taken, but not the year of study in which a given course must be taken. That is, A, B, C, and D do not correspond to first, second, third and fourth year. For example, it is recommended that PST8801 and PST8802 be taken consecutively in the two terms of second year.

Students should be aware that with the exception of PST8100 and 8001, all other courses in the Faculty of Arts and Science correspond to B, C, and D levels: all 400-series are considered D-level. Students are encouraged to plan carefully so that they will meet their educational objectives over the years of their degree. Discussions with the Supervisor of Studies can be very valuable in this regard.

Courses in Neuroscience:

To facilitate the organization of the calendar, all Neuroscience courses that formerly had PSY designations have now been given NRO designations. Consequently, these courses appear only in the Neuroscience listings.

Students interested in including Neuroscience courses in their Psychology program should consult the Neuroscience section for details. Former PSY course numbers are indicated there as well.

First-Year Students in Psychology: PSY401Y is recommended in first year if intending to pursue a Specialist or Major Programme in Psychology.

SPECIALISATION PROGRAMME IN PSYCHOLOGY

Specialization: M.C. Smith (Office 5331)

The programme requires completion of 12.5 full-course equivalents, and fulfills the Programme requirements for the 4-year B.Sc. degree in Psychology.

1. A 5 full-course equivalents in Psychobiology (1 full-course equivalent)

2. A 5 full-course equivalents (1 full-course equivalent)

(a) PST8101 Data Analysis in Psychology

(b) PST8011 Advanced Data Analysis in Psychology

3. Laboratory Methods (5 full-course equivalents)

(a) PST8001 Psychological Research

(b) PST8011 Psychological Research Laboratory

and

(b) one half-course 5 full-course equivalent) from among the following:

PSY611H Social Psychology Laboratory

PSY621H Developmental Psychology Laboratory

PSY624H Psychometric Methods Laboratory
Major Programme in Psychology

Lecturer: M.C. Smith (Office S51)

The programme requires completion of 6.0 full-course equivalents in Psychology and normally results in a 2.5 year B.A. in Psychology.

1. PSY401 Introduction to Psychology (1 full-course equivalent)
2. PSY901 Psychological Research Methods (1 full-course equivalent)
3. PSY902 Statistics in Psychology (1 full-course equivalent)
4. Students must select one 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-, and 30-series);
   (b) Learning and Psychological Processes courses (listed in the 40- and 60-series);
   (c) Perception, Language, and Cognition courses (listed in the 50-series).

Minor Programme in Psychology

Lecturer: G. Rodman

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. PSY401 Introduction to Psychology (1 full-course equivalent)
2. PSY901 Psychological Research Methods (1 full-course equivalent)
3. PSY902 Statistics in Psychology (1 full-course equivalent)
4. Students must select one 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-, and 30-series);
   (b) Learning and Psychological Processes courses (listed in the 40- and 60-series);
   (c) Perception, Language, and Cognition courses (listed in the 50-series).

Psychology Programmes

(a) Learning and Psychology courses (listed in the 40- and 60-series);
(b) Perception, Language, and Cognition courses (listed in the 50-series).

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 choice is unstructured.

Other Disciplines (2 full-course equivalents) Students must select at least two full-course equivalents at the B-level or higher in a discipline or disciplines other than Psychology.

Note: Students who have taken PSY902 may receive 0.5 course credit toward satisfaction of Requirement 69 at 71.

Community Laboratory

Scientific Communication in Psychology (1.5 full-course equivalents)

(a) PSY102H Introduction to Psychology (1 full-course equivalent)
(b) PSY901 Psychological Research Methods (1 full-course equivalent)
(c) PSY902 Statistics in Psychology (1 full-course equivalent)
(d) Students must select one full-course equivalent from each of the three content groups listed below:
   (i) Social, Developmental and Personality courses (listed in the 10-, 20-, and 30-series);
   (ii) Learning and Psychological Processes courses (listed in the 40- and 60-series);
   (iii) Perception, Language, and Cognition courses (listed in the 50-series).

Psychology Survey (total study in psychology)

A study of the basic principles and methods of contemporary psychology.

Using these elementary principles and methods, the student will seek to understand: not only how organisms, both human and infrahuman, perceive their environments, how their behaviour is modified by experience, and how their activities are integrated, sustained, and directed.

The physiological basis of behaviour, particularly the functioning of the nervous system, learning and the importance of past experience in behaviour; perceiving, remembering, thinking, and reasoning; intelligence; language; motivation and emotion; social behaviour; personality; and abnormalities of behaviour and experience.

Exclusions: PSY100, PSY200

The Faculty

Psychology Research Laboratory

The nature of hypothesis testing through the design of experiments provides the nucleus of the course. Issues include planning and conducting research: generating research problems, experimental control, statistical analysis and evaluation of results, theory construction, and preparation of the research report. Ethical issues in research will also be considered.

Research methods will be illustrated in lectures and illustrated in laboratory exercises. This course is required for both the Major and the Specialized Programmes, and provides the basic skills necessary to take the other laboratory courses in psychology.

Pre-requisites: PSY101

Beaver.

Psychology Data Analysis in Psychology

This course focuses on the theory and application of statistical procedures in experimental contexts. Examples are related to psychology and considerable time is spent linking experimental designs to appropriate statistical analyses. The analyses described include data reduction techniques (e.g., distributions, measures of variability and central tendency, correlations, etc.) and an introduction to some hypothesis testing techniques (e.g., tests based on binomial, chi-square, t, and F distributions). A working knowledge of elementary algebra is assumed.

Four hours of lecture and one hour of tutorial per week.

Exclusions: ANT335, BIOL285, ECN101, SOC269, MGMT100, ORG101, STA202, STA204, SOC206, PSY202

Note: Of the above list of exclusions, only STA204 or PSY202 may be used to substitute for PSY201 or PSY200 as a pre-requisite for PSY203 and for purposes of meeting Specialized Programme requirements in Psychology. STA202 may not be used to meet Major or Minor Programme requirements in Psychology.

J. Faure

Psychology Survey (total study in psychology)

Surveys social influence (conformity and obedience), prejudice, action, attitude change, group behaviour (crowding, group behaviour, group norms), aggregation, cooperation and competition, nonverbal communication, person perception, attraction and mood.

Social Psychology focuses on the problem of how an individual's feelings, thoughts, and behaviour are influenced by the presence of others. The course is designed to demonstrate phenomena of social behaviour and to present theories and research evidence relating to these phenomena.

Exclusion: PSY200

Pre-requisites: PSY201

J. Finlayson

Psychology Survey (total study in psychology)

Introduction to Developmental Psychology

Developmental processes during infancy and childhood.

This course presents students with a broad and integrative overview of child development. Major theories and research findings will be discussed in order to understand how the child changes physically, socially, emotionally, and cognitively with age. Topics are organized chronologically beginning with prenatal development and continuing through selected issues in middle and late childhood.

Three lecture hours per week.

Exclusion: PSY201

Pre-requisites: PSY201

M. Finlayson

Psychology Survey (total study in psychology)

Personality

An introduction to some of the influential theories of personality and the research which they have guided. Specific theories covered vary from year to year. A typical selection might include behavioural psychology, ego psychology, interpersonal and social psychology, and psychoanalysis.
The aim of this course is to acquaint the student with the diversity of theoretical assumptions and research methods with which basic questions about human nature have been approached. Readings are from primary sources.

Exclusion: PSY230
Prerequisite: PSY100

A. Kvale

PSY232H Abnormal Psychology
Definition and identification of abnormality, historical-cultural influences on attitudes, theories, and research; a variety of past and current viewpoints in the development of hypotheses, model, and theory, including genetic, physiological, arothic, medical-psychiatric, psychoanalytic, social-learning, and sociological classification systems; including problems in their reliability and validity; description of a variety of emotions, psychoses, and other behavioral disorders of adults and children, including cognitive, emotional, sensory-perceptual, psychotic, and motor aspects, approaches, method of investigation, and findings in psychological, psychopathological, genetic, and epidemiological management, control, and modification of abnormal behavior within and outside institutions, including pharmacological, psychotherapeutic, learning-based, and social engineering approaches. The conceptual problems of defining abnormality and categorizing it will be emphasized.

Exclusion: PSY240
Prerequisite: PSY100

1.R.A.

PSY241H5 Behaviour Modification: origins and Applications
A survey of attempts to understand and regulate abnormal behavior. Philosophical underpinnings: basic concepts and models of behavioral change; research strategies, operand procedures, behavioral contracting, biofeedback, punishment, attribution, placebo effects, comparison therapy, rational-emotive therapy, thought stopping, modeling, fear extinction, associative stimuli; treatment of depression and artificial systems, between- and within-subjects; treatment of anxiety; assertive counter-conditioning; treatment of alcohol and drug abuse.

Exclusion: PSY361
Prerequisite: PSY100

F. Kalmer

PSY243H Sensation and Perception
The process underlying human experience. Stimuli for the human senses, especially light and sound, reception and sensory pathways with emphasis on vision and audition; 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: PSY230
Prerequisite: PSY100

J. C. Petyl

PSY245H5 Perception and Cognition
Theory and empirical research on perception and cognition, including problems of reasoning, symbols and visual and tactile perception, representation, and communication.

Topics include the constructionist and ecological approaches to cognition and perception in the handgriped and normal perceiver; perceptual information and projection, illusion, perspective, shadow patterns and flow fields during vision, possible and impossible objects, human and computer scene analysis, ambiguity in perception, perception of objects and images, outline representation. The empirical research is on adults and children, and different species. Determinants and exercises form part of the course.

Prerequisite: PSY100

J. Kennedy

PSY247H5 Memory and Cognition
Discussion of experiments and theories in human memory and cognition. This course provides an analysis of the research on encoding, storage, and retrieval of information in human memory. Also surveyed are the related topics of attention, thinking, and problem solving, and their role in a general model of information processing.

Three lectures per week.

Exclusion: PSY247

Prerequisite: PSY100

C. M. MacLeod

PSY2803 Human Brain and Behaviour: An examination of the neurological basis of human behaviour: an introduction to human neurology. The course will focus on the following: higher brain function in humans; hemispheric specialization, neuropsychology of speech, disconnection of the central nervous system (multiple sclerosis, epilepsy, damage in the frontal, parietal, occipital and temporal lobes, Alzheimer's disease, lesions, and speech disorders), psychopharmacology and the biological basis of psychiatric disorders. Two hours of lecture per week.

Prerequisite: PSY100

T. Petri

PSY281H5 Scientific Communication in Psychology
The development and enhancement of practical and professional skills based on current standard discourse in psychological science. The primary focus is on improving the student's ability to think, organize information, and communicate clearly, critically and effectively within the discipline and understand the differences between scientific and non-scientific approaches to the study of behaviour. Related skills, such as strategies for literature search, will be incorporated.

This course is limited to students enrolled in the Psychology Specialist Programme, and is recommended to be taken in the student's third year.

Prerequisite: PSY100H & PSY100H

Choose: PSY100H & PSY100H

J.C. Petyl

PSY290H5 Advanced Data Analysis in Psychology
This course is a continuation of PSY207 and focuses primarily on issues related to the analysis of variance (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-subject and some between-subject. The related issues will include a priori and 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 laboratory work per week.

Exclusion: STAC32, PSY203

Prerequisite: PSY100H and one additional B-level half-course in Psychology

J. D. Arnow

PSY291H5 Social Psychology Laboratory
Introduces conceptual and practical issues concerning research in social psychology, and provides experience with several different types of research.

The course is designed to consider in depth various research approaches used in social psychology such as attitude questionnaires, observational methods for studying ongoing social interaction. Discussion and laboratory work.

Limited enrolment: 25

Exclusion: PSY329

Prerequisite: PSY100H & PSY100H & PSY203

J. Russell

PSY292H5 Advanced Social Psychology: A detailed examination of selected social psychological topics introduced in PSY329. This course examines the nature of attitudes, their development, organization and change. Practical issues such as the measurement of attitudes in the laboratory and in public opinion surveys will be covered. Teaching method: lectures.

Exclusion: PSY292

Prerequisite: PSY100H & PSY100H plus one additional B-level half-course in PSY

J. Russell

PSY293H5 The Psychology of Emotion
Emotion is central to everyday life and is related to art, literature, and advertising. Nineteenth Century ideas about emotion (peripheral and central theories) are discussed in terms of the contemporary view of psychophysiology, functionalism, behaviorism, social constructionism, and phenomenology. A content is devoted to category theories that focus on primary emotions, such as happiness and sadness, and dimensional theories that emphasize lexical states, including pleasure and arousal. The process of creating distinctive emotion words and new words is explored along with gender differences in emotional style.

Exclusion: PSY394

Prerequisite: PSY100H & PSY100H (or permission of the instructor)

E.C. Capkovic

PUC245H5 Developmental Psychobiology
Descriptions of children's pronunciation, vocabulary and grammar at various stages of learning their first language. Theories of the linguistic knowledge and cognitive processes that underlie the development and use of language learning.

Exclusion: JUP125

Prerequisite: One F.C.E. in LIN and one F.C.E. in PSY

J. P. S. Millar

PSY296H5 Developmental Psychology Laboratory
This course introduces conceptual and practical issues concerning research in developmental psychology. Developmental psychology focuses on the process of change within and across different phases of the lifespan. Reflecting the broad range of topics in this field, research methods and techniques are considered. This course will cover a representative sample of some of these approaches.

Limited enrolment: 24

Exclusion: PSY319

Prerequisite: PSY100H & PSY100H & PSY203

E. C. Don
PSYC4200 Learning Laboratory
Critical review of basic doctrines and issues in the psychology of learning, with selected laboratory exercises in animal learning. An introduction to problems and techniques in the study of the acquisition of behavior. Topics include: reinforcement, motivation, classical and instrumental conditioning, principles, theory construction.

The course provides theoretical and empirical experience relevant to basic concepts and common problems in learning and motivation.

Exclusions: PSY260, PSY350, PSY354

Prerequisites: PSYB07B & PSYB07H (or equivalent)

G. Bondyman

PSYC595H Psychology and the Law
The course will focus on the application of psychology to the law, particularly the perception and memory processes which influence the giving of testimony.

Exclusion: PSYD30H

Prerequisite: A B30-series half-course in PSY M. C. Smith

PLUG695H Psycholinguistics
Experimental evidence for theories of how human produce and understand language, and of 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, production and comprehension of longer stretches of discourse, and the role of motor systems in language processing.

Exclusions: (PLBB55), (PLP57H)

Prerequisite: One full-course equivalent in LIN and one full-course equivalent in E. E. Sideman

Offered every fall

PSYC595H Experimental Psychology Microprocessor
This laboratory course emphasizes the use of microcomputers in preparing, controlling, and analyzing experiments. Students will learn a simple programming language and will have considerable "hands-on" experience with laboratory microcomputers. The aim is to develop the skills necessary to program experiments in psychology, in particular emphasis on research in cognition.

The teaching method will consist of lectures on the programming language. No previous computer experience is expected or required.

Exclusion: (PSY596), and any course in CSCE101

Prerequisites: PSYB07H & PSYB07H (or equivalent)

PSYC595H Theoretical Psychology
An introduction to the problems and methods of theoretical analysis in psychology.

The emphasis of the course is on developing sophistication in the techniques of theoretical analysis. The aim is to enable the student to read and evaluate the current literature in theoretical psychology.

Exclusion: PSY340

Prerequisite: PSYB07H or permission of the instructor

A. Kula

PSYC595H History of Psychology
A survey of developments in Western philosophy and science which influenced the emergence of modern psychology in the second half of the Nineteenth Century.

The developments in these basic problems are considered: mind-body, epistemology (science of knowledge), and behavior/motivation/ethics. We begin with the ancient Greek philosophers who emphasized the foundations of Western thought and science. The contributions of European philosophers and scientists from the Fifteenth through Nineteenth Centuries are then considered. Twentieth Century schools of thought are discussed including: psychodynamic, functionalist, humanistic, gestalt, behaviorism, and phenomenology.

Limited enrolment: 25

Exclusion: PSY300

Prerequisite: Two 300-level half-courses in Psychology and PSYB07H or permission of the instructor

G. Capelh

PSYC695H Supervised Study in Psychology
A reading or research project.

These courses offer an opportunity to investigate an area in depth after completing basic coverage in regularly scheduled courses.

They are designated as substitutes for advanced courses in fields where there are not available. The student must demonstrate that a background adequate for the project and should present a clear rationale to prospective supervisors. Project consultation with the supervisor is necessary and extensive library research and data collection will be required. Such a project will result in a written submission.

Students must obtain a permission form from the Divisional Office (341-A) that is to be completed and signed by the intended supervisor, and returned to the Divisional Office. At the conclusion of the project, the student will be provided with an outline of the schedule and general requirements for the course.

Students seeking supervision off campus are advised to verify first with the Supervisors of Studies that the proposed project supervisor currently holds a cross-appointment at the University of Toronto. Exclusions for PSYC590: NRO500, PSY303, PSY504

Exclusions for PSYC593: NRO500, PSY300, PSY250

Prerequisite: Three full-course equivalents in Psychology & permission of the instructor. Supervision by a Faculty Member

PSYC6182 Critical Analysis in Social Psychology
The development of social psychology as a discipline (its phenomena, theory, and methods) and as a profession is examined. The Natural Science and Human Science approaches to social phenomena are contrasted and an attempt is made to reconcile them. Students are taught to observe the real-world, choose a social phenomenon of interest to them, and then interview people who describe episodes from their lives in which these phenomena occurred. The students interpret these episodes and develop theories to account for their phenomena before searching for scholarly research on the topic.

Limited enrolment: 20

Exclusion: PSY682

Prerequisites: PSY121H or PSY122H or PSY230H plus one C-level half-course in PSY

G. Capelh

PSYC630H Psychology of Gender
This course focuses on theory and research pertaining to gender and gender roles. The social psychological and social-developmental research literature concerning gender differences will be critically examined. Other topics also will be considered, such as gender-role socialization. Teaching method: seminar.

Limited enrolment: 20

Exclusion: PSY322

Prerequisite: PSY210H plus two C-level half-courses in PSY

R.E. Goss

PSYC640H Current Topics in Developmental Psychology
An intensive examination of selected issues and research problems in developmental psychology.

The specific content will vary from year to year with the interests of both instructor and students. Lectures, discussions, and oral presentations by students.

Limited enrolment: 20

Exclusion: PSY410

Prerequisite: PSY211H or PLSC26H

OR PSY240H plus one C-level half-course in PSY

M. Schmidt

PSYC642H Socialization Processes
The processes by which an individual becomes a member of a particular social system (or systems). The course examines both the content of socialization (e.g., development of specific social behaviors) and the context in which it occurs (e.g., family, peer group, etc.). Material will be drawn from both social and developmental psychology.

Limited enrolment: 20

Exclusion: PSY311, PSY410

Prerequisites: PSYB10H & PSYB20H plus one C-level half-course in PSY

R.E. Goss

PSYC650H Current Topics in Abnormal Psychology
An intensive examination of selected issues and research problems in abnormal psychology. The specific content will vary from year to year.

Limited enrolment: 20

Exclusion: PSY440

Prerequisite: PSYB32H plus one C-level half-course in T.R.A

PSYC654H Human Intelligence
Part I of this course reviews the classical theories as well as present research strategies and findings in the field of human intelligence. Part II examines current work in the area. Part III critically considers the concept of testability, how it is estimated, and its application to the investigation of individual and group differences on IQ tests.

Limited enrolment: 20

Exclusion: PSY410

Prerequisites: PSYB07H & PSYB07H

PSY698H also recommended.

E. B. Tukey

PSYC670H Current Topics in Memory and Cognition
An intensive examination of selected topics. The specific content will vary from year to year.

Limited enrolment: 20

Exclusion: PSY470, (PSY471)

Prerequisites: PSYB57H plus one C-level half-course in PSY

M. C. Smith

PSYC692D Fundamental Issues in Cognitive Science
An examination of the conceptual and theoretical underpinnings at the foundation of cognitive science.

Topics include: the mind-body problem, functionalism, mental representations,
**Courses Not Offered in 1999/2000**

**Sociology**

**Professor Emeritus**

- R.L. James, M.A. (Wayne State) Ph.D. (Otago), Professor Emeritus
- H. Hansen, B.A., M.A. (Western Ontario), Ph.D. (Calgary), Professor
- K. O'Toole, B.A. (London), Ph.D. (Toronto), Associate Professor

**Associate Professor**

- F. Prentki, B.A. (Kyoto), Ph.D. (Tokyo), Associate Professor
- E. Servén, B.A. (Montevideo), Ph.D. (Montevideo), Associate Professor
- J. Turley, B.A. (Montreal), Ph.D. (Montreal), Associate Professor
- S. Ungar, B.A. (McGill), M.A., Ph.D. (York, Canada), Associate Professor

**Discipline Representative:** P.J. Huling

Sociology is the scientific study of interaction among people, the social relations which they establish, and the social groups which they form. Society attempts to exploit how society is organized, how it functions, and what accounts for social cohesion, social stratification, social mobility, and social change. It makes the consequences of cooperation, competition, and conflict.

**Planning A Programme in Sociology**

Students are advised to take the required courses to prepare for a career as a sociologist. For example, SOC 101, SOC 102, and SOC 201 should be taken in the second year, and SOC 202 should be taken during the third year. Failure to do so may lead to unsatisfactory conditions for the completion of the programme in the fourth year. Students are advised that they are not allowed to register in courses for which they have not completed the prerequisites indicated in the Calendar. The programme may also be entered for all the courses, provided that the prerequisites have been met.

**Sociology 158**

**Major Programme in Sociology**

Superintendent: R. O’Toole

- The programme requires completion of seven full-course equivalents in Sociology including:
  1. SOC 101 Introduction to Sociology
  2. SOC 102 Methods in Social Research
  3. SOC 201 Classic Sociological Theory
  4. SOC 202 Social Statistics
  5. Two full-course equivalents at B-level in Sociology

**Minor Programme in Sociology**

Superintendent: R. O’Toole

- The programme requires completion of four full-course equivalents in Sociology including:
  1. SOC 101 Introduction to Sociology
  2. Two full-course equivalents in Sociology, at least one of which must be at the B-level.

**Sociology 159**

**Specialist Programme in Sociology**

Superintendent: R. O’Toole

- The programme requires completion of ten full-course equivalents of which at least three must be at B-level in Sociology.
  1. SOC 101 Introduction to Sociology
  2. SOC 102 Methods in Social Research
  3. SOC 201 Classic Sociological Theory
  4. SOC 202 Social Statistics
  5. Two full-course equivalents at B-level in Sociology
  6. SOC 302 Contemporary Sociological Theory

**Notes**

- Five full-course equivalents at B-level in Sociology

**Topics**

- One full-course equivalent at D-level

**References**

- SOC 101: Introduction to Sociology
- SOC 102: Methods in Social Research
- SOC 201: Classic Sociological Theory
- SOC 202: Social Statistics
- SOC 302: Contemporary Sociological Theory
SOC020Y9 Structure of Interpersonal Relations
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 maintain individual desires and reduce conflicts to act morally. We will also examine the problem of the "outsider", 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 "interacting" our behavior, with examples drawn from research on social influence, social identity and stereotyping. Other topics include status and power relations in small groups, social influence processes, and the social psychology of class, sex and race relations. Enrolment: SOC325 Prerequisite: SOC010Y T.R.A.

SOC023Y3 Class Sociology: Theory
This course will locate the development of sociological theories within the general frame of the history of social thought. After a brief review of the antecedents of sociological thought in social philosophy from classical antiquity to the 18th century, the emergence of sociology is examined within the context of critical social and political changes. Special consideration is given to the works of Comte, Marx, Toennies, Durkheim, Weber, Simmel and Freud. The significance of their theories for contemporary developments in sociology is emphasized. Enrolment: SOC023 Prerequisite: SOC010Y M. Hammond/R. O'Toole

SOC026Y3 Urban Sociology
A review of theories of urban genesis and urban form; the interrelationship of urbanism, industrialization, and modernization, issues in urban living (housing, transportation, urban renewal, poverty, unemployment, etc.); urban social networks (racial and cultural heterogeneity, neighbourhood, community, and other voluntary associations). Enrolment: SOC025 Prerequisite: SOC010Y J. Hammond

SOC028Y3 Social Statistics
A consideration of elementary statistics including the summarizing of data, the logic of statistical decision-making and a number of common statistical tests. Statistics is a basic tool used by sociologists. An understanding of statistics is necessary for the student who wants to become an informed reader of social research. A working knowledge of elementary algebra is required. However, the learner will undertake brief reviews of mathematics as the need arises. This course is intended to supplement SOC100. Enrolments: AMT151, RCMB190, RCMB111, PSYB07, SOC201, SOC300, STATS12B Prerequisite: SOC010Y X. Dingang

SOC021Y3 Sociology of the Family
This course explores the family as a social institution, which shape and of the same time it is shaped by, the society in which it appears. 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 racism. 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. Enrolments: SOC024 Prerequisite: SOC010Y P.C. Busung

SOC025Y3 Sociology of Deviant Behaviour
An analysis of the social processes by which behaviour is defined and treated as criminal, immoral, disgusting, sick, or deviant; the establishment and administration of sanctions, treatment and other controls; deviant subcultures, and specific categories of deviant, such as criminals against person, "victimless crimes", mental illness, sexual deviation and alcoholism. Enrolments: SOC025 Prerequisite: SOC010Y M. Madani/R. O'Toole

SOC023Y3 Sociology of Work and Industry
An introductory examination of the nature of work and people's occupational roles and behaviour in modern industrial settings. Students will be exposed to some of the major concepts, theories and empirical research in the sociology of work and industry. Topics will include: an overview of the process of capitalist industrialization; changes in the occupational structure of the labour force; relativities to work; sources of job satisfaction and dissatisfaction, women and work, the impact of new technology: unions, employment, and unemployment, and professionalization. Enrolments: SOC207, SOC213, SOC207, SOC316, SOC213, SOC270 Prerequisite: SOC010Y J. Tanzer

SOC031Y3 Sociology of Mass Media and Communication
The mass media constitute major agents of socialization. This course will examine the structure, content and effects of mass communications in contemporary society. Topics to be covered include media monopoly and control, the growth of global multimedia empires, the relationship between the mass media, violence and pornography, media representations of inequality, deviance and crime and the media as sources of social and personal identity. Enrolments: SOC115, SOC314 Prerequisite: SOC010Y T.R.A.

SOC020G Small Groups
Analytical study of small group behavior, with special reference to the dynamics of structure formation, conflict patterns, maintenance patterns, and patterns of change. The first term will be conducted as an academic and analytical seminar; the second term as a seminar. The method in the first term will be participation in group task performance supplemented by regular reading and written reports; in the second term class reports, discussions and research reports. Limited enrollment: 12. Enrolment: SOC024 Prerequisite: SOC010Y, SOC080Y, SOC020Y & SOC020Y A. Sevren

SOC024H3 Social Movements
The development of an approach to social movements which includes the following: the origins of social movements, mobilization processes, the causes of the movement and its realization. The course readings will be clearly related to the lectures, and a major concern will be to link the theoretical discussion with the concrete readings of movements. Enrolments: SOC010Y, SOC010Y, SOC010Y R. O'Toole

SOC003Y5 Sociology of Labour
A consideration of basic questions as they arise in the work of contemporary theorists and theoretical schools of sociology. Students will be expected to develop an informed, critical perspective on current debates within the discipline. Enrolment: SOC113 Prerequisites: SOC010Y, SOC010Y, SOC010Y M. Hammond

SOC011S Sex, Birth and Society
A sociological examination of gender as a category of analysis, research and social experience. The single most important influence on our behavior is being male or female. Gender is built into the way our institutions are put together, the way we are socialized, and the way access to scarce resources is structured. This course will focus on the social construction of gender, gender ideology, the impact of gender on the individual and the social structure; and the maintenance of gender inequality in the labour force, in the family, in education and in social interaction. Enrolment: SOC025 Prerequisites: SOC010Y, SOC010Y, SOC010Y A. Serven

SOC011S Sociology of Law and Law Enforcement
An examination of existing legal systems, the process of creation of legislation, court interpretation of law, and the law enforcement institutions. Enrolments: SOC113, SOC026 Prerequisites: SOC010Y, SOC010Y, SOC010Y, SOC010Y J. Tanzer T.R.A.

SOC011S Sociology of Culture
An examination of the production and reception of culture in various societies. This course focuses attention on various historical and contemporary manifestations of folk, popular, mass and deviant cultures as well as on classical and contemporary art, music and literature. Enrolments: SOC025 Prerequisites: SOC010Y, SOC010Y, SOC010Y R. O'Toole
SOCI201G Social Change
An examination of the use of non-statistical methods for systematic analysis of social behavior. Each student will develop a research project in social change that is based on literature and applied social research.

Exclusions: SOC203, SOC210
Prerequisites: SOC101Y, SOC101Y, SOC201Y
P.S. Titus

SOCI254H Changing Family Life in Canada
Examination of the major changes in the structure of the family in Canada, and their consequences for family life. Each student will develop a research project on a family-related topic.

Exclusions: SOC101Y, SOC101Y, SOC201Y, SOC101Y
A. Sver

SOCI255H Comparative Ethnic and Race Relations
A comparative study of relations between diverse ethnic and racial groups in selected societies.

The purpose of the course is to develop a critical understanding of the process of intergroup relations. The course will compare the patterns of ethnic relations in North America with those in selected European countries, Africa, Asia and Latin America.

Exclusions: SOC203
Prerequisites: SOC401Y, SOC201Y, SOC201Y, SOC201Y
J. Hamagami

SOCI260H Sociology of Urban Growth
An in-depth examination of the conditions, patterns and consequences of urban growth and development. Major topics will include the emergence of new urban institutions (legal, political, economic) and the formation and operation of urban social networks.

Exclusions: SOC166
Prerequisites: SOC401Y, SOC201Y, SOC201Y, SOC201Y
J. Hamagami

SOCI263H Criminal Behaviour
An advanced study of the causes and consequences of criminal behavior, with special emphasis on crime patterns.

Exclusions: SOC266, W209/202
Prerequisites: SOC401Y, SOC201Y, SOC201Y, SOC201Y
J. Tannen TBA

SOCI301G Social Change
An examination of processes of change in social structures, social institutions and organizations as they are affected by the changing social conditions. Special attention is devoted to the nature, causes and consequences of sociocultural changes in the contemporary world.

Exclusions: SOC301, SOC301
Prerequisites: SOC101Y, SOC101Y, SOC201Y, SOC201Y
R. O'Toole

SOCI303H Environment and Society
This course links students in the classical study of sociological monographs and textbooks (as in the works of Harold Block, S.D. Clark, and the Chicago School) with modern topics in ecology and environmentalism. The course will include empirical research, and theoretical issues, in the relationship of various social systems to their natural environments.

Exclusions: SOC301
Prerequisites: SOC101Y, SOC101Y, SOC101Y
J. Hamagami

SOCI409H Supervised Independent Research
Student research by field methods, survey analysis or literary 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.

Exclusions: SOC401Y, SOC401Y, SOC401Y
Prerequisites: Completion of at least fifteen full-course equivalents including SOC401Y, SOC201Y, SOC201Y, SOC201Y and permission of the instructor.

P.S. Titus / A. Sver / R. O'Toole

SOCI423H Advanced Seminar in Sociological Theory
Special topics in contemporary sociological theory, designed as a final year course for students taking a Special Programme in Sociology.

Exclusions: SOC401Y, SOC401Y, SOC201Y, SOC201Y, SOC201Y, SOC201Y
Prerequisites: SOC401Y, SOC401Y, SOC201Y, SOC201Y, SOC201Y, SOC201Y
R. O'Toole

SOCI424H Advanced Seminar in Research Methods
Special topics in methodologies used in contemporary sociological research. Designed as a final year course for students taking a Special Programme in Sociology.

Exclusions: SOC401Y, SOC201Y, SOC201Y, SOC201Y, SOC201Y, SOC201Y
Prerequisites: SOC401Y, SOC201Y, SOC201Y, SOC201Y, SOC201Y, SOC201Y
R. O'Toole

Courses Not Offered in 1996/1997
SOC200Y Political Sociology
Prerequisites: SOC101Y
SOC215Y Social Class and Social Stratification
Exclusions: SOC201Y
Prerequisites: SOC101Y
SOC220R Ethnic and Race Relations
Sociology of Education
Exclusions: SOC201Y
SOC225Y SOCIOLOGY
SOC303H Sociology of Conflict and Cooperation
Prerequisites: SOC101Y, SOC101Y, SOC101Y
SOC312Y Sociology of Religion
Exclusions: SOC201Y, SOC201Y, SOC201Y, SOC201Y
Prerequisites: SOC101Y, SOC101Y, SOC101Y
SOC323H Sociology of Aging
Prerequisites: SOC101Y, SOC101Y, SOC101Y
SOC329H Social Theory
Prerequisites: SOC101Y, SOC101Y, SOC101Y
SOC335H Comparative Social Structure
Exclusions: SOC201Y
Prerequisites: SOC101Y, SOC101Y, SOC101Y
SOC344H Advanced Seminar in Urban
Sociology
Prerequisites: SOC101Y, SOC101Y, SOC101Y, SOC101Y, SOC101Y, SOC101Y
Prerequisites: SOC101Y, SOC101Y, SOC101Y, SOC101Y, SOC101Y, SOC101Y
R. O'Toole

Spanish (B.A.)

Faculty List
P.R. Leo, M.A., Ph.D. (Carleton), Professor Emeritus
R. Smythe, B.A., M.Lit. (Brant), M.A., Ph.D. (Michigan), Associate Professor

MAJOR PROGRAMME IN SPANISH LANGUAGE

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Statistics

Please refer to the Physical Sciences section of the calendar, page 210 for a list of programmes. Please refer to the Student Handbook for programmes and course outlines.

Visual and Performing Arts (B.A.)

Faculty List

G. Scarratt, M.A. Ph.D. (Toronto), Professor Emeritus
M. Coveny, M.A. (Perkins), Ph.D. (Toronto), Professor
M. S. Shaw, M.A., Ph.D. (Bryn Mawr), Professor
W. Stenwyk, M.A., Ph.D. (Toronto), Associate Professor
L. Carney, M.A. (Columbia), Associate Professor

Courses Not Offered in 1998/1999

SPAN01YS
Intermediate Spanish
Exclusions: OAC Spanish or Grade 11 Spanish, SPA/101, SPA/103

SPAN12H
History of the Spanish Language I
Exclusion: SPA/123

Spanish I
Exclusions: SPA/094

SPAN15H
The Civilization of Spain II
Exclusions: (HUMB91) (HUMS91)

SPAN20H
Business Spanish
Pre-requisite: SPA/151

SPAN23H
Modern Hispanic Short Fiction
Exclusions: SPA/444H

SPAN44H
Pre-requisite: SPA/103

J. Mayo, G.T.C.L. (Trinity College of Music, London), M.A., Ph.D. (Toronto), Associate Professor
A.J.C. Paterson, M.A. (McGill), Ph.D. (Birmingham), Associate Professor
M.G. Schlabach, M.A., Ph.D. (Toronto), Associate Professor
R. Siebiede, M.A., Ph.D. (Toronto), Associate Professor
K. Tholl, M.A., Ph.D. (U of T), Associate Professor
L. Vargas-Cervantes, M.A., Ph.D. (Buenos Aires), Associate Professor
C. Clark, M.A. (McGill), M.A., Ph.D. (Cornell), Assistant Professor
P. Sperandio, M.A., Ph.D. (Toronto), Assistant Professor
D. Hellen, B.F.A. (Kansas City Art Institute), Senior Tutor
J. Hoogstraten, B.F.A., M.A. (Montreal), Senior Tutor
S. Crawford, B.A. (Lakehead), Co-ordinator, Art Management and Administration
K. Wright, Technical Director and Lecturer
R. Rapoport, M.A., M.A. (Toronto), Lecturer
R. Simes, M.A. (York), Ph.D. (Toronto), Lecturer
I. Whiting, Dip.Opt.Perf. (Toronto), Instructor

Discipline Representative: W. Bowen (1997-1998)

Art History, arts management, drama, music, and studio disciplines constitute Visual and Performing Arts. Recognizing that much artistic work crosses the boundaries traditionally seen as separating one art form from another, Visual and Performing Arts invites exploration of the links and communications among the arts, in addition to providing opportunities for study in individual art areas.

Specialist Programmes

Art Management (Co-op)
Visual and Performing Arts

Major Programmes

Art History

Minor Programmes

Art History

Music History

Studio

Please note that certain courses are named: this indicates an emphasis on developing writing abilities (for students at all levels of ability), and an opportunity to supplement work done in VPA/007 or other forms of writing practice.

All students will benefit greatly by going to the College's many plays, concerts, exhibitions and other arts events, and should also consider participating actively in, for instance, the series of choir and band courses and the public productions at the Leghia Lee Brown Theatre. Please consult the College's Cultural Affairs office (287-7013) or the VPA Discipline Representative.

SPECIALIST PROGRAMME IN VISUAL AND PERFORMING ARTS (B.A.)


This programme provides training in the visual and performing arts in a university setting for those students who want a conceptual and technical understanding of the arts and the institutions among them, and for those who wish primarily to develop their practical abilities.

The programme is based for courses and further study for future practitioners in the arts, for gallery and museum professionals, for academics, and for those who want a thorough understanding 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 this core, options range from specialization in one area to work across all the arts. All students in the programme are expected to take advantage of the opportunities that exist in all campuses 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-four degree as follows:

At least three full-course equivalents from:

- VPA/350 Music History
- VPA/360 Studio
- VPA/370 Drama

There are no specified courses for the Specialist programme. Please consult the Specialist Programme in Visual and Performing Arts for further details.

5. Further VPA courses and other electives, two full-course equivalents of which must be at the C or D level, to bring the total taken within the programme to fourteen and a half full-course equivalents. These may include the courses listed for Major in the arts (art, 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 and/or professional practice 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 requirement 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, interviews with faculty and, for concentrators in studio, portfolio. The second requirement should be started in the second year and the third may be fulfilled at any point in the first three years. Students must maintain a cumulative grade point average of 2.50 to remain in the Programme.

VPA/350H Introduction to Art
VPA/360H Foundation Studies in Studio
VPA/370H Introduction to Music
VPA/390H Introduction to Drama
VPA/395H Studio
VPA/400H Drama
VPA/410H Music

Visual and Performing Arts 165

VPA/420H Critical Thinking and Writing in the Arts
VPA/430H Computers and the Arts
VPA/440H Research in the Arts
VPA/450H What is Culture?
VPA/460H Philosophy of Art
VPA/470H Philosophy and Culture
VPA/480H How Is it? Art?
VPA/490H Cultural Policy
VPA/510H Project in Visual and Performing Arts
separate arts and across conventional artistic boundaries.

Students will undertake frequent short writing assignments. These are designed to teach the skills of paraphrase and abstraction, and to give practice in a variety of written genres. Students will learn the particular problems of critical writing in the arts, how to give logical structure to their own writings, and how best to make it effective.

This course is restricted to students in Specialist and Major programs in VPA. Additional students may be admitted by the instructor on the first day of class.

J. Meyer
Offered: 2000/2001

VPA204H3 Computers and the Arts
An introduction to the use of computers in the visual and performing arts.

Students will learn broad applications of computer software in the fields of cinema, music and the visual arts. Demonstrations / tutorials will illustrate current standards and future possibilities in the computerized handling of graphics, sounds, and text. Projects will allow opportunities for practical experience under the supervision of members of the VPA faculty.

This course is restricted to students in Specialist and Major programs in VPA. Additional students may be admitted by the instructor on the first day of class.

T. Myers
Offered: 2000/2001

VPA205H4 Research in the Arts
An introduction to resources and methods for research in the visual and performing arts.

Students are introduced to reference works and other research tools as part of a discussion of methodologies for study in the visual and performing arts. The course emphasizes understanding different research methods, evaluating sources, and initiating research projects.

This course is restricted to students in Specialist and Major programs in VPA. Additional students may be admitted by the instructor on the first day of class.

W. Bowers
Offered: 2000/2001

VPA210H3 Current Issues in the Visual and Performing Arts
An exploration of selected topics pertaining to the visual and performing arts.

This course focuses on current issues of general interest to the arts community. In seminars, lectures, and workshops, students are encouraged to integrate ideas from their study and practical experience of the individual arts forms, and to develop an interdisciplinary perspective. This course builds on the foundation provided in VPA200H3 Critical Thinking and Writing in the Arts and VPA204H3 Research in the Arts.

Prerequisites: 5.5.C.E.'s from the Specialist program in VPA including VPA206H3 & VPA208H3
L. Caven
Offered: 2000/2001

VPA201H3 Seminar in Visual and Performing Arts
A seminar course on selected issues, theories and critical concepts in the arts, for all students in the final year of the Specialist Program in Visual and Performing Arts.

Topics vary. The Supervisor can advise students on the topic chosen for a given year. Prerequisite: 10.5.C.E.'s from the Specialist program in VPA
Offered: 2000/2001

VPA202H3 Project in Visual and Performing Arts
A collaborative project involving various arts and media, to be carried out by students in the final year of the Specialist Program 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: 10.5.C.E.'s from the Specialist Program in VPA.
M.G. Schuberg
Offered: 2000/2001

General Courses Not Offered in 1999/2000

VPA210H3 The Body: Representations and Performance

Prerequisites: 4.3.A.1Y (ARASS1Y) or 2.3.A.4Y (ARASS2Y) or 5.3.A.1Y (ARTMAT) or permission of the instructor

Prerequisites: 5.5.C.E.'s from the Specialist Program in VPA including VPA206H3 First Nations Cultures in North America

VPA210H3 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 the cities. Although some of the courses reflect a traditional

meaning of art history by time periods, others often use new methodologies to see 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.

ART HISTORY PROGRAMME IN ART HISTORY

Supervisor: R. Siebehoff (281-7189)

Students must complete seven full-course equivalents as follows:

One and one-half full-course equivalents 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. Students may substitute one full-course equivalent from VPA or another discipline (such as VPA201H3 or VPA202H3) for one of the Supervisor’s approval.

One and one-half full-course equivalents in art history at the C-level (or at the 300-400 level on the St. George campus).

ART HISTORY PROGRAMME IN ART HISTORY

Supervisor: R. Siebehoff (281-7189)

Students must complete seven full-course equivalents as follows:

One and one-half full-course equivalents from VPA244Y or VPA244Y, or VPA245Y (ARASS4) or WST401Y with permission of the instructor

Prerequisites: 5.5.C.E.’s from the Specialist Program in VPA including VPA206H3 First Nations Cultures in North America

VPA214H3 Introduction to Art

An introduction to the basic concepts and methods used in the study of art at the college level.

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: PA710H0 (PARA1Y)
L. Caven

VPA214H3 Material Art

A survey of European architecture, sculpture, painting, illumination, and mixed 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, Moorish and pagans forms, how they developed in an entirely new form of artistic expression in the High Middle Ages; and how they led 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: PA612H3 (PARA1Y)
T.R.A.

VPA214H5 Renaissance and Baroque Art

A survey of architecture, painting and sculpture from 1400 to 1750.

R. Siebehoff

VPA214Y3 The Human Figure in Greek Art

This course considers representation of men and women, shown singly and in interactive scenes in sculpture and vase painting, two of the richest media in Greek art.

Study of these often beautiful portrayals of people in action can reveal narratives of myth and legend, and reflections of everyday life in Greece. If we meet the challenge of deciphering their intriguing pictorial language, they also reveal social values such as the perception of gender, and can allow us to reconstruct various aspects of ancient society for which information may be missing in the literature.

Exclusions: PARB0Y Prerequisites or Corequisites: Any course in art history or VPA211H3
M. Shaw

VPA216H3 Caricullum and Romanesque

Art and Architecture

A survey of the art and architecture of Europe from 800 to 1150, considered in light of the varied artistic developments of the contemporaneous Mediterranean world. The course will consider the major artistic and architectural movements of Europe from the Carolingian renaissance to the renaissance of the twelfth century, they will be considered in their geographical context and in relation to the art and architecture of the late Roman Empire, Byzantium and Arabia, Islam, and...
to the art of the invention period. The
importance of monasticism and pilgrimage
will also be discussed. Texts: R. Kluge,
Early Medieval Art; C. Zarncke,
Renaissance Art; K.J. Conant, Carolingian
and Romanesque Architecture.
Exclusion: PAR301, PAR303, (PAR310H)
Prerequisite: VPA340H highly recommended.
M. Gevers
VPA403H  Impressionism
A study of Impressionism as a turning point in
Western art.
The rapidly expanding city of Paris, with
its great boulevards and avenues, was a major
meeting place of the world in the second half
of the nineteenth century. Using the economic
and artistic resources of this international
center, the Impressionists, however, turned
primarily to landscape as a source of
inspiration. The members of the group, in
particular Manet, Pissaro, Morisot, Renoir and
Monet, will be discussed in detail. Text: Robert
L. Herbert, Impressionism: Art, Leisure and
Parisian Society, Yale, 1988 (soft cover).
Exclusion: PAR307H, (PAR434H)
R. Siebelaff
VPA407H  Art in North American Cultures
Using and characteristics of art within the
territorially varied contexts of first nations,
colonial and post-colonial cultures in
North America.
This investigation explores selected
cultural "moments" from the last three
ten centuries. Recommended: Courses in Canadian,
Mexican and/or U.S. history useful but not
required.
L. Allen
VPA407H  The Art of Southeast Asia
Art of the Southeast Asian peninsula
including Cambodia and Thailand as well as
Java and Bali in Indonesia.
The course will concentrate on two of
the most important groups of monuments in
Southeast Asia, namely the Buddhist
Temples on Central Java (550 to 1000 AD) and
the group of Khmer monuments at Angkor in
Cambodia (9th to 13th century). The influence
of Buddhism will be a major reference point in
the discussion of the works. Textbook: Philip
Rawson, The Art of Southeast Asia, 2nd edition,
Thames and Hudson. Reprint 1990 soft cover.
Exclusion: FAB689H, FAB689Y
R. Siebelaff
VPA401H  Art Around 1900
An investigation of cultural exchanges at the
turn of the century among such cities as New
York, Barcelona, St. Petersburg, Vienna and
Paris.
The course focuses on the innovations of
leading "modernist" artists as well as on the design
of furniture, books, art glass, jewellery and
fashions, and other luxury products of the period.
Exclusion: FAB141H
Prerequisite: One full-course equivalent
at the B-level or permission of the
instructor.
R. Siebelaff
VPA405H  Secundus in Twentieth-Century
Art
Special topics in twentieth-century painting
and sculpture. The subject will change from
time to time. After introductory sessions
outlining the subject and ways of gaining
information about it, seminar members will
research and present topics of their choice.
Exclusion: FAB181H
Prerequisite: One full-course equivalent
in modern art history at the B-level or
permission of the instructor.
L. Corney
VPA4015H  Supervised Reading in Art History
A course offering the opportunity for advanced
investigation of an area of interest to students
who are nearing completion of art history
programs and who have already acquired
research skills sufficient for independent work.
Students must locate a willing supervisor, and
topics must be identified and approved, by the
end of the previous term. A reading knowledge
of a second language is recommended.
Exclusion: FAB202H, FAB203H, (FAB207Y)
Prerequisite: One C-level full-course
equivalent in art history.
Students are advised that they must
obtain consent from the supervising
instructor before registering for these courses.
Members of Faculty
Art History Courses Not Offered in 1999/2000
VPA403H Ancient Art and Architecture
(500 B.C. - 300 A.D.)
Exclusion: FAB100, (FAB101H)
VPA401H Art in the Age of the French
Revolution
Exclusion: FAB212, (FAB375H)
VPA407H Women in Visual Art
Exclusion: FAB216Y
Prerequisites: WST410Y or
(FAB110H) or VPA403H or
(FAB141H) or permission of
the instructor
VPA415H Wall Painting in Ancient
Egypt and the Bronze Age
Anglo-American (1350-1200 B.C.)
Exclusion: FAB205H, (FAB269H)
Prerequisite: One full-course
equivalent in art history at the
B-level or permission of the
instructor
VPA402H Gothic Architecture
Exclusion: FAB306, (FAB306H)
Prerequisite: One full-course
equivalent in Art History at the
B-level or permission of the
instructor
VPA413H Renaissance Art
Exclusion: FAB303H, (FAB304Y)
Prerequisite: One full-course
equivalent in Art History at the
B-level or permission of the
instructor
VPA415H Baroque Painting in the
Netherlands
Exclusion: FAB229, (FAB329H)
VPA405H Rococo in the Age of the
Enlightenment
Exclusion: FAB230, (FAB329H)
Prerequisite: One full-course
equivalent in Art History at the
B-level or permission of the
instructor
VPA407H The Arts in Northern Europe
ca. 1400-1500
Exclusion: FAB107Y, (FAB108H)
Prerequisite: Advanced Placement
in Art History
Admission to the Programme
Applicants may apply to the programme
directly from secondary school or may apply to
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 their Saarbruecken
programme on the Application Form For Admission
To An Ontario University. Once the University of
Toronto is notified of the application, conditions
are set as an additional group application form to
completing. To be considered for the final round of
admission, applicants must return the co-op application
form in the following deadlines. Current OAC
applications at March 1. Applicants who
applied on the 10th form - April 1. Therefore
it is essential that the applicants submit the initial OAC application at least six weeks
prior to those dates.
Enrolment in the programme is limited.
Interviews are normally held from March
until 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. Facility in another language and
OAC accounting are highly desirable.
Fee
All students in a co-operative programme are
required to pay additional fees as established
by the University.
This programme requires two years full-course
equivalents (four years of study over two
work terms of twelve in ten weeks each. Students complete 9 full-course
equivalents (4) in the management field,
full-course equivalents in (8) the artistic field
and 3 additional full-course equivalents from
(12) the 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:
VPA415H Introduction to Arts Management
VPA313H Introduction to the Arts in a
Pluralist Society
VPA121Y Cultural Policy
VPA197Y Introduction to Economics
VPA336Y Public Decision Making
VPA305Y Introduction to Management
VPA306Y Financial Accounting
Students can choose one of the following options:

1. Courses chosen from a number of different subject areas with the aim of providing breadth in the student's programme.
2. A coherent selection of courses in one subject area.
3. Further concentration in the chosen artistic field (B), or in the management field (A). This option is particularly valuable for students wishing to complete the specialist requirements in their artistic field, or for students concentrating on graduate study in the arts or in Business Administration. Students considering careers in a museum or graduate work in Museum Studies should use this option to take an approved programme of courses in archaeology and related disciplines.

Students selecting either 2. or 3. will need to consult also with the programme supervisor in the chosen subject. The programme supervisor of Arts Management can supply details of suggested elective packages.

CONSULTATION WITH THE SUPERVISOR OF STUDIES IS ESSENTIAL FOR ALL STUDENTS IN EACH YEAR OF THEIR PROGRAMME. IN ADDITION ALL PROGRAMME AND COURSE CHANGES MUST BE APPROVED BY THE SUPERVISOR OF STUDIES.

**Work terms**

Work terms may begin in September, January or May and students are normally eligible for a work placement after their second year of study. The place of work will vary widely according to availability and to a student's needs and abilities. Although the work placements are arranged by the co-ordinator of the Arts Management Programme, they must be approved by the supervisor in consultation with all applicable for the position.

Performance on work terms will be evaluated by both employer and co-ordinator. Students must submit a report of each work term a report which integrates knowledge gained during the placement with relevant academic study already completed (see VPA621G and VPA621L).

Eligibility for work placements

To compete for work placement a student must have completed a good standing in the Programme and must have completed at least ten full-course equivalents including:
- two full-course equivalents from the artistic field
- VPA610Y Introduction to Arts Management
- VPA611H Workshops in Arts Management
- MTRA20Y 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. VPA610Y 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 2.50
- receive a satisfactory evaluation for work term performance and work term reports
- complete a full course of study at least two full-course equivalents and normally two and one-half during each study term
- participate in special events and seminars arranged by the co-ordinator.

Courses in the first two years of the programme

The first year of study should consist of VPA610Y, one full-course equivalent from the artistic field, MTRA20Y, and further courses in the artistic or management field.

The second year of study should consist of five full-course equivalents to include VPA611H, VPA612H, MTRA20Y and a balanced mixture of management and artistic courses. Students are encouraged to consider the courses listed under Elective Field of Study.

VPA610Y Introduction to Arts Management

An introduction to the theory and practice of arts management, in Canada. The course will examine the context of the arts in society and in Canada and in particular the economic elements of the cultural ecology in Canada, including arts organizations and governance agencies; the history and current status of arts management as a professional discipline; current issues and challenges facing the arts; and specific management skills and knowledge required for today's arts manager including human resource management, marketing, fundraising and financial management.
Drama

The drama courses have been devised to serve students who intend to major in Drama, students who tend to specialize in Visual and Performing Arts, and students who have a casual interest in drama and theatre.

We offer two types of courses which complement each other: theoretical and practical. The theoretical courses are in the history of theatre and in special aspects of theatre history and theory. In the practical courses, students become acquainted with all aspects of theatre production in studio situations, both as actors and technicians. Participation in public productions of the College is strongly encouraged.

MAJOR PROGRAMME IN DRAMA

1. VPAAS1H An Introduction to the Practical Elements of Theatre
2. VPAAS1Y Intermediate Workshop in Theatre Performance
3. VPAAS0H The History of Theatre I: From Classical Antiquity to the Elizabethan and Jacobean Theatre
4. VPAAS1H The History of Theatre II: From the Restoration Theatre to the Theatre of the First Part of the 19th Century
5. VPAAS4H Theatre in Canada
6. VPAAS5H Introduction to Asian Theatrical Traditions
7. ENBY11Y The World of the Play
8. Two full-course equivalents in courses, one of which must be at the C- or D-level. These courses may substitute VPAAS2H and VPAAS4H, or other courses outside of Drama, but must first obtain written permission from the Supervisor of Studies.

MINOR PROGRAMME IN DRAMA

1. VPAAS1Y An Introduction to the Practical Elements of Theatre
2. At least two of VPAAS2H, VPAAS3H, VPAAS4H
3. One full-course equivalent from the C- or D-level. Students wishing to take VPAAS1H must first take VPAAS1Y.
Reading materials will be drawn from several sources and selected dramatic texts will be used to illustrate theatrical developments. Exclusions: (AEDR306, DRA830E, DRA8345), DRA3258.

P. Spesard
Not offered: 2000/2001

VPA28373 The Art and Nature of Comedy A study of the comic form in the theatre and film.

The student will view plays by the masters of comic drama and view films that are classics in the history of comic cinema. Representative theatrical works will be studied with reference to the political and social aspects of comedy.

The types of comedy explored will cover a wide range of works from farce to burlesque to comedy of ideas, political and literary satire, and the comedy of the absurd.

The course will be taught in lectures and seminars.

Exclusions: (DRA307Y), M.G. Schonberg
Not offered: 2000/2001

VPA32173 Intermediate Workshop in Theatre Performance

This course is designed to enable advanced students to concentrate on problems related to the staging of plays in studio situations. A portion of the course is devoted to work with TV/camera equipment. A minimum of three hours weekly in formal groups, and additional time in rehearsal, will be devoted to advanced exercises in acting skills, some work, and work on productions.

Exclusions: (DRA3200), (DRA138E, DRA1400, DRA1400)

P. Spesard: (DRA801Y), VPA32173, M.G. Schonberg
Offered: 2000/2001

VPA32373 Technical Production

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 positions available in college productions.

Exclusions: (DRA208Y), DRA2524Y

P. Spesard: VPA32373 (VPA2930Y, DRA1201Y)
K. Schonberg
Offered: 2000/2001

VPA32903 Experiencing the Live Theatre II Discovering the relationship of play and playwrights.

Students will attend five or six productions, write reviews and consider the various physical spaces in which drama may be performed. Exclusions: VPA397F or permission of the instructor

M.G. Schonberg

VPA33113 Advanced Workshop: Performance and Directing

Detailed analysis and critique of each student's directing techniques. Detailed study of a play in which the student will participate in the writing of the script for the stage and in the studio presentation.

Exclusions: four (DRA120Y, DRA121Y)

P. Spesard: VPA33113, DRA121Y

Offered: 2000/2001

VPA33511 Supervised Reading Courses

Students wishing to take any of these courses should consult with the Program Supervisor, M.G. Schonberg, who will advise the student on the reading list and the specific requirements for the course.

The emphasis in this course will be on both advanced individual projects exploring specific areas of the history of the theatre and/or dramatic literature. Permission by students for specific projects will be assessed by the supervisor of Studies in consultation with other members of faculty.

Exclusions: (DRA2074Y, DRA2075Y, DRA2076Y)

Offered: 2000/2001

Music

The Music curriculum is designed both for students who have studied music 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 studies 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 VPA4440. 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 (287-7194) Students are required to complete a total of seven full-course equivalents in Music made up as follows:

1. VPA404H Introduction to Music VPA393H Materials of Music I
2. VPA423H Listening to Music VPA394H Materials of Music II
3. VPA499H Introduction to Western Music The Victorian Theatre
4. One full-course equivalent from the C- or D-level

Minor Programme in Music History

Supervisor: W. Bowen (287-7194) Students are required to complete a total of four full-course equivalents in Music. The four courses may be made up as follows:

1. VPA404H Introduction to Music VPA393H Materials of Music I
2. VPA423H Listening to Music VPA394H Materials of Music II
3. One full-course equivalent from VPA499H or VPA499H
4. One full-course equivalent from the C- or D-level

VPA404H Introduction to Music A study of the basic materials, principles of style, and historical significance of Western Music from the Middle Ages to the present day. Through a series of representative study, students are introduced to the following ideas: musical style and design; the ways in which culture and society influence what composers write; the role of the listener in re-creating 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 VPA040H1, Listening to Music, and VPA045H1, Elementary Music Theory, and forms a natural sequel to them.

Prerequisite: VPA030H1 and VPA045H1 or their equivalents
J. Mayo
Offered: 2000/2001

VPA045H1 Elementary Music Theory
An introduction to the elements of music (reading, writing, listening).

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, complete deficits will be available for those who require extra study. Examination: VPA040H1
J. Mayo
Offered: 2000/2001

VPA045H3 Music in the Middle Ages
A study of music in the period between the birth of Christ and the early 13th century. This course is a survey of the major forms of music, both sacred and secular, found in Europe during the Middle Ages. The history of church in the Roman Church, the secular song of the troubadours and trobairitz, and the role of polyphony are included. In addition, the aesthetic, philosophical, and sociological content for medieval music will be considered.
Examination: (MUS080)
Prerequisite: VPA045H1. It is recommended that students have no background in elementary harmony take VPA040H1 as a co- or prerequisite.
W. Bowes
Offered: 2000/2001

VPA045H4 Music of the Classic Period
A study of music from the late eighteenth and early nineteenth centuries with emphasis on the works of Haydn, Mozart and Beethoven. An examination of the origins of the Viennese classical style will be followed by a study of representative works by the three major composers of the classic period. The works will be studied in the context of the political, social and artistic changes which took place in Europe at this time.
Examination: (MUS060)
Prerequisite: VPA045H1 (MUS010). It is recommended that students with no background in elementary harmony take VPA040H1 as a co- or prerequisite.
A. Rapoport
Offered: 2000/2001

VPA045H5 Music of the Twentieth Century
Tracing the various trends in music of the past century from Debussy to the most recent works and multi-media presentations. Selected compositions of Debussy, Schoenberg, and Stravinsky are analyzed in detail. The influence of the new technology which took place in music during the early years of the century. The course
continues with a survey of the most significant composers and techniques of the succeeding seventy years. Topics to be discussed include the continuing commitment of some composers to tonality, developments in twelve-tone serialism; the influence of jazz, electronic music; the emergence of new architectural attitudes.
Examination: (MUS020)
Prerequisite: VPA045H1. It is recommended that students with no background in elementary harmony take VPA040H1 as a co- or prerequisite.
J. Mayo
Not offered: 2000/2001

VPA045H6 Materials of Music II
A continuation of VPA040H1.
Examination: (MUS009)
Prerequisite: VPA045H1. It is recommended for students with no background in elementary harmony take VPA040H1 as a co- or prerequisite.
J. Mayo
Offered: 2000/2001

VPA049H1 Canadian Music
A survey of music in Canada from the early 19th century to the present day. The course
will follow the various kinds of music in Canada, including folk songs, Native works, and the many varieties of music in the 20th century. Specific compositions will then be selected for detailed study and comparison to music in Europe and the United States. Music of the Indians and Inuit will be heard and studied.
Examination: (MUS095)
Prerequisite: VPA040H1 (MUS009) and one course from the series VPA030-
VPA033 (MUS001-MUS009).
J. Mayo
Offered: 2000/2001

VPA049H3 Stravinsky
A study of Igor Strawinsky's writings and musical compositions.
Through a detailed examination of selected works by Strawinsky, this course will focus on the manner in which his writings and compositions respond to the turbulences and rapid change of the twentieth century. The discussion will also use an analytical approach to his music in order to proceed to the apparent diversity of style during the period of his involvement with musical nationalism, primitivism, neo-classicism and serialism.
Examination: (MUS030)
Prerequisite: VPA045H1 (MUS009) and one course from the series VPA030-
VPA033 (MUS001-MUS099).
J. Mayo
Offered: 2000/2001

VPA061H3 Materials of Music I
A continuation of VPA045H1.
Examination: (MUS009)
Prerequisite: VPA045H1 (MUS010).
J. Mayo
Offered: 2000/2001

VPA063H3 Advanced Composition
A directed writing course for students who have demonstrated exceptional ability in VPA040H1 and VPA045H1 may then in certain circumstances pursue a course of
Visual and Performing Arts / Music

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. Entry for all participants is by audition. Credit students should register but will not be admitted to the course unless granted permission by the instructor during the first week of classes.

PVA4910 Concert Choir I
The practical study of a wide range of music from the choral repertoire.
Students work as members of Scarbrough College Concert Choir, a chamber choir which performs compositions drawn from the literature of the Renaissance to the present day. The choir gives public performances each term.
In addition, students may be required to prepare works in conjunction with members of the instrumental performance programs. Previous experience is desirable but not essential. The course meets two hours per week for rehearsal with VPA991H and VPC45H.
Exclusion: MUS(262)
L. Whiting

VPA4810 Concert Choir II
A continuation of VPA491H. Exclusion: MUS(262)
Preparation: VPA991H (MUS262)
L. Whiting

VPC45H Concert Choir III
A continuation of VPA491H. Students in this course meet for three hours per week, two hours with students of VPA991H and VPA92H and one hour in a seminar. In this seminar the elements of instrumental directing and conducting are introduced.
Exclusion: MUS(262)
Preparation: VPA991H (MUS262)
L. Whiting

VPA4920 Repertoire Choir I
The practical study of music from the choral repertoire.
This course is for students who have little or no experience in choral singing. In addition, learning choral works, students will be instructed in fundamental aspects of musicianship and ensemble singing. Students will find this course useful in the study of elementary theory in VPA491H.
Exclusion: VPA491H
L. Whiting

VPA4930 Repertoire Choir II
A continuation of VPA492H. Exclusion: VPA491H
Preparation: VPA491H
L. Whiting

Visual and Performing Arts / 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 advertising art. The studio experience is intended to expand the student's perception of the role of art in life, but of why and how it is made and to develop the ability to understand and communicate the challenges of contemporary art. Critical skills will be developed along with practical skills.

MAJOR PROGRAMME IN STUDIO
Supervisor: J. Hogotezak (287-7778)
This programme will give the student a full and broad exposure both to the various processes of art-making and to recent developments in art criticism. It provides some preparation for teaching at the high school or elementary level.
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. VPA441 Introduction to Art
2. VPA68Y Foundation Studies in Studio
3. VPA54H But Why Is Art?
4. VPA78R Drawing II
5. VPA77Y Painting I
6. Two and one-half additional full-course equivalents, one of which must be at the 200- or 300-level. VPA80HJ, Computers and the Arts, may be counted as part of this requirement.

MINOR PROGRAMME IN STUDIO
Supervisor: J. Hogotezak (287-7778)
Students are required to complete a total of four full-course equivalents in Studio. The four courses will be made up as follows:
1. VPA68Y Foundation Studies in Studio
2. VPA54H But Why Is 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.

Visual and Performing Arts / Studio
Students are required to complete a total of four full-course equivalents in Studio. The four courses will be made up as follows:
1. VPA68Y Foundation Studies in Studio
2. VPA54H But Why Is 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.

Visual and Performing Arts / Studio
Students are required to complete a total of four full-course equivalents in Studio. The four courses will be made up as follows:
1. VPA68Y Foundation Studies in Studio
2. VPA54H But Why Is 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.
Women's Studies (AA)

Faculty List
- Betty Beal-Jennings, L.A. L. (Paral), Ph.D. (Wayne State University), Professor (Finance)
- R.P. Thompson, M.A., Ph.D. (Toronto), Professor (Philosophy)
- L. Alvey, B.A. (McMaster), M.P.H., Ph.D. (Yale), Associate Professor and Chair (History)
- R. Boyce, M.A. (Calgary), Ph.D. (UBC), Associate Professor (Anthropology)
- L. Carney, M.A. (Columbia), Associate Professor (Fine Arts, History)
- M.C. Cuddy-Kennedy, M.A. (Ph.D.) (Toronto), Associate Professor (English)
- P.C. Hilang, B.A. (National Chiao Tung University), M.A. (Chinese Cultural University), M.A. (California), Ph.D. (California), Associate Professor (Sociology)
- P. Jacovets, M.A., Ph.D. (York, Canada), Associate Professor (History)
- M.E. Irving, M.A., Ph.D. (Toronto), Associate Professor (Classics)
- D.M. James, M.A. (Cornell), Ph.D. (Michigan), Associate Professor (Linguistics)
- L. Lang, B.A., M.A. (McGill), Ph.D. (Toronto), Associate Professor (Philosophy)
- M. Busy, B.A., M.A. (Cornell), Ph.D. (Toronto), Associate Professor (Anthropology)
- A. Sawer, B.A., M.A. (York, Canada), Associate Professor (Psychology)
- C. Clarke, M.A. (McCab), M.A. (Cornell), Assistant Professor (Visual & Performing Arts)
- S. Peddar, M.A., Ph.D. (Toronto), Assistant Professor (Visual and Performing Arts)
- C. Geiger, B.A. (Maryland), M.B.S. (Canada), Instructor
- D. Scott, B.A. (Toronto), Associate Professor (Sociology)
- D. See, B.A. (York, Canada), Associate Professor (Sociology)
- C. Chakrabarti, Ph.D. (York, Canada), Associate Professor (Psychology)

Course Descriptions:

The Major Programme in Women's Studies

The Major Programme is designed to acquaint students with the substantial body of scholarship and the critical concepts and methodologies used to examine women's issues in the major academic disciplines. Students must select seven full-course equivalents as follows:
1. WST101Y Introduction to Women's Studies
2. WST102H Current Research on Women's Issues
3. One and one-half course equivalents from the list below:
   - WST121H Race, Class and Gender
   - WST122H Women's Issues of Violence and Safety
   - WST123H Women and the Media
   - WST124H Women and Environment
   - WST125H Special Topics in Women's Studies
   - WST126H Women's Studies: Research and Methods
4. One and one-half course equivalents from the list below:
   - WST127H Women's Studies: Research and Methods

The Minor Programme offers a more concentrated course of study designed primarily for students who wish to further their Women's Studies course work into a particular area.

The Minor Programme in Women's Studies

Students must select four full-course equivalents as follows:
1. WST101Y Introduction to Women's Studies
2. WST102H Current Research on Women's Issues
3. Two and one-half course equivalents from the list below:
   - WST121H Race, Class and Gender
   - WST122H Women's Issues of Violence and Safety
   - WST123H Women and the Media
   - WST124H Women and Environment
   - WST125H Special Topics in Women's Studies
   - WST126H Women's Studies: Research and Methods

Programme must include 1.0 credits at the 3.0 level, from list A, B, or C.
WST101Y Women and the Media
An interdisciplinary approach to feminist critiques of the media.

The representation of women will be examined in media such as film, television, video, newspapers, magazines and radio. Students will also develop a perspective on women's participation in, and contributions toward, the various media industries.

Exclusions: NEW334H, NEW339H, NEW434H, NEW435H. If sufficient overlap in content is present.
Prerequisites: WSTA01Y or permission of the instructor.
T.B.A.

WST101Y Women and Development
An examination of the role of women in developing countries, how development affects these women and the potential impact that women have on the development process.

Concerns which might be discussed include: the meaning of development for women; the division of labour, food production, and technology; fertility and family planning; migration patterns; the impact of economic development on women's roles, work and family life; women's influence on development and change; development strategies which include women.
Prerequisites: WSTA01Y or permission of the instructor.
Recommended: IDS800Y or IDS802H.
Exclusions: NEW425Y

F. Syne

WST102H Special Topics in Women's Studies and Gender Issues
An examination of a current topic on women and gender studies which will integrate scholarly discussions and practical applications. Students will have the opportunity to explore recent scholarship and will participate in a related project/practicum in the community.

Specific topic and content will vary from year to year. 1999/2000: Gender Issues in the Workplace.
Prerequisites: WSTA01Y or permission of the instructor.
T.B.A.

WST101H Senior Project in Women's Studies
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: JHS601H
Prerequisites: WSTA01Y & WSTB05H (formerly WSTB01H, WSTB02H or WSTB05H required & one and one-half P.C.E.'s from the list in #3 of the Major Programme in Women's Studies (or permission of the instructor).
Co-ordinator: C. Guberman

WST206H Women's Studies: Research and Methods
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 carrying out 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.
Prerequisite: WSTA01Y & WSTB05H & one and one-half P.C.E.'s from the list in #3 of the Major Programme in Women's Studies (or permission of the instructor).
C. Guberman

Courses Not Offered in 1999/2000

WST117Y Race, Class and Gender
Exclusions: NEW334H, NEW339H, NEW434H, NEW435H. If sufficient overlap in content is present.
Prerequisites: WSTA01Y or permission of the instructor.
T.B.A.

WST206H Women's Studies: Research and Methods
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 carrying out 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.
Prerequisite: WSTA01Y & WSTB05H & one and one-half P.C.E.'s from the list in #3 of the Major Programme in Women's Studies (or permission of the instructor).
C. Guberman

Courses Not Offered in 1999/2000

WST117Y Race, Class and Gender
Exclusions: NEW334H, NEW339H, NEW434H, NEW435H. If sufficient overlap in content is present.
Prerequisites: WSTA01Y or permission of the instructor.
T.B.A.

WST206H Women's Studies: Research and Methods
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 carrying out 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.
Prerequisite: WSTA01Y & WSTB05H & one and one-half P.C.E.'s from the list in #3 of the Major Programme in Women's Studies (or permission of the instructor).
C. Guberman

Courses Not Offered in 1999/2000

WST117Y Race, Class and Gender
Exclusions: NEW334H, NEW339H, NEW434H, NEW435H. If sufficient overlap in content is present.
Prerequisites: WSTA01Y or permission of the instructor.
T.B.A.

WST206H Women's Studies: Research and Methods
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 carrying out 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.
Prerequisite: WSTA01Y & WSTB05H & one and one-half P.C.E.'s from the list in #3 of the Major Programme in Women's Studies (or permission of the instructor).
C. Guberman

Courses Not Offered in 1999/2000

WST117Y Race, Class and Gender
Exclusions: NEW334H, NEW339H, NEW434H, NEW435H. If sufficient overlap in content is present.
Prerequisites: WSTA01Y or permission of the instructor.
T.B.A.

WST206H Women's Studies: Research and Methods
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 carrying out 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.
Prerequisite: WSTA01Y & WSTB05H & one and one-half P.C.E.'s from the list in #3 of the Major Programme in Women's Studies (or permission of the instructor).
C. Guberman

Courses Not Offered in 1999/2000

WST117Y Race, Class and Gender
Exclusions: NEW334H, NEW339H, NEW434H, NEW435H. If sufficient overlap in content is present.
Prerequisites: WSTA01Y or permission of the instructor.
T.B.A.
### Admissions

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### 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, Room S3039 (Admissions and Liaison), 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) 287-7729. 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) 978-2150
e-mail: ask.admissions@utoronto.ca

**Admissions and Liaison Office at Scarborough**
2305 Military Trail
Scarborough, Ontario, Canada M1C 1A4
Telephone: (416) 287-7759
e-mail: ask.admissions@utoronto.ca
Second Year Liaison—Campus Tours
Telephone: (416) 287-7763
e-mail: liaisons.office@utoronto.ca
Web site: http://www.utoronto.ca

**Ontario Universities Application Centre**
website: http://www.ouac.on.ca
Telephone: (519) 884-0111

**Application Deadlines**

Applicants are strongly advised to submit application forms in advance of the following deadlines. In particular, applicants to the Co-operative Programmes should apply before March 1 to allow sufficient time to receive, complete, and return the Special Co-op Programmes application form.

**Admission to the 1990 Summer Session:**

- **Term I (beginning mid-May) - March 15**
- **Term II (beginning in July) - May 15**

(NOTE: Visiting Students applying from other universities on a Letter of Permission may be considered after these dates provided space in the requested course is available. Telephone (416) 287-7729 to inquire.)
Admission with Transfer Credit

Students who have completed work at another institution 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 programme requirements at the University of Toronto at Scarborough. Students transferring from other divisions of the University of Toronto are exempt from this degree requirement. Limit on transfer credit upon admission will apply.) Students must consult with the Program Supervisor before taking courses required for the program at another campus.

Applicants From Ontario Colleges of Applied Arts and Technology

1. Candidates who have completed a one-year CAAT programme (or an approved part of a two- or three-year CAAT programme) are not eligible for consideration for admission to the first year of the university unless they have also completed the final academic secondary school year of the jurisdiction in which they attended secondary school. (Master students who are at least 21 years of age should contact Admissions and Awards.)
2. Candidates who have completed a two-year CAAT programme (or two years of a three-year CAAT programme) are eligible to be considered for admission to the first year of a degree programme. Up to two transfer credits will be considered. (effective 1997; the policy change is not retroactive.)

3. Candidates who have completed a three-year CAAT programme are eligible to be considered for admission with up to five transfer credits.

Applicants Holding The International Baccalaureate

Candidates who have completed the Diploma with at least 13 points from the highest level subjects and 24 points in total, may be considered for admission and awarded transfer credit for each higher level subject with a grade of 5, 6 or 7.

Applicants From The United States of America

Candidates who have completed Grade 12 from an accredited high school with a high grade point average and good scores on the SAT I. Reasoning Tests and those (preferred) SAT II. Subject Tests will be considered. ACT and/or CBET Advanced Placement Examinations will also be considered. Applicants may request consideration for transfer credit for AP examinations.

Applicants With Other Qualifications

Candidates who wish to apply for admission on the basis of work completed in other countries or on the basis of other qualifications should write to Admissions and Awards, outlining their academic qualifications and intended area of study. Information on admission requirements for applicants from overseas is contained in the Undergraduate Admission Bulletin available from Admissions and Awards.

Mature 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 Fall/Winter Session, and
2. have been residents in Ontario as a Canadian citizen or permanent resident of Canada for a minimum of twelve months prior to their anticipated entry date, and
3. have completed one or more Pre-university courses, or
4. have achieved high standing in two OAC's completed after the student is 21 years old. One OAC must be English OAC I.

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 must wish to prepare for certain university programmes such as science programmes, may have to do additional studies to ensure all of the prerequisites will be attained.
NOTE: An applicant who enrols in a pre-university course as a refresher class must be officially recognized as a Convention Refugee or Permanent Resident at the time of admission to the faculty.

Pre-university courses are offered by Woodsworth College of the University of Toronto. For information about the pre-university courses, contact Woodsworth College at (416) 978-2845.

Senior Citizens
Canadian citizens or permanent residents of Canada who are at least 65 years of age by the first day of term, may apply for admission as part-time Special Students. Normal admission requirements are usually waived. Tuition fees will be charged but limited bursary assistance is available. Call the Assistant Registrar - Admissions at (416) 287-7529 for information.

Special Students
Special Students are those registered at U of T at Scarborough but not proceeding towards a degree. Most Special Students have completed degree studies and are taking further courses for their own reasons.

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 submit applications through their school's guidance office.

All other applicants may request an application form from Admissions and Awards, giving full details of their educational background and standing. Beginning in 1999, some applications are available on-line at the Ontario Universities Application Centre. Website: http://www.ouac.on.ca

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, as well as candidates for co-operative programmes. Additional information obtained through the co-operative programme application.

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 extraordinary 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 candidates of degree-granting institutions in Ontario meet the standards for admission to University of Toronto programmes.

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Unless specified, the following awards do not require an application; all UT at Scarborough undergraduate degree students with excellent academic standing are considered. Where deadlines are not specified, ask staff in the Office of the Registrar - Admissions and Liaison in Room S303F and check the "Scholarships" bulletin board in the Meeting Place. Check the UT at Scarborough website too for announcements.

The official award records are on file in Room S303F. UT 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 who review the "Scholarships" binder in the Resource Centre, Room S302.


A general condition for holding an entrance or in-course award is that the student must register at the University of Toronto at Scarborough in the following academic year with degree status. Students who have been awarded a scholarship which is based on enrolment in a particular programme of study must continue in that programme to receive the award. UT 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)
To qualify for consideration for OSOTF awards, students must qualify for consideration for the Ontario Student Assistance Program (OSAP).

Admission Awards
UT at Scarborough provides generous funding for entrance scholarships to students entering first year. Students transferring from other universities with outstanding academic achievement are also considered. For need-based awards, applicants must complete a University of Toronto Advanced Planning for Students (UTAPS) application which is mailed automatically to all applicants who are Canadian Citizens or Permanent Residents of Canada. Successful applicants will be notified of awards received at the time they receive an offer of admission to the University.
The National Scholarship Programme
The University of Toronto National Scholarships will be awarded to students who demonstrate superior academic performance, original and creative thought, and exceptional achievement in a broad context. The National Scholarships will be those who not only excel in academic para-site but also maintain 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 Book Award. The winners of the Book Award, and only those 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 positions in the school are determined by the school. 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 $3,000 to $12,000 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 Scholarships Programme
This program recognizes outstanding students at the University of Toronto 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, selected students may receive from their families/organizations.

 Awards under the University of Toronto Scholars Programme are not renewable. Outstanding students, however, are 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 120 scholarships at each level. These in-course awards are worth $1500 and are tenable with other fellowships.

Pumpelly Admission Scholarship
Awarded to the student entering first year whose achievements in secondary school are considered to be the most outstanding. The scholarship is awarded in memory of Professor A. F. Pumpelly, a former principal of University of Toronto at Scarborough. (1999/2000 value $4,500)

Frederick A. Urquhart Admission
Scholarships
Eight scholarships (1999/2000 value $4,500) are awarded to students entering first year on the basis of exceptional academic achievement in secondary school. The scholarships are awarded in honour of Professor Emeritus F.A. Urquhart, a distinguished zoologist.

University of Toronto at Scarborough
Admission Scholarships
Number & Value
Unlimited
$4,500
0.0%
(Where a student has been given a University of Toronto Scholar award valued at $3,000, Scarborough will offer an additional award so that the total value is at least $4,500)
Unlimited
$3,250
87.0%
95.9%
Unlimited
$2,000
87.0%
89.9%
Percentages given assume a grading scale where an ‘A’ average ranges from 80.0% to 100%.

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.

University of Toronto at Scarborough
Admissions
Scholarships
(15) $3,000 (awards valued at tuition)
Deadline: March 1

City of Scarborough Scholarships
See Need-Based Scholarships section below. A UTAPS application is required for new students.

John Balf Alumni Entrance Scholarship
Awarded to a student entering first year on the basis of academic excellence in the secondary school programme. (Value: $1,000)

Warner-Lambert Admission Scholarship
Awarded to a student entering first year on the basis of academic excellence in the secondary school programme. (Value: $2,000)

Ting Sun Tang Memorial Entrance
Scholarship
Awarded to a student on the basis of excellent academic achievement in the secondary school programme. (Value: $2,000)

University of Toronto at Scarborough
Scholarship in Studio Art
Awarded to a student applying to Arts
Humanities who intends to take a programme in studio art; awarded on the basis of an excellent portfolio that focuses on exploration of concepts and media. Application required. Deadline March 1 Send a covering letter with slides or portfolio and a letter of recommendation from an instructor or art professional to: The Supervision, Visual and Performing Arts (Studio) (Value: $750)

Opportunity Scholarships
This scholarship programme is intended to encourage the participation of groups that can be shown to be under-represented. The awards, which include admission scholarships, are designed to enhance the recruitment and success of black students (African-Canadian, Caribbean-Canadian and students of Afro-Canadians heritage). Eligible students must submit a letter to declare their eligibility and interest to: Opportunity Scholarships Admissions and Awards 315 Bloor St. W. Toronto ON M5S 1A3 Deadline: April 1

La Family Scholarships
Awarded to students who are active leaders, are respected and considered to be well-rounded citizens in their school community and who have demonstrated financial need. Applicants must submit a covering letter to outline their community activity and demonstrated leadership skills to: La Family Scholarships, Admissions and Awards, 315 Bloor St. W. M5S 1A3, Deadline: April 1

Frank M. Waddell Scholarship
Awarded to a student from Bloor Town, Toronto on the basis of academic excellence. Application required. Submit a letter indicating how the Bloor Town community contributed to Waddell Scholarships. Admissions and Awards, 315 Bloor St. W. Toronto ON M5S 1A3 Deadline: April 1

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, are 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 100 scholarships at each level. These in-course awards are worth $1500 and are tenable with other in-course scholarships.

A.D. Allen Scholarship
Awarded to the outstanding student in each year at University of Toronto at Scarborough. In any field of study. The scholarships are awarded in memory of Dr. A.D. Allen, a former principal of Scarborough.

Vincent Bladen In-course Scholarships
A total of six scholarships are awarded on the basis of exceptional academic achievement at the completion of each year of study. The scholarships are awarded in memory of Professor V. Bladen, a former member of the faculty in Economics.

University of Toronto at Scarborough In-course Scholarships
Awarded to the outstanding students in each year at Scarborough.

University of Toronto at Scarborough
Student Council Prizes
Awarded to a student in good academic standing entering the third, fourth or fifth year who has made an outstanding contribution to the Academic, Social or Cultural life of U of T at Scarborough. Application or nomination required.
Deadline: September 30

Joan E. Foley Award
Awarded to a student, alumnus, administrative staff member or faculty member who has made a significant contribution toward improving the quality of academic or extracurricular student life on campus. Sponsored by the University of Toronto Alumni Association, Nomination required. The deadline is normally in December.

Neil H. Dobbs Award
Awarded to a student on the basis of financial need. Academic merit will also be considered.

Stanley Koza Tuition Scholarships
Awarded on the basis of academic excellence to one or more students registered in a Life Sciences Undergraduate Science programme which leads to a Bachelor of Science degree.

Normer F. Brown Memorial Award
Awarded to a student enrolled in the second or third year of a programme in the division of Humanities on the basis of excellent academic achievement.

The Humber Company Scholarship
Awarded to the student who has demonstrated outstanding academic achievement at the end of third year.
Gillam Prize in Science
1. One prize will be awarded to a student entering the fourth year of the Specialist Programme in Cell and Molecular Biology.
2. One prize will be awarded to a student entering the fourth year of a Specialist programme in Computer Science.
3. One prize will be awarded to a student entering the fourth year of a Specialist programme in Environmental Sciences. Preference will be given to students who have completed at least 80% of the P.C.E.R. required for the programme with excellent standing.

The Rouge Watershed Scholarship
Awarded to a student enrolled in an environmental science, ecology or geography programme on the basis of excellent academic achievement, strong interest in environmental issues and active participation in environmental projects within the university or community. Application Required. Deadline: April 30 (GSSTP)

The University of Toronto Women's Association Lois Dove Memorial Scholarship
Awarded to a student on the basis of excellent academic achievement in the third year of a four-year undergraduate degree programme.

The A. T. Taye Memorial Scholarship
Awarded to a student who demonstrates excellent scholarship in political geography or status of developing nations.

Black Prize in Economics
Awarded on the basis of an essay submitted by a student specializing in Management or Economics on any subject covered by a B-, C- or D-level course in Economics.

Tom McNeill Prize in Anthropology
Awarded to the outstanding student entering the final year of the Major or Specialist Programme in Anthropology.

John Pounder Prize in Astronomy
Awarded to a full-time student entering the third year of a physical sciences programme on the basis of an essay written for ASTAGY and one B-or C-level course in Astronomy.

John S. With Prize in Canadian History
Awarded to the student with the highest standing in HIST481 Introduction to Canadian History.

William Beadmore Memorial Prize in History
Awarded to the student completing third year, who is in the opinion of the members of the teaching staff in History, has excelled in the study of History. Awarded in the memory of William Beadmore, a History graduate of UofT at Scarborough.

The Morris K. Shaver History Prize
Awarded to a student entering the third year of the Major or Specialist Programme in History on the basis of academic performance (at least B+) and financial need. Emphasis is placed on academic performance. Application Required. Deadline: September 30

Diether Seeber Essay Prize
Awarded on the basis of an essay on a topic focusing on Canadian politics or a similar field of Canadian Studies. The essay should have Canada as its primary focus. Essays are normally those submitted for coursework. Nomination are usually made by instructors to the Chair of the Division of Social Sciences by April 15, and should include a copy of the essay and a cover page showing full name of the student, student number and the name of the course for which and professor to whom the essay was originally submitted.

McClintock and Stewart Essay Prize in Canadian Studies
Awarded on the basis of an essay, 2,500 to 5,000 words in length, on a topic focusing on Canadian art, drama, music or literature. Essays are normally those submitted for course work and nominated by instructors. However, instructors may also submit a copy of their essays directly to the Chair of the Division of Humanities by April 30. Include a cover page showing full name, student number and the name of the course for which and professor to whom the essay was originally submitted.

The Oxford University Press English Essay Prize
Awarded for the best essay written for an English course, in the past academic year. Essays are nominated by instructors.

The Margaret H. McCoy Johnston Scholarship
Awarded to the student enrolled in a major or specialist programme(s) in a modern language who, on entering the third or fourth year, has the highest grade point average in courses taken to satisfy the programme(s), (minimum gpa 3.2).

Peter Moses Prize in French
Awarded for the best undergraduate essay in French drama. Essays are nominated by instructors.

Anita Fitzgerald Prize in Women's Studies
Awarded for the best essay in the area of Women's Studies. Essays are nominated by instructors.

Dr. Vivian Paskel Memorial Prize in Psychology
Awarded to a full-time student entering the fourth year of the Specialist Programme in Psychology, on the basis of excellent academic achievement.

The Katherine Hapgood Philosophy Prize
Awarded to a student in the Major or Specialist Programme in Philosophy before the beginning of the third or fourth year of study whose grades and performance in Philosophy, in the opinion of the Faculty in Philosophy, have demonstrated excellence in the subject.

Margeson Scholarship in English
Awarded to an outstanding student who has completed the second year of the Major or Specialist Programme in English.

Leigh Lee Brown Scholarship in Drama
Awarded to a student displaying outstanding ability in the dramatic arts who is either continuing in a Drama Programme at UofT at Scarborough or is graduating and has registered in an advanced training programme in the dramatic arts. Application required. Deadline: June 1

Abraham Kazininsky Prize in Music
Awarded for the best essay or original composition in a course in music offered at the University of Toronto at Scarborough.

Arthur Lowden Scholarship(s)
Awarded to one or more students enrolled in the Early Teacher Project (open to students enrolled in Physical Sciences Scarborough programmes) on the basis of academic achievement (minimum 3.3 gpa).

University of Toronto at Scarborough Philosophy for Altruism Prize
This award is currently under review.

Toronto Kalteur 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 Kalteur 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. Paul 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 achievement in BIO101 INTRODUCTORY Biology (minimum 3.5 gpa). Emphasis will be placed on the laboratory component of the course and overall contribution to the class.

University of Toronto at Scarborough Prize in Biology
Awarded to a full-time student entering the fourth year of a specialist programme in biological sciences on the basis of excellent academic achievement. Emphasis will be placed on achievement in the third year of study.

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 in a graduate or secondary school in Scarborough, (iv) has a good academic record (minimum B average,90.0 GPA) and (v) demonstrates financial need. Application Required. Deadline May 31

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,90.0 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. (GSSTP) Application Required. Deadline May 31
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 higher school or community (i) in Canada Citizen or Permanent Resident, (ii) has a good academic record (minimum B average of 3.5 GPA) and (iii) demonstrates financial need. (OSOTYP) Application Required. Deadline May 31
City of Scarborough Scholarships
See Financial Need section below.
Brian David Reidford Memorial Scholarship in Management
Awarded to one or more students entering the third or fourth year of a Management programme whose academic and athletic achievement, combined, best exhibit dedication to excellence. (Minimum grade point average of 3.38%). 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 or Management and Economics, and who has completed the following courses with the highest average grade: MGTC001, MGTC010, MGTC013, MGTC020, MGTC021. Donated by The Society of Management Accountants of Ontario
Keith and Amelia 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. (OSOTYP)
The Harvey Bastift Award in Financial Accounting
Awarded to a student completing the third year of the Specialist Programme in Management or Management and Economics with the highest grade (at least A minus) in MGTC010. Donated by KPMG
Hu Chiu Man Memorial Scholarship in Management
Awarded to student entering second, third or fourth year in a management programme. Financial need must be considered in addition to academic merit. (OSOTYP)
Mr. Subramanyan Memorial Award
Awarded to an undergraduate student enrolled in a management programme on the basis of outstanding academic achievement. Donated by Mr. Subramanyan. (OSOTYP)
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 achievement on the work placement.
Arts Management Scholarships
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. (OSOTYP)
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. Academic merit will also be considered. (OSOTYP)
Frank Faubert Scholarship in International Development Studies
Awarded to a student enrolled in the Co-operative Programme in International Development Studies who is starting his/her work placement.
Gerald R.T. Ho Scholarship in International Development Studies
Awarded to a student entering second, third or fourth year in the Co-operative Programme in International Development Studies. Financial need must be considered in addition to academic merit. (OSOTYP)
Canadian Society for Chemistry Silver Medal Award
Awarded to the student entering the fourth year of a specialist programme in Chemistry who has the highest standing in the programme in third year.
Canadian Society for Chemistry, Toronto Section Book Prize
Awarded to the most improved student entering the first year of a specialist programme in Chemistry.

Division of Physical Sciences Book Award in Chemistry
Awarded to a student entering the third year of a programme in chemistry based on academic achievement in the courses required for the programme (a minimum of three Chemistry courses must be completed to be considered).

Rehm & Haux Canada Scholarship
Awarded to one or more students entering either (i) the third year of a major programme in chemistry or (ii) the third or fourth year of a specialist programme in chemistry. Financial need must be considered. Academic merit will also be considered. (OSOTYP)

University of Toronto at Scarborough OSOTYP Scholarships
Awarded to students enrolled in undergraduate degree programmes on the basis of financial need. Academic merit will also be considered. (OSOTYP)

Frank M. Waddell Scholarship
Awarded to a student from Brant County, Ontario on the basis of academic excellence. Application required. Check Award Binder for deadline.

Andrew Tseung Memorial Scholarship in Bio-Canadian Studies
Awarded to the undergraduate whose academic performance and extra-curricular activities in the area of Chinese studies and Sinocanadian studies best exhibit commitment to Chinese-Canadian cultural and economic ties.

Samuel Bently In-Course Scholarships
Awarded to students enrolled in second, third or fourth year, in a Specialist Programme offered by the departments of Mathematics, Physics or Computer Science (Faculty of Arts and Science, UofT at Scarborough) on the basis of academic performance and financial need. Application required.

APUS Scholarships Awards
Part-time undergraduate students who (a) have completed at least five full courses of which four are in an area of specialization, and (b) have obtained a B average (GPA of 3.0) in the most recent five full courses, may be considered. Application required.

APUS Award for the University of Toronto's Outstanding Student
Part-time undergraduate student who (a) have completed at least five full courses with a B average (GPA of 3.0) in the last five full courses, and (b) have demonstrated outstanding achievement or commitment in activities distinct from their University studies or have overcome adverse circumstances in order to attend University, may be considered. Application required.

Jodha Nag Scholarship Awards
Part-time students who have a GPA of at least 3.5 in the most recent five courses who have completed the majority of their courses on part-time basis may be considered. Sponsored by APUS. Application required.

Need-Based Scholarships; Bursaries/Grants; Financial Assistance
NOTE: Some scholarships listed above may also have a financial need component.

University of Toronto Undergraduate Bursaries or Grants
Applicants must demonstrate financial need. Applications may be obtained from the Office of the Registrar Room 309, Deadline: November 1; however, applications will be accepted after this date should emergency arise and funds still be available.

University of Toronto Advance Planning for Students (UTAPS)
Students who are concerned about financing their university studies may obtain early information about government and other financial assistance by completing a UTAPS application. These applications are mailed in the spring to all Canadian citizens and permanent residents who have applied for admission to full-time studies at the University of Toronto. The student will receive notification of UTAPS eligibility with the offer of admission. Remaining students, with calculated need above their government-funding maximum, will receive an application for UTAPS bursary assistance in the fall.

City of Scarborough Scholarships
Awarded to students entering first, second or third year in a degree programme offered by the Division of Management and Economics on the basis of financial need. Eligible candidates are to be limited to graduates of high schools within the geographic area of the Corporation of the City of Scarborough as it existed on December 31, 1997. (OSOTYP)
Graduation prizes

Graduation Prizes in Humanities, Life Sciences, Management & Economics

Graduation Prizes in Humanities awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Life Sciences and Management awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Economics awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Engineering awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Social Sciences awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Law awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Medicine awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Dentistry awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Pharmacy awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Nursing awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Architecture awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Design awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Fine Arts awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Music awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Theatre awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Film awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Visual Arts awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Communications awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Business awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Law awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Education awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Clinical Practice awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Research awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Service awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Athletics awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Exemplary Service awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Leadership awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Entrepreneurship awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Philanthropy awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Creativity awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Innovation awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Sustainability awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Civility awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Diversity awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Inclusion awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Equality awarded to the outstanding members of the graduating class in each of the areas of specialization.

Graduation Prizes in Equality awarded to the outstanding members of the graduating class in each of the areas of specialization.
Student Record System (ROS) / Course Key

4 Credit Value of a Course

The seventh character of the course code indicates the credit value of a course as follows:

- Final Letter
- Credit Value
- Y Full Course
- H Half Course

5 Campus

The 'F' at the end of the code indicates a course on the Scarborough Campus of the University of Toronto.

6 Section Code

Section code indicates the duration of the course as follows:

- Summer Session Fall / Winter Sessions
- Y May - Aug. Sept. - May
- F May - June Sept. - Dec.
- S July - Aug. Jan. - May

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. Students are permitted to waive prerequisites if they feel that they have adequate grounds for doing so. Students registering in a course without meeting its prerequisite and without obtaining a specific waiver, the student may be withdrawn from the course at any time. Students who are not withdrawn from the course remain in it at their own risk, for lack of the prerequisite is grounds for special consideration. Students who complete courses for which they have obtained a waiver of specific prerequisites may not subsequently obtain credit for the less advanced prerequisite courses.

3 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. Instructors are permitted to waive corequisites if they feel that there are adequate grounds for doing so. If students register in a course without meeting its corequisites, or if they withdraw from the required course without obtaining a specific waiver of
the course, they may be withdrawn from the course at any time. Students who are not withdrawn from the course remain in it at their own risk, for lack of the course is not grounds for special consideration.

4. Exclusions, Prerequisites and Corequisites in Paraphernalia
Prerequisites in Square Brackets
Square Brackets are used in prerequisites to indicate aggregate or alternate course examples only (ENGROB1Y or ENGROB2Y or ENGROB3Y or ENGROB1Y & ENGROB2Y or ENGROB1Y & one B-level course in Humanities or Social Sciences). Some exclusions and some prerequisite and corequisite courses are enclosed in parentheses, examples: (LATR01). 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 prerequisite or corequisite course contained in parentheses may make use of the course in the requirements of the course being described.

Supervised Reading, Supervised Research and Independent Study Courses
Students in these courses work under the direction of a faculty member with whom they meet periodically or in whose laboratory they work. Students must obtain written permission of instructors before enrolling in them. (Preliminary 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 must not register for credit for a course if they have already passed a corequisite course.
3. Students may not register for credit for a course in a course that has already passed. In such cases, both registrations in the course are cancelled, both grades as well as the student's grade point average, and both grades as the student's grade point average.
4. Students may not register for credit for a course which is a specific prerequisite for a course they are already passing.
5. Where students may not register for 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 in each session. Students should, however, note the following:
   - The usual load maximum for a full-time student is 20 courses. For a summer course, the maximum is 10 courses.
   - The usual load maximum for a part-time student is 15 courses. For a summer course, the maximum is 7 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 do so at their own risk.
7. Students who wish to register in courses on a part-time basis should consult the Registrar's Office for any special requirements.

Registration
Registration consists of two basic steps:
1. Course selection, and
2. Fees payment.
Both must be completed by the appropriate deadlines in order to be considered a "registered student" and to retain a place in any course selected. (For deadlines and further information, see the registration material published separately for each session.)

Student Telephone and Web Services
ROSI's Line (416-472-ROSI)
University of Toronto at Scarborough students may use ROSI's Line.

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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 the Office of Undergraduate Studies, see page 15 of this Calendar.

Summer Session
1999 Summer Session registration begins April 12. Students who register at the College in the 1999 Summer Session or the 1998 Summer Sessions and who are not on suspension are eligible to register. On March 21 & 24, students may pick up their registration package in the Session Meeting Place. New students, students who re-registered (i.e. re-enrolled after an absence of one year or more) and other students who are not on campus (e.g. students who withdrew) will be mailed their registration material upon request. Most courses in the Summer Session are assigned on a first come-first served basis.

Fall & Winter Sessions
1999 Fall/Winter Session registration begins June 30. Students who register at the College in the 1998 Fall & Winter Session and who are not on suspension are eligible to register. Registration packages will be available in the Session Meeting Place March 23 & 24.

Student Telephone and
Web Services
ROSI's Line (416-472-ROSI)
University of Toronto at Scarborough students may use ROSI's Line.
Course changes

- view personal information (ROST's Page only)
- access their fees account (ROST's Page only)
- list their ROST's Line and ROST's Page transactions (ROST's Page only)
- avoid lineups

Access to ROST's Line and ROST's Page is through Person ID (student number) and a six digit personal identification number (PIN). All PIN's are set initially to year, month and day of birth (e.g., 19820323 = March 23, 1982) and must be changed to one of the student's own choice before access to the services is granted. Students accessing ROST's Line or ROST's Page for the first time will be prompted to change PIN. 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 ROST's Line and ROST's Page suspended and should contact the Registrar's Office immediately. Access will not be restored without photo identification.

Service to the hearing-impaired
Access to ROST's Line is available by the Bell Relay or by contacting the Special Services Office via TDD at 416-978-8060.

Student System Access Fee
Incidental fees each session include a Student System Access Fee.

Further information on ROST's Line and ROST's Page is included in the registration material.

University of Toronto at Scarborough
Home Page (www觥scar.p.ontario.ca)

Available information includes:
- the information in this calendar
- changes to the calendar
- timetable for each session
- timetable changes
- examination timetables
- divisional, department, and course information
- faculty home pages
- faculty and administration telephone directories

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 ROST's Line or ROST's Page. The deadlines for adding or withdrawing from courses are strictly applied.

Standing in a course

Credit schemes (as of September 1996):
Students are assigned a grade in each course. As follows (Grades earned prior to September 1998 will remain as originally reported):

<table>
<thead>
<tr>
<th>Grade</th>
<th>Point Value</th>
<th>Percentage</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
<td>90-100</td>
<td>Excellent</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>90-89</td>
<td>Good</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>89-84</td>
<td>Adequate</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>84-79</td>
<td>Adequate</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>79-75</td>
<td>Adequate</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>75-72</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>72-69</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>69-66</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td>66-63</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
<td>63-60</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>60-57</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
<td>57-52</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>NR</td>
<td>0.0</td>
<td>52-0</td>
<td>No credit</td>
</tr>
<tr>
<td>CR</td>
<td>0.0</td>
<td>No Value</td>
<td>No credit</td>
</tr>
</tbody>
</table>

Grades of F and NR 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 intended to be automatically equivalent to the corresponding letter grade.

Credit in courses

In some courses such as visual and performing arts courses or certain drama courses, specific letter grades may not be assigned. Students may instead be graded as a Credit/No Credit (CR/NCR) system. The grade of "No credit" is a failing grade. Students earn a grade of "Credit" in a course, the course is not included in the grade point average; where students earn a grade of "No Credit", the course is included as an F (value zero) in the grade point average.

Agreement standing

On petition, a grade of "Agreement" (AG) may be assigned. This grade is assigned on the basis of work completed where medical or similar evidence demonstrates that the 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 Agreement 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 Selection" on page 256). 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 information

The following have no grade point value and do not yield credit:
WDR - Withdrawal by petition without academic penalty after the relevant deadline. (See "Special Consideration, Petitions and Appeals" on page 223.)
GWR = Grade withheld pending review
NRA = No grade available
STP = Staying deferred on the basis of incomplete course work because of medical or similar reasons.
IFP - In progress

Overall standing

Grade point averages (GPA's)

1. A grade point average is calculated as follows: the grade points earned in each full course 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) ROST's.

2. A seasonal grade point average is calculated on the basis of all courses taken in a given session (Fall, Winter or Summer) having a grade point value.

3. An annual grade point average is calculated on the basis of all courses taken in the Fall / Winter sessions (September - May) having a grade point value.

4. A cumulative grade point average is calculated on the basis of all courses taken having a grade point value.

The following grade point averages will be calculated for all students at the end of each session and shown on the student's transcript: Summer Session - Sessional and cumulative GPA
Fall Session - Sessional and cumulative GPA
Winter Session - Winter, Annual and Cumulative GPA
The status of students admitted on condition will be assessed at the end of the session in which each student completes their second full-course equivalent.

2. Where a student earns 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.

3. Where such students earn a cumulative grade point average of less than 1.70, they will be suspended for one year.

4. Upon their return from suspension, their academic status will be reassessed as if it was assessed for any other student returning from suspension.

Determination of academic status for re-enrolling students at University of Toronto at Scarborough

Students who have attended any other institutions since their last registration at Scarborough must arrange for official transcripts of other post-secondary studies to be sent to University of Toronto at Scarborough upon application for re-enrollment. Performance in courses taken elsewhere (including other divisions of the University of Toronto) will be taken into consideration in determining whether to approve the application and whether to make any change in the student's academic status.

Students who study at other universities without prior permission from University of Toronto at Scarborough are not eligible for transfer credit for such study. See also the section "Study at other universities".

Study at other institutions or other divisions of the University of Toronto

Students that wish to take courses at another university and have credits transferred to the University of Toronto must receive permission from the University of Toronto to do so prior to taking the course. Students who study at other institutions where University of Toronto's approval in advance do not have the same course. Students who study at other institutions without permission to transfer credit is not usually granted after the course has been taken. Students should also be aware that duplication of previous study is not permitted. Students who study at another institution after leaving University of Toronto at Scarborough are required to supply official transcripts upon re-enrollment. Grades attained at other institutions are not transferable to the student's academic status.

There are three types of programming where credit transfer is considered. The Study Elsewhere programme allows a student to study full-time at an accredited university in a different cultural setting to enhance the student's educational experience. A Letter of Permission allows a student to study at a university similar in setting to the University of Toronto. Study Exchange Programmes, similar to Study-Elsewhere Programmes or full-time Letter of Permission programmes, have the advantage that students pay fees at the home university. The regulations governing the programmes are different.

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(1) Letters of Permission

To take a course at another university, students must, in advance, apply for and receive a "Letter of Permission" from University of Toronto at Scarborough. Requests should be addressed to the Assistant Registrar - Admissions, Room S303P. Requests should include the name of the university, the course number, title and description. Course requests must be appropriate for Arts and Science degree credit at this university. In addition the student must give reasons why the Letter of Permission is necessary. To be considered, a student must have completed the equivalent of one year of full-time study and be in good standing. A maximum of 5.0 credits may be obtained on a Letter of Permission. If a student has received 5.0 or more transfer credits upon admission, it is unlikely that a Letter of Permission will be allowed. Letters of Permission are not normally granted for study at institutions within Metropolitan Toronto and surrounding regions. Only 1.0 credit at the C- or D-level will be permitted to be taken on a Letter of Permission. A student who completes the final course(s) for the degree during the Winter Session may not apply to graduate at the June convocation but may apply for graduation at the December convocation. A fee will be charged for each Letter of Permission issued.

Special Note: French Summer Immersion Programme

The French Language Program is funded by the Royal Society of Canada in cooperation with the Canadian government. Application for admission must be made in May. Students interested in applying to this programme (in Quebec or elsewhere in Canada) should contact the French Language Program Office in December for expected date of application and interview with the Assistant Registrar. The study Elsewhere Supervisor in French for advice about choosing three universities offering courses which most closely correspond to the curriculum at the University of Toronto. Submit the form to the Registrar's Office.
University of Toronto at Scarborough

(0) Study Elsewhere program

(0) International Student Exchanges

(0) Grades and Accountability

Policy on access to student records

1. Principle

2. Academic records of students are ultimately the property of the University, and it is the responsibility of the University to establish overall policies governing disclosure of academic records. This policy establishes university-wide aims, objectives, criteria and procedures which shall apply to the academic records of students in academic divisions of the University.

3. The purpose of this policy is to combine consistency with flexibility in such a way to Insure:

i. Students, alumni and former students are allowed as great
Policy on Access to Student Records

A degree of access to their own academic records as is academically justifiable and administratively feasible.

A student's right to privacy in relation to the creation or keeping of any records or documents, facts or opinions that are held by the University is protected and is in accordance with the University’s policy on the warranty of academic freedom and academic due process.

There will be a basic university-wide consistency in the kinds of information collected, recorded, filed and made available.

In keeping with the pluriartic nature of the University.

The official student academic record shall be maintained by the University. For each type of information, academic divisions shall designate which documents, forms or media contain the official version and how official copies of such information will be identified.

Access to official student academic records

Access by a student

(i) A student may examine and have copies made of his or her official student academic record defined in Section 3 above, with the exception of those portions of the record which comprise letters of reference (Section 3(b)(v)) which have been provided or obtained on the request of the student.

Registration and enrollment information

Results for each course and academic period.

(iii) Results of each course and academic period.

(iv) Data from student academic performance subsequent to his or her admission, used to judge his or her progress through an academic program.

Basic for a student's admission such as the application, any supporting documents.

Results of all examinations and appeals filed by a student.

Medical information relevant to a student's academic performance which has been furnished at the request of the student concerned.

Letters of reference which may or may not have been provided on the understanding that they shall be maintained in confidence.

Personal biographical information such as address and telephone number.

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(i) A student may examine and have copies made of his or her official student academic record defined in Section 3 above, with the exception of those portions of the record which comprise letters of reference (Section 3(b)(v)) which have been provided or obtained on the request of the student.

Registration and enrollment information

Result for each course and academic period.

(iii) Results of each course and academic period.

(iv) Data from student academic performance subsequent to his or her admission, used to judge his or her progress through an academic program.

Basic for a student's admission such as the application, any supporting documents.

Results of all examinations and appeals filed by a student.

Medical information relevant to a student's academic performance which has been furnished at the request of the student concerned.

Letters of reference which may or may not have been provided on the understanding that they shall be maintained in confidence.

Personal biographical information such as address and telephone number.

The official student academic record shall be maintained by the University. For each type of information, academic divisions shall designate which documents, forms or media contain the official version and how official copies of such information will be identified.
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 draw up plans for the eventual disposition of their records in consultation with the University Archivist and in accordance with an approved records schedule which is in compliance with this policy.
(b) Those portions of the official student academic record as defined in Section 5(a) shall be retained permanently. Each academic division's records schedule shall specify the document, form or medium in which those 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 secretary 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
The following is the text of the University grading practices policy. Square brackets [ ] indicate addition or changes in 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 throughout the University reflect appropriate academic standards,
(b) That the evaluation of student performance is made in a fair and objective manner against these academic standards,
(c) That the academic standing of every student can be accurately assessed even when courses have been taken in different divisions of the University and evaluated according to different grade scales.

Application of Policy
The Policy applies to all individuals and committees taking part in the evaluation of student performance in degree, diploma, and certificate course credits (hereafter referred to as courses).

Amendment to Policy
Amendments to the Policy shall be recommended to the Academic Board.

Changes in the divisional regulations on grading practices shall be forwarded to the Committee on Academic Policy and Programs.

Distribution of Policy
A copy of the Grading Practices Policy as well as the description of the grade scales and the substance of divisional regulations indicated in Part II of this Policy shall be published in the Calendar of the division. Similarly a copy shall be given to all students upon initial registration and to all instructors and others, including teaching assistants, involved in the evaluation of student performance.

The Policy is in three parts: Part I deals with grades, Part II outlines grading procedures to be adhered to in divisional regulations adopted as part of this Policy, and Part III is an administrative appendix available upon request from the Office of the Vice-President and Provost.

PART I: Grades
Meaning of Grades
Grades are a measure of the performance of a student in individual courses. Each student shall be judged on the basis of how well he has observed the course materials.

1.1 A grade assigned in a course is not an assessment of standing within a program of studies. To determine the requirements for credits and standing in a program of studies, the academic regulations of the division in which the program is offered shall be consulted.
Grades for each course shall be assigned with reference to the following numerical scale (which may be expanded in the university regulations under Part 3):

- Excellent
- Good
- Adequate
- Marginal
- Inadequate

1.2 The information in grade reports and transcripts must be communicated to the student, whether within or outside the University, in a clear and meaningful way. To that end, transcripts must include:
   (i) an enrolment history, which traces chronologically the student's entire participation at the University;
   (ii) a "grade point average" based on a 4-point scale for all undergraduate divisions (Note: grade point average values will be assigned as follows: AA = 4.0, A = 3.7, B+ = 3.3, B = 3.0, B- = 2.7, C+ = 2.3, C = 2.0, C- = 1.7, D+ = 1.3, D = 1.0, D- = 0.7, F = 0.0);
   (iii) an overall grade for each course expressed using the refined letter grade scale in which FZ replaces the C, D and F grades in (i) above and/or
   (iv) the scale Honours/Pass/Fail and Credit/No Credit.

1.4 Grades should always be based on the approved grade scales. However, students may find that on any one examination they may receive a numerical or letter mark that reflects the score achieved on the test or essay. The cumulative score may not be directly identified with the final grade. Grades are final only after review by the divisional review committee, described below.

1.5 Grades will be assigned according to the numerical scale of marks referred to in 1.3 (b) above, and converted to the refined letter grade scale of 1.3 (a) above. In graduate divisions, grades may be assigned according to the converted refined letter grade scale of 1.3 (a) above. The Honours and Credit/No Credit scales of 1.3 (a) above may also be used. However, the grades assigned in a course must all be from the same scale.

1.6 All non-grade designations used in reporting course results must correspond to the University-wide standard. A list of the current approved designations and their meanings is given in the Appendix A.2.

1.7 Divisional Review Committee
   (a) the implementation of the University Grading Practices Policy at the divisional level and the general consistency of grading procedures with the division;
   (b) approves and administers the University’s specific regulations concerning the grade scale; or scale to be used, the assignment of non-grade designators for course work, classroom procedures and approved methods of evaluation;
   (c) review, adjust and approve course grades recommended by instructors. The grades recommended for any individual student in the professional faculties may be adjusted according to his or her performance in the course or program as determined by the committee. The divisional committee has the final responsibility for assigning the official course grade.

2.2 Classroom Procedures
   To ensure that the method of evaluation in every course reflects appropriate academic standards and allows students, divisional regulations governing classroom procedures must be consistent with the policies in this section.
   (a) As early as possible in each course, the instructor shall make arrangements for the divisional committee to be the final authority in the class and shall file with the division or department, the methods by which student performance shall be evaluated. This should include the final evaluation in each course, the method of evaluation shall be essay, test, examination, the relative weight of these methods in relation to the overall score, and the timing of each major evaluation.

   After the methods of evaluation have been made known, the instructor may change them or their relative weight without the consent of at least a simple majority of the students enrolled in the course. No new essay, test, examination, etc. should have a value of more than 80% of the grade. Criteria for exemption may be determined by the division.

   The courses that meet regularly as a class shall be an examination (or examinations) conducted formally under divisional auspices and worth (alone or in the aggregate) at least one-third of the final grade. Criteria for exemption may be determined by the division. The relative weight 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 it shall be made available to students.

   At least one piece of term work which is part of the evaluation of student performance, whether essay, report, review, etc., shall be submitted to the student prior to the last day for withdrawal from the course without penalty.

   Grades shall be recommended by the instructor in reference to the approved grade scales on the basis of the student's overall performance.

   In formulating their own regulations for protection to the extent permitted to (a) and (b) and may not adopt specific provisions, for example in place of each term of such as "for a significant number of the final grade," or in particular, the evaluation methods referred to in (a).
8.3 Procedures in the Event of Disruptions

Prerequisites

The following principles shall apply in the event of disruption of the academic program:

i. The academic integrity of academic programs must be honored;

ii. Students must be treated in a fair manner recognizing their freedom of choice to attend class or not without penalty.

Procedures

(a) The Vice-President and Provost, or the Academic Council, shall declare when a disruption of the academic program has occurred. The Provost shall take steps to inform the University community at large of the changes to be implemented, and will report to the Committee on Academic Policy and Programs regarding the implementation of the procedures and changes to the status of the academic programs.

(b) Individual instructors or multi-section co-ordinators responsible for courses that are disrupted shall determine, as the disruption proceeds, whether any changes to classroom procedures are needed to complete the course.

(c) Changes to the classroom procedures should, where possible, first be discussed with students prior to the class in which a vote of the students present on the proposed changes is to be taken. Changes agreed upon by 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 arrived at, or where a vote is not feasible, the instructor, after class discussion, will provide the division head or chair of the department in multi-departmental faculties, with his/her recommendation, along with the results of any student 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. When courses are to be cancelled, approval of the divisional council is required. If the divisional council cannot meet, approval of the divisional head, or in the absence of the divisional head, the approval of the Provost is required.

(f) Students must be informed of changes in classroom procedures. This may be done by circulating the changes in writing to the class, posting in the departmental and faculty offices, reporting to the divisional council, as well as listing in the campus press.

(g) Should classes resume students must be informed, at class, of any changes made during the disruption.

(h) When a declared disruption occurs to a specific course after the last day to drop courses for the academic term or semester, students who do not wish to complete the course(s) during the term or semester, may, prior to the last day of classes, withdraw without academic penalty. Such students shall receive a full refund of the course tuition fee.

(i) Where students have not attended classes that are meeting, they nonetheless remain responsible for the course work and meeting course requirements. However, where possible, extension of deadlines for the course requirements, or provision of make-up tests shall be made and reasonable access to material covered should be provided.

(j) An instructor who considers that a disruption has unreasonably affected his or her grade in a course may appeal the procedures as set out in each division. If the divisional council is approved, the instructor's original grade will be replaced by either an assessed grade or by a grade of CUNCH, or as deemed appropriate in the particular circumstances.

8.4 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 these procedures is not possible. Nevertheless, it is obligatory that the assessment of the performance of students in clinical or field settings should be fair, humane, valid, reliable, and in accordance with the principles enunciated in the University Grading Practices Policy. Accordingly, where student's performance in a clinical or field setting is to be assessed for credit, the evaluation must encompass a minimum:

(a) A formal statement describing the evaluation process, including the criteria to be used assessing the performance of students and the appeal mechanisms available. This statement should be available to all students before or at the beginning of the clinical or field experience.

(b) A mid-way performance evaluation with feedback to the student.

(c) Written documentation of the final assessment, in addition, for each clinical and field experience, divisions must ensure that:

- 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.

- Any exception from the above would require a divisional request with explanation for approval by the Governing Board.

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 specify 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 variation in class grades is not unusual. The division may request an explanation of any grades for a course that exceed the limits and hence appear not to be based on the approved grade 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 divisional calendar the existence of any such limits.

(c) The criterion that the Divisional Review Committee shall employ in its evaluation is whether the instructor has followed the University Grading Practices Policy. The Review Committee shall not normally adjust grades unless the consequences of allowing the grades to stand would be injustices to the standards of the University, or the student in general.

(d) Membership on the Divisional Review Committee may include students but should not include members of the divisional appeals committee(s).

(e) Where grades have been adjusted by a divisional committee, the students as well as the name of the student must be informed. On request, the statement of the grade change shall be given for the reason for the adjustment and the description of the methodology used to adjust the grade. This description of the divisional appeal process shall be provided.

(f) Where a departmental review committee has changed Council grades, the faculty office shall be so informed. Having done so, the faculty office shall relay the information, upon request, to the students or the instructor with a description as to the reason for the change and the methodology used.

(g) Past statistical data, including drop-out rates, mean arithmetic averages, etc., shall be provided to the Divisional
IL&6 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 where marks have been altered by the reviewer or not. These procedures shall be outlined in the divisional Calendar and available upon request at the faculty or registrar’s office.

IL&7 Student Access to Examination Papers
(a) All divisions shall provide access to copies of the previous year’s final examination papers and other year’s examination papers to students. Examinations may be granted by an appointed member of the faculty or department.

(b) All divisions shall provide students with the opportunity within a reasonable time to review their examination paper where feasible. A recovery fee should be set to cover administration costs including photocopying.

(c) All divisions shall provide, in addition to the customary re-reading of examination papers, the opportunity for students to request the re-reading of their examination papers if feasible. A recovery fee should be set and returned when appropriate.

IL&8 Conflict of Interest
Where the instructor or a student has a conflict of interest, or is in a situation where a fair and objective assessment may not be possible, this should be disclosed to the chair or division head who shall take steps to ensure fairness and objectivity.

Examinations
Examinations are held at the end of each term of each Session and at the end of both Full Sessions and the Winter Session. Students who make personal arrangements during the examination period do so at their own risk. No special considerations will be given and no special arrangements made in the event of personal commitments. Information regarding dates and times of examinations will be given by telephone. Students are responsible for reading the timetable carefully and appearing at the time specified. Students taking courses during the day may be required to write evening examinations and students taking evening courses may be required to write day examinations. Students may also be required to write Saturday term tests or examinations.

Examination timetable conflicts
Students scheduled to write two examinations at the same time should report their conflicts to the Assistant Registrar (Secretariat and Scheduling) (Room 546A, 416-387-7540). Arrangements will normally be made for students to write both examinations on the same day, with a supervised break. Where the conflicts involve University of Toronto courses, arrangements will normally be made for both examinations to be written at University of Toronto at Scarborough. Requests for such arrangements must be made no later than two full weeks before the commencement of examinations and will not be considered after that time.

Students with three consecutive examinations
Students scheduled to write examinations in three consecutive time slots (these being 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 full 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 253).

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 well in advance of the day of their final examination.

Examination room regulations
1. All students are advised to read the section of this Calendar titled Code of Behaviour on Academic Matters.
2. Students are advised to arrive at the examination room at least fifteen minutes before the scheduled examination time. Invigilators will begin the actual examination at the scheduled time.
3. No persons shall be allowed in an examination room during an examination except the students writing the examination and those supervising it. Invigilators shall bring their photo identification cards and place them in a conspicuous place on their desks. (Students registered in other Faculties or Colleges of the University shall bring their student cards.)
4. Bags and books are to be deposited in areas designated by the invigilator and are not to be taken to the examination desk or table. Students may dispose of their purses by placing them, closed, on the floor underneath their chairs.
5. The invigilator has the authority to assign seats to candidates.
6. No materials shall be brought into the examination room or used during the examination except those permitted by the Chief Proctor or Examiner.
7. Candidates shall not communicate with one another in any manner whatever while the examinations are proceeding.
8. Candidates bringing any unauthorized material into an examination room or who assist, or obtain assistance from other candidates or from an unauthorized source, are liable to be refused permission to write the remaining part of the examination or any subsequent examinations. Such candidates are also liable to the penalties provided in the Code of Behaviour on Academic Matters.
9. Candidates shall not be permitted to leave the examination room except under supervision until at least half an hour after the examination has commenced.
10. Candidates shall not leave the examination room within the final ten minutes of an examination, during which time they shall remain quietly seated at their desks.

11. At the conclusion of an examination all written work within the answer books shall cease. The invigilator may refuse to accept the paper of candidates who fail to observe this requirement.
12. Examination books and other material issued for the examination shall not be removed from the examination room without the authority of the invigilator.
13. 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 extensions 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. Students may find themselves in a situation not frequently by the College regulations or facts that they have been unexpectedly 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 procedures for courses taken on other campuses may differ from those outlined below. See the Calendar of the Faculty of Arts & Science for regulations regarding their 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:
   a. you are unable to write a term test, or
   b. your performance on a test is adversely affected by illness or other extenuating circumstances, or
   c. 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 or session 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 JD Below). If your petition is granted, you will be given a deadline by which to complete the work.

B. Final examinations

1. If illness or other extenuating circumstances prevent you from writing a final examination, you may request special consideration by means of a petition (see JD 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 you from writing an examination, you are required to attempt it. If, after receiving your final grade, you feel that your performance on the exam was adversely affected, you may petition to rewrite it (see JD Below). Please note that the petition must be submitted to you only at the end of the Summer Session and the end of the Winter Session. However, final grades are available through ROUSH’s Late and Re-Copy’s Page as follows:
   - for first term (May – June) Summer courses, mid-June
   - for two-term (May – August) courses, mid-June
   - for late August courses, late August
   - for fall (September – December) courses, mid-January

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:
   a. exams deferred from April and May are held in the August examination period
   b. exams deferred from June and August are held in the December examination period
   c. exams deferred from December are held at the end of the Winter 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.

8. If you miss a deferred exam, you may petition for an extension of time to write it; normally no other form of special consideration will be granted. Permission will be granted only under exceptional circumstances and when supported by strong documentation. A petition for an extension at a time to sit a deferred examination will be considered only once.

9. Under truly exceptional circumstances, students who will unavoidably be outside the Toronto area during the special examination period may petition for permission to write at an outside centre. The request must detail the reasons for the request and must be submitted at least three weeks prior to the beginning of the deferred examination period. Such requests cannot be accommodated.

A non-refundable fee of $100.00 for each examination to be written at an outside centre is charged in addition to the regular deferred examination fee of $200.00. Students who are given permission to write at an outside centre are responsible for all costs of transportation, counter charges and other related expenses. Since these may exceed $100.00 per examination, students are advised to assess the total costs before petitioning.

C. Marks and Grades

1. Checking Mark: Term Work
   a. 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
   a. Within six months of the relevant examination period you may obtain a photocopy of your final exam from the Registrar’s Office. A non-refundable fee is charged.

3. Checking Mark: Final Examinations
   a. If you think there is an error in the calculation of your final grade, write of the relevant examination period you may request a recheck of the calculation through the Registrar’s Office or a form provided for this purpose. (It is not necessary to purchase a copy of your exam to make this request.) A fee is charged if an error is discovered which results in a change of the final letter grade. This fee is not refundable.

B. Violations of the Grading Practices Policy
   a. If you think an instructor has violated the Grading Practices Policy, discuss your complaint with the instructor. If the violation relates to the announced schedule of assignments or the marking scheme, you must do this no later than the fourth week of classes. If it relates to changes in or divergence from the announced marking scheme, you must do this before the end of the final examination period.

D. Petitions
   a. 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 obtaining the necessary information with which to accomplish this exception. If necessary, you may contact your instructor or a Division offering a course.

If, after obtaining a copy of a final examination, you wish to request that it be rewritten, you may submit a petition for re-reading (see JD Below). You must do this within six months of the relevant examination period.

When authorized, the re-reading is arranged by the Division offering the course, which also authorizes any change in grade. Normally the re-reading is done by the course instructor, unless you make a convincing argument that the work be re-read by another faculty member. Claims of prejudice must be supported in detail and whenever possible confirmed by a third party. Whenever a grade is changed, the amended grade will stand whether it is higher or lower.

E. Grading Practices Policy
   a. If you think an instructor has violated the Grading Practices Policy, discuss your complaint with the instructor. If the violation relates to the announced schedule of assignments or the marking scheme, you must do this no later than the fourth week of classes. If it relates to changes in or divergence from the announced marking scheme, you must do this before the end of the final examination period.

F. Petitions
   a. If you think an instructor has violated the Grading Practices Policy, discuss your complaint with the instructor. If the violation relates to the announced schedule of assignments or the marking scheme, you must do this no later than the fourth week of classes. If it relates to changes in or divergence from the announced marking scheme, you must do this before the end of the final examination period.

G. Petitions
   a. 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 JD Below). If your petition is granted because a violation is discovered after the last day, you will be credited with a zero grade on your record of registration in the course as well as on your transcript.

D. Petitions
   a. 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 obtaining the necessary information with which to accomplish this exception. If necessary, you may contact your instructor or a Division offering a course.
Where a petition is justified, it must be filed by the appropriate deadline (See 8.6.4 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 disciplinary representative. If serious personal problems are involved, you should try to meet with an academic advisor in Registrar’s Services or a personal counselor in the Health and Wellness Centre. Do not let this recommendation interfere with your submitting your petition by the deadline.

3. Submit whatever documentation is necessary to support your request.
   (a) Medical certificates must show:
      • that you were examined at the time of illness;
      • the degree of disability involved and 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 grounds documented in your petition.

4. Petitions for re-reading of final examinations and of term work returned to you after the end of the term and the instructor has submitted grades for the course will be granted only if you articulate clear grounds for reconsideration, addressing the substance of the instructor’s decision in the mark given to you or otherwise identifying the nature of the alleged misvaluation;

5. You will be notified in writing of the decision on your petition. The petitions office attempts to respond as quickly as possible, normally within three weeks of submission. Please do not inquire about the progress of your petition within that period. Complex cases and petitions submitted during very busy periods may take longer.

6. If your petition is granted, the following will be recorded on your transcript (academic record):
   • withdrawal from courses after the published deadline (WDR)
   • deferral of suspension ("suspension deferred")
   • award of negative standing (ABG).

In cases of ease on the part of the University, including violations of the Grading Practices Policy, withdrawal from courses is not recorded on the transcript.

D. Deadlines

The deadlines below apply to the University of Toronto at Scarborough. Deadlines and policies for courses taken at other University of Toronto campuses may vary; see the appropriate Faculty Calendar.

1. Term Work
   • requests for special consideration on term assignments and term work must be submitted to the instructor: last day of classes
   • petitions to admit term assignments or write make-up term tests after the last day to submit term work (see the Calendar): last day of the examination period

2. Final Examinations
   Summer and Fall & Winter Sessions
   • petitions to write deferred examinations: last day of the examination period
   Summer Session
   • petitions to rewrite final examinations in May and June: courses: June 30
   • petitions to rewrite final examinations in May-Aug., and July-Aug.: courses: September 30

3. Missed Deferred Examinations
   • petitions to write a deferred examination which has been missed: last day of the relevant examination period

4. Errors in Course Registration or Withdrawal From Courses
   • petitions to correct errors in course registration or to withdraw from courses without academic penalty after the published deadline should be submitted as early as possible but no later than: June 30 (Fall & Winter Session courses).
   September 30 Summer Session courses.

5. Chaptering of Marks and Appeal of Grades
   • requests for checking of marks on term tests, essays and other term work made to the instructor of a course: last day of classes
   • petitions for reconsideration of term work returned to you after the end of term: six months after the relevant examination period
   • requests for a photocopy of a final examination: six months after the relevant examination period
   • requests for recalculations of marks through the Registrar’s Office: 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 appeals must be commenced no later than six months after the decision being appealed has been communicated to you in writing. An appeal is commenced by filing a Notice of Appeal on the form provided for this purpose at the Office of the Associate Dean, room 5-414A (telephone 368-5754). Full information may be obtained from that office.

2. You may appeal a decision of the Sub-committee on Academic Appeals to the Academic Appeals Committee of the Governing Council. Such appeals must be commenced no later than thirty days after the decision being appealed had 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 100, Simcoe Hall St. George Campus (telephone 416-978-8794)

Code of behaviour on academic matters

A. Premable

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 that the University fulfills an essential part of its traditional mandate from society, and, indeed, from history; to be an expression of, and by so doing to encourage, a habit of mind which is discriminating at the same time it remains curious, which it is at once equitable and audacious, valuing openness, honesty and courtesy before any private interests.

This mandate is more than a mere pious hope. It represents a condition necessary for the very existence, which is the University’s life blood. Its fulfillment depends upon the will being of that relationship whose parties define one another’s roles as teacher and student, based upon differences in expertise, knowledge and experience, through bound by respect, by a common passion for truth and by mutual responsibility to those principles and ideals that continue to characterize the University.

This Code is concerned, then, with the responsibilities of faculty members and students, not as they belong to...
Code of Behaviour on Academic Matters

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1. **Administrative or professional or social groups, but as they co-operate in all phases of the teaching and learning relationship.**

2. Such co-operation is threatened when teacher or student forswears respect for the other and for others involved in learning in favour of self-assertion, when truth becomes a hostage of expediency. On behalf of teachers and students in fulfillment of its own principles and ideals, the University has a responsibility to ensure that academic achievement is not obstructed 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 thwart the educational process. These are areas in which teacher and student necessarily share a common interest as well as common responsibilities.

3. **B. Offences**

4. The University and its members have a responsibility to ensure that a climate which might encourage or conditions which might stifle, erode, misrepresent or undermine is not tolerated. To this end all must acknowledge that seeking credit or other advantages by fraud or misrepresentation, or seeking to disadvantage others by disruptive behavior is unacceptable, as is any dishonour or unfairness in dealing with the work or record of a student.

5. Wherever in this Code an offence is described as depending on "knowing," the offence shall likewise be deemed to have been committed if the person ought reasonably to have known.

6. 1. **It shall be an offence for a student knowing:**

7. (a) to forge or in any other way alter or falsify any document or evidence required by the University, or to utter, circulate or make available or possess any such forged, altered or falsified document, whether the record be in the form of a written or electronic document;

8. (b) to use or possess an unauthorised aid or service or obtain pre-exam notice or provide pre-exam notice in any other form of academic work;

9. (c) to personate another person, or to have another person personate, in any academic examination or term test or in connection with any other form of academic work;

10. (d) to represent as one's own any idea or expression of an idea or work of another in any academic examination or term test or in connection with any other form of academic work, i.e., to commit plagiarism;

11. (e) "plagiarism." The present sense of plagiarism is contained in the original (1633) meaning in English, "the wrongful appropriation and publishing, and publication in one's own name, of the ideas, or the expression of the ideas, of another." This most common, and frequently most elusive of academic infractions is normally associated with student essays. Plagiarism can, however, also threaten the integrity of studio and seminar room, laboratory and lecture hall. Plagiarism is at once a perversion of originality and a denial of the interdependence and mutuality which are the heart of scholarship itself, and hence of the academic experience. Instructors should make clear what constitutes plagiarism within a particular discipline.

12. (c) to submit, without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or in being sought in another course or programme of study in the University or elsewhere;

13. (d) to submit any academic work containing a partial statement of fact or reference to a source which has been used without proper acknowledgment;

14. 2. **It shall be an offence for a faculty member knowing:**

15. (a) to approve any of the previously described offences;

16. (b) to evaluate an application for admission or transfer to a course or program of study by reference to any criterion that is not academically justifiable;

17. (c) to evaluate academic work by any criterion that does not relate to its merit, to the time within which it is to be submitted or to the manner in which it is presented;

18. (b) to engage in any form of cheating, academic dishonesty or misconduct, fraud or misrepresentation not herein otherwise described, in order to obtain academic credit or other academic advantage of any kind.

19. 4. A graduate of the University may be charged with any of the above offences committed knowingly while he or she was active student, when, in the opinion of the Provost, the offence, if detected, would have resulted in a sanction sufficiently severe that the degree would not have been granted at the time that it was.

20. B. 2. **Parties to Offences**

21. (a) Every member is a party to an offence under this Code who knowingly:

22. (i) actually commits it;

23. (ii) does or omits to do anything for the purpose of aiding or assisting another member to commit the offence;

24. (iii) does or omits to do anything for the purpose of aiding or assisting any other person who, if that person were a member, would have committed the offence;

25. (iv) abets, counsels, procures or causes another member to commit or to be a party to an offence;

26. (v) abets, counsels, procures or causes any other person who, if that person were a member, would have committed the offence to be a party to the offence.

27. (b) Every party to an offence under this Code is liable upon admission of the commission thereof, or upon conviction, as the case may be, to the sanctions applicable to that offence.

28. 2. **Every member who, having an interest to commit an offence under this Code, does or omits to do anything for the purpose of carrying out that intention (other than mere preparation to commit the offence) is guilty of an attempt to commit the offence and is liable upon conviction to the same sanctions as if he or she had committed the offence.

29. 3. When a group is found guilty of an offence under this Code, every officer, director or agent of the group, being a member of the University, who directed, authorized or participated in the commission of the offence is a party to and guilty of the offence and is liable upon conviction to the sanctions provided for the offence.

30. C. **Procedures in cases involving students**

31. At both the divisional level and the level of the University Tribunal, the procedures for handling charges of academic offences involving students reflect the gravity with which the University views such offences. At the same time, these procedures and those which ensure students the right of appeal represent the University's commitment to fairness and the cause of justice.

32. C.II(:) Divisional Procedures

33. NOTE: When a student commits an offence, the faculty to which the student is registered has responsibility over the student in the matter. In the case of Scarborough and Etobicoke Colleges, the college is deemed to be the faculty.

34. 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.I. (3).

35. 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 the student says in such a discussion may be used as evidence against the student.

36. 3. If after such discussion, the instructor is satisfied that no academic offence has been committed, he or she shall so inform the student and no further action shall be taken in the matter by the instructor, unless fresh evidence comes to the attention of the instructor, in which case he or she may again proceed in accordance with subsection 2.
4. If after such discussion, the instructor believes that an academic offense has been committed by the student, or if the student fails to respond to the invitation for discussion, the instructor shall make a report of the matter to the department chair or through the department chair to the dean [Associate Dean]. See also Section C.I. (b) [1].

5. When the dean [Associate 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 [Associate Dean] being informed, the chair of the department and the instructor shall be invited by the dean [Associate Dean] to be present at the meeting with the student. The dean [Associate Dean] shall conduct the interview.

6. Before proceeding with the meeting, the dean [Associate Dean] shall inform the student that he or she is entitled to such advice, or be accompanied by counsel at the meeting, before making, and is not entitled to make, any statement or admission, but shall warn him that 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 the student, or in the case of the dean [Associate Dean] hearing, in the hearing with respect to the alleged offense in question. The dean [Associate Dean] shall also advise the student, without further consent or discussion of the sanctions that may be imposed under Section C.I. (b) and that the dean [Associate Dean] is not obliged to impose a sanction or a hearing with respect to the alleged offense. The dean [Associate Dean] shall not be required to inquire into the conduct of the student, or to the evidence against the student in any such hearing.

7. If the dean [Associate 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 offense 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 offense.

8. If the student admits the alleged offense, the dean [Associate Dean] or the department chair may either impose the sanctions that he or she considers appropriate under Section C.I. (b) or refer the matter to the dean [Associate 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 [Associate Dean] if the dean [Associate Dean] imposes a sanction.

9. If the student is dissatisfied with a sanction imposed by the department chair or the dean [Associate Dean], as the case may be, the student may appeal to the master to the dean [Associate Dean] or Provost, as the case may be, for consideration.

10. If the student does not admit the alleged offense, the dean [Associate Dean] may, after consultation with the instructor and the department chair, request that the Provost lay a charge against the student. If the Provost agrees to lay a charge against the student, the matter shall then proceed to the Third Division of the Tribunal.

11. Normally, disciplinary procedures will not be examined in a hearing before the Tribunal. A failure to carry out the procedures referred to in this Section, or any defect or irregularity in such procedures, shall not vitiate any subsequent proceedings of or before the Tribunal, unless the chair of the hearing considers that the failure, defect or irregularity resulted in a substantial unfairness, detriment or prejudice to the accused. The chair will determine at the opening of the hearing whether there is 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 the student be allowed to withdraw from a course from the time of the alleged offense 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 [Associate Dean] to bar him or her from a faculty. When or at any time after an accusation has been reported to the dean [Associate Dean], he or she may cause a notation to be recorded on the student's academic record and transcript, until the final disposition of the accusation, to indicate that the standing in a course and/or the student's academic status is under review. A student upon whom a sanction has been imposed by the dean [Associate Dean] or the department chair under Section C.I. (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.I. (a) and of the sanctions imposed shall be kept in the academic unit concerned and may be referred to by the dean [Associate Dean] in connection with a decision to prosecute or by the prosecution in making representations as to the sanction or sanctions to be imposed by the Tribunal. A record of cases shall be reported by the dean [Associate Dean] to the Secretary of the Tribunal for use in the Provost's annual report to the Academic Board. The dean [Associate Dean] may contact the Secretary of the Tribunal for advice or for information on cases disposed of under Section C.I. (b) herein.

14. Where a provost or instructor, who is not a faculty member, has reason to believe that an academic offense has been committed by a student at an examination or test, the provost or instructor shall inform the student's dean [Associate 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 offenses not covered by the above procedures and not involving the submission of academic work, such as those concerning surgery or staining, in cases involving cancellations, morbidity 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.I. (b) Divisional Sanctions

1. In an assignment worth 10 percent or less of the final grade, the department chair shall deal with the matter if:
(i) the student admits guilt; and
(ii) the assignment of a penalty is limited to at most a mark of zero for the piece of work.

If the student does not admit guilt, or if the department chair chooses, the matter shall be brought before the dean [Associate Dean].

2. One or more of the following sanctions may be imposed by the dean [Associate Dean] where a student admits to the commission of an alleged offense:
(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 offense was committed, for evaluation. Such a sanction shall be imposed only for minor offenses and where the student has committed no previous offenses;
(c) the assignment of a grade of zero or failure for the piece of academic work in respect of which the offense was committed;
(d) denial of privileges to use any facility of the University, including library and computer facilities.

(e) a monetary fine to cover the costs of repair or replacement of damaged property or uninsured supplies in respect of which the offense was committed;
(f) assignment of a grade of zero or failure for the course in respect of which the offense was committed;
(g) 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 [Associate 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 sanctions of suspension or a notation specifying academic misconduct as the reason for a grade of zero for a course shall normally be recorded for a period of five years.

4. The Provost shall, from time to time, indicate appropriate sanctions for certain offences. These guidelines shall be sent for information to the Academic Board and attached to the Code as Appendix "C".

C.R. (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, for evaluation. Such a sanction shall be imposed only for minor offenses and where the student has committed no previous offenses;
(c) assignment of a grade of zero or a failure for the piece of academic work in respect of which the offense was committed;
(d) assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offense was committed;
(e) denial of privileges to use any facility of the University, including library and computer facilities;
(f) a monetary fine to cover the costs of replacing damaged property or missing supplies in respect of which the offense 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 offense was committed;
(h) suspension from attendance in a course or courses, a program, an academic unit or division, or the University for such a period of time as may be determined by the Tribunal. Where a student has not completed a course or courses in respect of which an offense 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 such sanctions permanently. Where a student has not completed a course or courses in respect of which an offense has not been committed, withdrawal from the course or courses without academic penalty shall be allowed. If the recommendation for expulsion is not adopted, the Governing Council shall have the power to impose such lesser penalty as it sees fit.

(i) recommendation to the Governing Council for cancellation, recall or suspension of one or more degrees, diplomas or certificates obtained by any graduate;
(j) cancellation of academic standing or academic credits obtained by any former student who, while enrolled, committed any offense which, if committed before the granting of the degree, diploma, certificate, standing or credits would, in the judgment of the Tribunal, have resulted in a conviction and the application of a sanction sufficiently severe that the degree, diploma, certificate, standing, credits or marks would not have been granted.

2. The hearing panel shall have the power to order any sanction imposed by the Tribunal to 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, make any case to the President who may either a) give notice of the decision of the Tribunal and the sanction or sanctions to the University's 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 teaching, research, learning and other activities. Student members of the University are adherents to a division of the University for the period of their registration in the academic program to which they have been admitted and as such assume the responsibilities which such registration entails.

2. As an academic community, the University governs the activities of its members by standards such as those contained in the Code of Behaviour on Academic Matters, which provides definitions of offenses that may be committed by students and which are deemed to affect the academic integrity of the University's activities.

3. The University sponsors, encourages or tolerates many non-academic activities of its members, both on its campuses and away from them. These activities, although generally separate from the defined requirements of students' academic programs, are a valuable and integral part of the life of the University and of its students.

4. The University does not stand as an fortress to its students; 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 interactions 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 of the University, and the rights of the University to participate reasonably in the programs of the University and in activities in or on the University’s premises. Strict regulation of such activities by the University of Toronto is otherwise neither necessary nor appropriate.

5. Student members are not, as such, immune from the criminal and civil laws of the wider political system to which they belong. Provisions for non-academic discipline should not attempt to shelter students from their civic responsibilities nor shield unnecessarily these responsibilities. Conduct that constitutes a breach of the Criminal Code or other statute, or that would give rise to a civil claim or action, should ordinarily be dealt with by the appropriate criminal or civil court. In cases, however, in which criminal or civil proceedings have not been taken or would not adequately protect the University's interests and responsibilities as defined below, proceedings may be brought under a discipline code of the University, but only in cases where such internal proceedings are appropriate in the circumstances.

6. The University must define standards of student behaviour and make provisions for student discipline with respect to conduct that jeopardizes the good order and proper functioning of the academic and non-academic programs and activities of the University or its divisions, that endangers the health, safety, rights or property of its members or visitors, or that adversely affects the property of the University or bodies related to it, whose conduct it is for, the University's delinquents, and is exclusively regulated by civil and criminal law.

7. Nothing in this Code shall be construed to prohibit peaceful assemblies and demonstrations, lawful picketing, or to stamp on freedom of speech as defined in the University.

8. In this Code, the word "person" includes lands, buildings and grounds.

9. In this Code, "the University" means a member of the University

i) student who has completed any academic work which leads to the recording and/or issue of a diploma, grade or statement of performance by the appropriate authority in the University or another institution; and/or

ii) instructor or student of the University who has completed any academic work which entails the member of the University to use University library, library materials, library resources, computer facilities or data set, and/or

iii) who is a post-doctoral fellow.
1. Offences against persons
   a) No person shall assault another person physically or otherwise.
   b) No person shall otherwise attempt to 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 conditions that unreasonably endanger the health or safety of others.
   d) No person shall threaten any other person with damage to his or her property, or knowingly cause any other person to fear damage to his or her property.
   e) No person shall engage in a course of vexatious conduct
      - that is directed at one or more specific individuals, and
      - that is based on the race, ancestry, place of origin, colour, ethinc origin, citizenship, creed, age, marital status, family status, handicap, receipt of public assistance or record of offences of that individual or those individuals, and
      - that is known to be unwanted, and
      - that exceeds the bounds of freedom of expression or academic freedom as those are understood in University policies and accepted practices, including but not limited to those explicitly adopted.

   Note: This section is not to be understood as it is designed or intended to infringe on any Human Rights.

   f) No person shall, by engaging in conduct described in subsection (b) below, whether on the premises of the University or away from the premises of the University,
      - cause any other person or persons to fear for their safety or for the safety of another person known to them while on the premises of the University or in the course of activities sponsored by the University of Toronto or by any of its divisions, or
      - cause another person or persons to be impeded in exercising the freedom to participate reasonably in the programs of the University and in activities in or on the University's premises,

   - knowing that their conduct will cause such fear, or recklessly as to whether their conduct causes such fear.

   ii) The conduct mentioned in subsection (b) consists of
      (a) repeatedly following from place to place the other person or anyone known to them;
      (b) repeatedly and persistently communicating with, either directly or indirectly, the other person or anyone known to them;
      (c) breaking or repeatedly watching the dwelling, house, or place where the other person, or anyone known to them, resides, works, carries on business or happens to be;
      (d) engaging in threatening conduct directed at the other person or any member of the family, friends or colleagues of the other person.

2. Disruption
   No person shall cause by action, deceit or otherwise, a disturbance that the member knows or should know obstructs any activity organized by the University of Toronto or by any of its divisions, or the right of any other member or members to carry on their legitimate activities, to speak or to associate with others.

   For example, peaceful picketing or other activity outside a class or meeting that does not substantially interfere with the communication inside, or impede access to the meeting by an acceptable expression of dissent. And silent or symbolic protest not be considered disruption under this Code, but that obstruct the conduct of a meeting or forcible blocking of access to an activity estimated disruption.

3. Offences involving property
   a) No person shall knowingly take, destroy or damage premises of the University of Toronto.
   b) No person shall knowingly take, destroy or damage any physical property that is not his own.
   c) No person shall knowingly destroy or damage intangible or intellectual property belonging to the University of Toronto or to any of its members.

   d) No person, in any manner whatsoever, shall knowingly deface the inside or outside of any building of the University of Toronto.

   e) No person, knowing the effects or property to have been appropriated without authorization, shall possess effects or property of the University of Toronto.

   f) No person, knowing the effects or property to have been appropriated without authorization, shall possess any property that is not his or her own.

   g) No person shall knowingly create a condition that unreasonably endangers or threatens destruction of the property of the University of Toronto or of any of its members.

4. Unauthorized entry or presence
   No person shall, contrary to the expressed instruction of a person or a person authorized to give such instruction, or with intent to damage or destroy the premises of the University of Toronto or damage, destroy or use any property on the premises of the University of Toronto that is not his or her own, or without just cause knowingly enter or remain in or on any such premises.

5. Unauthorized use of University facilities, equipment or services
   a) No person shall knowingly use any facility, equipment or service of the University of Toronto contrary to the expressed instruction of a person or a person authorized to give such instruction, or without just cause.

   b) No person shall knowingly gain access to or use any University computing or internal or external communications facility to which legitimate authorization has not been granted. No person shall use any such facility for any commercial, disruptive or other purpose.

   Appropriate uses for University computing and communications services are, for example, in the policy document "Computer Use Policy for the Other Network."

   c) No person shall knowingly misuse, misplace, misuse, or render inaccessible any stored information such as books, film, data files of programs from a library, computer or other information storage, processing or retrieval system.
6. False charges
No person shall knowingly or maliciously bring a false charge against any member of the University of Toronto under this Code.

7. Aiding in the commission of an offence
No person shall counsel, procure, conspire with or aid a person in the commission of an offence defined in this Code.

8. Refusal to comply with sanctions
No person found to have committed an offence under this Code shall refuse to comply with a sanction or sanction imposed under the procedures of this Code.

9. Unauthorized possession or use of firearms or ammunition
No person other than a peace officer or a member of the Canadian Forces acting in the course of duty shall possess or use any firearm or ammunition on the premises of the University of Toronto without the permission of the officer of the University having authority to grant such permission.

NOTE: The President of the University or another senior officer designated by the President has been given the authority to grant such permission for the premises of the University of Toronto under the authority of the Governing Council of the University. The President has designated the Vice-President, 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 director (hereinafter called “head”) of each faculty, college or school in which students are registered; (hereinafter called “division”); after consultation with the elected student leaders or leaders of the student group, to investigate complaints made against student members of the division. Investigating Officers shall hold office until their successors are appointed.

3. A Hearing Officer, who may be a student, shall be appointed for a term of up to three years by the council of each division to decide on complaints under this Code made against student members of that division. Hearing Officers shall hold office until their successors are appointed.

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. The head of the division has the authority to determine that a hearing is not necessary or that a non-academic issue has been resolved. The decision of the division shall be final.

6. The hearing will be chaired by the Hearing Officer. The case will be presented to 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. The accused student or students may be assisted and represented by another person, who may be legal counsel.

7. Appeals against decisions of bodies acting under authority from the council of a division to hear cases arising out of residence codes of behaviour may be made to the Hearing Officer of the division, where provision therefor has been made by the council of the division.

8. Appeals against the decision of the Hearing Officer may be made to the Discipline Committee of the University Council.

9. Where the head of a division has reason to believe that a non-academic offence may have been committed by a group of students including students from that division and from another division or divisions, the head may consult with the head of the other division or divisions involved and may then 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.

1. A formal written reprimand
2. Order for restitution, rectification or the payment of damages
3. A fine or for good behaviour not to exceed $100
4. Requirement of public service work not to exceed 25 hours
5. Denial of access to specified services, activities or facilities of the University for a period of up to one year

The following two sanctions, which would directly affect a student’s registration in a program, may be imposed only where it has been determined that the offence committed is of such a serious character 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.

1. Suspension from registration in any course or program of a division or divisions for a period of up to one year
2. Recommendation for expulsion from the University
Physical Sciences Scarborough

Physical and Mathematical Sciences Speciality Programme...

Physics

Psychology

Psychology Minor Programme

Public Relations Program

Psychology and Economics for Management Studies Specialist Programme

Psychology, Course...

Protection

Programme Listings

Programme Requirements

Psychology Major Programme

Psychology Minor Programme

Psychology Specialist Programme

- R -

Record, Access to Student...

Re-Enrolment

Regulations, Academic

Requirements, Degree

Residences

ROSI

- S -

Satisfaction

Scholarships

Sociology

Sociology Major Programme

Sociology Minor Programme

Sociology Specialist Programme

Spanish

Special Consideration

Special Services, Disabled

Special Students

Standing...

- T -

Telephone Directory

Term Work

Checking of Marks in a course

Special Consideration in a course

Pettition of Marks in a course

Transcripts, Academic

- U -

University Ombudsperson

- V -

Visiting Students

Visual and Performing Arts

Visual and Performing Arts Specialist Program

- W -

Web Services

Withdrawal

from Course

Yearbook

Women’s Studies Major Programme

Women’s Studies Minor Programme

Women’s Studies Ombudsperson

- Z -

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**Student Telephone and Web Services**

ROSI's Line (416-823-ROSI)

ROSI's Page (www.utoronto.ca/
University of Toronto at Scarborough students may use
ROSI's Line and ROSI's Page to:
- add and drop courses
- add and change section meetings
- check the status of their course requests
- list courses on their record
- check to see if there is still room in a course
- add and drop Specialist, Major and Minor Programs
- access grades, GPA's and academic status
- display their academic record (ROSI's Page only)
- print a transcript (ROSI's Page only)
- confirm intention to graduate
- change their FIN
- change address and telephone numbers (ROSI's Page only)
- change next of kin and emergency contact information (ROSI's Page only)
- view other personal information (ROSI's Page only)
- access their fees account (ROSI's Page only)
- list their ROSI's Line and ROSI's Page transactions
- (ROSI's Page only)
- avoid lines

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**ROSI**

University of Toronto

Repository of Student Information