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 lawn — 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

1997/98

1265 Military Trail, Scarborough, Ontario, Canada, M1C 1A4
University of Toronto at Scarborough: Past and Present

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

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

1973 saw the opening of the R-wing (with classrooms, office space, a gymnasium, and other sports facilities) and the Student Village, a complex of townhouse residences with room for 250 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 536 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 200,000 books and periodicals, thousands of maps, and a media centre with recordings and fine art slides. Blades Library, in conjunction with the College's Computer Centre, has also become one of the leaders at the University of Toronto in the use of electronic resources. The Soil Erosion Research Laboratory opened in 1989, the 9 1/2 bedroom Child Care Centre in 1990, and the Leitha Lee Dance 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 programmes in the University. Currently, Co-operative Programmes are offered in the following areas: Arts Administration; Computer Science and Physical Sciences; Environmental Science; International Development Studies; Management and Management & Economics. In addition, both the Physical Sciences Specialist programmes and the Education of Teachers in French Specialist Programme offer an Early Teacher Project component, in cooperation with the Ontario Institute for Studies in Education/University of Toronto. Successful completion of the Early Teacher Project together with the required academic standing will guarantee admission, on application to the Ontario Institute for Studies in Education/University of Toronto, for at least thirty students a year.

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

Scarborough students have full and up-to-date resources available on campus as full members of the University of Toronto. They also have access to all University-wide resources as well as a whole. On the Scarborough Campus, regular events include concerts, drama productions, and a literary reading series. The Student Press and the prestigious Watts lectures have brought such distinguished speakers as Nobel Prize winner and former Prime Minister Lester Pearson, philosopher Raymond Maritain, philosophers and theologian Hans Kung, and television personality David Suzuki, union leader Bob White, Assembly of First Nations chief George Eremin, and Israel's Ambassador to Canada Itzhak Shilef, co-lecturing with Abdullah Abdullah, P.NO. Ambassador to Greece.
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Important Notices

1 Changes in 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, damage, or other expenses that such changes might cause.

2 Changes in Courses
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 Changes in Regulations and Policies
The University has several policies that are approved by the Governing Council and which apply to all students. Each student must become familiar with the policies. The University will assume that he or she has done so. The rules and regulations of the Faculty (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 strive to maintain a balance between enrolment and available instructional resources. Sometimes such a balance cannot be struck and the number of qualified students exceeds the instructional resources that we can reasonably make available while at the same time maintaining the quality of instruction. In such cases, we must reserve the right to limit enrolment in the programmes, courses, or sections listed in the Calendar, and to withdraw courses or sections for which enrolment or resources are insufficient.

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

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

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

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

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

10 ACADEMIC OFFENCES ARE A SERIOUS MATTER. See page 250.

11 University of Toronto at Scarborough has a fire safety plan. Copies are available from Physical Plant Services (S303).

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

The Campus Map was drawn by Azaz Mahranie, a former University of Toronto at Scarborough student in Geography.
March 15  Last day for new students to apply for admission to the University for the Summer Session for courses beginning in May ("Y", "A", "F", & "H" courses).
March 27  Summer Session registration through the Student Telephone Service begins for Scarborough courses only.
March 28  Good Friday. University closed.
March 31  Summer Session registration through the Student Telephone Service begins for St. George & Etobicoke courses.
May 9  Deadline to register in "A", "F", "E", & "H" courses. After this date, a late fee is imposed.
May 12  Classes for "Y", "A", "F", & "H" courses begin.
May 15  Last day for new students to apply for admission to the University for the Summer Sessions for courses beginning in July ("F" & "S" courses).
June 6  Last day to add "Y", "A", "F", or "H" courses.
June 27  Victoria Day. University closed.
June 30-July 4  Reading Week for "F" & "S" courses.
July 2  Classes for "F" & "S" courses begin.
July 6  Last day to add "B" or "S" courses.
July 11  Last day to withdraw without academic penalty from "Y" or "I" courses.
July 18  Last day to request confirmation of degree at the Fall Convocation.
July 25  Last day to withdraw without academic penalty from "B" or "S" courses.
August 4  Civic holiday. University closed.
August 11-August 15  Deferred examinations from May 9-June 13, 1997.*
August 15  Last day of classes in "F", "E", "S" & "H" courses. Last day for submission of term assignments. Final examinations, if required, will be held in a class period of the last week.
November 14  Christmas Examination Schedule published.
December 10-December 19  Deferred examinations from June and August, 1997.*

* For dates on other campuses, see the appropriate Calendar.

Use the Student Telephone Service
(416) 873-8238
- request courses
- make course changes
- check whether room is available in a course
- request graduation
- access final grades

Use the WorldWideWeb:
http://www.ssrc.utoronto.ca/
- change your address
- change your P.I.N.
- view your STS transactions

1997

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.

Winter Session registrations (Access requests), Winter session course changes using the Student Telephone Service (STS) begins.
September 1  Classes for "Y", "A", "F" & "H" courses begin.
September 8  Late registration fees imposed as of this date.
September 15  Last day to add "Y", "A", "F" or "H" courses.
October 1  Last day to request confirmation of degree at the June Convocation.
Thanksgiving Day. University closed.

November 1  University closed.芽
November 14  Christmas Examination Schedule published.
December 10 - December 19  Last day of classes in the first term. Last day for submission of term assignments in "F" & "A" courses.

December 24 - January 1  Term test and final examination period. Deferred examinations from June and August, 1997.*
January 5  Classes for "B" & "S" courses begin.
January 16  Last day to add "B" or "S" courses.
February 13  Last day to withdraw without academic penalty from "Y" or "F" courses.

February 16-February 20  Reading Week - no classes held.
March 6  Last day to withdraw without academic penalty from "B" or "S" courses.
March 15  Annual Examination Schedule published.
April 9  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 "Y", "I", "F", or "S" courses.
April 10  Good Friday. University closed.
April 13 - April 16  Deferred examinations from December 1997.*
April 20 - May 6  Final examination period.
June 9  University Spring Convocations are likely to begin.
August 10-August 14  Deferred examinations from April/May 1998.*

* For dates on other campuses, see the appropriate Calendar.
Officers of the University of Toronto 1997/98

President and Chief Executive Officer

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

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

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

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

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

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

Vice-Provost and Assistant Vice-President (Planning & Budget)
D.W. Lang, B.A., M.A., Ph.D.

Vice-Provost
D. MacCammard, B.Sc., Ph.D.

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

Assistant Vice-President, Student Affairs
W.D. Needands, B.A., M.A., M.D., Ph.D.

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

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

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

Vincent W. Bladen
Library

Librarian
J. Crichton Paterson, B.A., M.I.S.

S. Dyne-Corner, B.A. (York), M.I.S.

E. Eider, B.A. (Hon.), M.I.S.

H. Kong, B.A., M.L.S.

L. Le, B.A., M.L.S.

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

P.H. Yamamoto, B.A., M.S.C. in L.S.

Student Services

Counselling Services

Counselling Services is composed of several departments which work together to provide integrated services to students. The Academic Centre helps students to make decisions about their courses and programmes of study, offers seminars and individual counselling on study skills, and arranges special programmes for students to explore professional and graduate school opportunities. The Career Centre provides individual counselling, seminars and workshops on job-searching and career exploration, and posts up-to-date listings of part-time, summer and post-graduate positions. The two centres share a library of educational, career and employment resources. The Financial Aid Centre distributes OSAP and other loans to eligible students. The campus Child Care Centre provides babysitting and child care services for a small fee. Information on all these services is available by calling (416) 287-7550.

Health & Wellness Centre

Hours: Monday - Friday 9:30 a.m. - 5:00 p.m.

Room #: 6304

Telephone #: (416) 287-7065

Health and Wellness Centre provides two types of services:

1) Meals: Staffed by physicians and nurses daily, for the treatment of minor illnesses, first aid, pregnancy tests, annual check-ups, birth control and sexually transmitted diseases.

2) Personal Counselling: A free service for students. This service includes a psychiatrist, a psychologist, a social worker, and a psychotherapist. Each of these counsellors will help with family problems, relationships, crisis counselling, anxiety, depression, stress, self-esteem, sexual abuse, eating disorders.

Student Services

Appointments are recommended and walk-ins are accommodated.

W.S.同hsenian, Child Care Centre

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

You may have to go to classes during the day while you child goes to daycare but, you don't have to be separated from them. Have lunch with your child, read them a story, talk them in for a nap, play with them in between classes or breast feed your infant. W.S.同hsenian (pronounced Wsh-sen-in) at University of Toronto's Scarborough Campus. Child Care Centre your child is just as close as your next lecture hall. Located on the Scarborough campus grounds, W.S.同hsenian is a non-profit centre which has garnered praise for its high standard of excellence in programming, staff and its attentive design layout. The centre is licensed for 54 children of students, staff, faculty and neighbours' families. The centre also has a purchase-of-service agreement with the municipal government to assist households in a low-income circumstance with fees. As there is a very long wait for these subsidies, it is strongly advised to apply well in advance of the time the child care is needed.

Located in a state of the art building which officially opened October 16, 1990, this non-profit centre is managed by a parent/teacher board of directors. The board's philosophy is that a warm, secure, and loving environment be provided. Children are often stressed, and the centre is designed to foster the development of each child's self-esteem, independence and self-control, while encouraging cooperation, consideration and empathy for others.
The sound of the clock ticks. N'Sheenmen, meaning "My little brother or sister" in the Ojibwe dialect, reminds us all to take good care of our little ones.

Helping to develop people we wish we always were, N'Sheenmen.

For more information about the centre, or to arrange for a visit, please contact the Director, Ms. Kathleen McIlroy at (416) 287-7624.

Student Residences

The Student Villages are located in attractive treeed areas, close to the College buildings. There are 114 townhouses in two villages, accommodating 520 people, with four or six students in each house. There are ten bedrooms in houses which are wheelchair accessible.

The houses are self-contained with study bedrooms, bathroom, kitchen and living/dining room. They are fully furnished, with well equipped kitchens. Different rates apply for sharing in a twin-bedded room, having a single or premium bedroom. Houses are assigned as either all male or all female for new students. Washers and dryers are provided in four laundry rooms. 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, billiard, board games, etc., or simply relax, sit by the fireplace and chat with friends. Cultural, educational and social events are held here and the Villages' administrative offices are in this building.

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

Our mission is to provide "decent housing at reasonable cost, while assisting students to develop personally, especially in the townhouse environment."

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

Please telephone for general enquiries. (416) 287-7365.

Sexual Harassment Education, Counselling and Complaint Office

The University of Toronto does not tolerate any form of sexual harassment and is actively endeavouring to provide an environment free of it. All forms of sexual harassment, from verbal abuse to inappropriate touching to sexual assault, are covered by the University's policy.

The Sexual Harassment Education, Counselling and Complaint Office was established to educate the University community on this issue. The Sexual Harassment Officer also provides counselling to those people who are the object of unwanted sexual attention and to those who are alleged to have sexually harassed someone, as well as implements the formal complaint procedure.

Contacting the Sexual Harassment Officer is not a commitment to file a complaint and at any point a complaint can be dropped.

The services of the Sexual Harassment Office are available to all members of the University. All complaints and requests for information will be kept completely confidential unless the individuals involved approve otherwise. Members of the University of Toronto at Scarborough may arrange an appointment at Scarborough Campus with the Sexual Harassment Officer or may go to the downtown office, whichever is more convenient. For an appointment, information, or to file a complaint, contact the Sexual Harassment Education, Counselling and, Complaint Office, University of Toronto, 455 Spadina Avenue, Suite 302, Toronto, Ontario, MSS 2G7 (telephone (416) 978-3906).

Special Services To Persons With A DISABILITY

Special Services offers liaison with academic and administrative units and offices on campus. The service provides advocacy and support for students with a wide range of hearing or obvious disabilities and health considerations, and incorporates a learning disability division. Facilities include: provision of adaptive devices and equipment; note-taking and alternative exam conditions for those eligible; and personal and career counselling. The objective of the service is to facilitate the inclusion of students with special needs into all aspects of university life. Students are encouraged to discuss their individual needs with a member of the Special Services staff, and all discussions are confidential. Special Services also provides information and resource materials on health conditions and disability-related issues.

Liaison officer is available at the University of Toronto at Scarborough (Voice/TTY) (416) 287-7553. Our office is located in room SS308B. Our e-mail address is: doyle@scar.toronto.ca. We also have a page on the World Wide Web (www.scac.toronto.ca/dept/special).

International Student Centre

At the International Student Centre (ISC) all students can take part in social and cultural programs with an international focus, or just take a break from the pressures of studies. "Interchange", ISC's work or study abroad resource centre, provides information and counselling on overseas programs. ISC also offers special services to international students: pre-arrival information (sent with the admission offer), reception service and orientation events, English language program, newsletter and advice on non-academic concerns. Contact: ISC, 33 St. George Street, Toronto, Ontario, MSS 2E3, (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 accountable only to the Governing Council.

For information, advice, or assistance, contact the Office of the University Ombudsperson, University of Toronto, 16 Hart House Circle, Toronto, Ontario MSS 1A1 (Telephone (416) 978-4874).
Certification of completion of Programmes

Students request certification of completion of their Programmes early in their final session of study at the College, at the same time as they request graduation. When Programme requirements are changed, students may elect to satisfy the requirements in force 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 (including no more than two Majors and/or Specialist) 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. Where a student is registered in two Major Programmes with overlapping course requirements, a student may use no 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 courses or fewer. Such substitutions should be discussed with the appropriate supervisor when the student first registers in the overlapping Programmes.

5. Where 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 in 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. Where a student meets the requirements of a Major Programme and subsequently chooses to complete a Specialist Programme, the student may use the courses already accredited in the Major Programme to fulfill the requirements of the Specialist Programme. The student may use the courses already accredited in the Major Programme and the Specialist 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.

7. Supervisors have the authority to deal with special circumstances concerning Programme requirements. They may:
- prescribe additional courses where a student is registered in two Major Programmes that require more than two overlapping courses (see 4 above);
- accredit to Programme requirements, courses taken on other campuses of this University or at other Universities; and
- permit course substitutions or other modifications of Programme requirements when they deem them appropriate. When special circumstances are made, students should ask their supervisor to record them on a programme exceptions form.

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

9. Students intending to enrol in any course on St. George Campus which they intend co-registering towards another Programme should consult with their Programme Supervisor first.

10. Students transferring to the University of Toronto will be required to complete at least half of their credits and half of their programme requirements as University of Toronto 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 courses in the withdrawn programmes at the end of the session in which the programme is withdrawn may still apply...
Economics* - B.A.
English* - B.A.
Environmental Science - B.Sc.
French - B.A.
Geography - B.A.
History* - B.A.
International Development Studies - B.A./B.Sc.
Linguistics - B.A.
Mathematics - B.Sc.
Massey History - B.A.
Neuroscience - B.Sc.
Philosophy - B.A.
Physical Sciences - B.Sc.
Political Science - B.A.
Psychology* - B.Sc.
Sociology - B.A.
Studio - B.A.
Women's Studies - B.A.

Co-operative Programmes - Type of Degree
Arts Administration - B.A.
International Development Studies - B.A./B.Sc.
Computer Science & Physical Science - B.Sc.
Environmental Science - B.Sc.
Management - B.A.
Management & Economics - B.Com.

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

Minor Programmes ** - Type of Degree
Anthropology - B.A.
Art History - B.A.
Biological Sciences - B.Sc.
Classical Studies - B.A.
Drama - B.A.
Economics - B.A.
English - B.A.
French - B.A.
French for Francophone Students - B.A.
Geography - B.A.
History - B.A.
Linguistics - B.A.
Music History - B.A.
Political Science - B.A.
Psychology - B.Sc.
Sociology* - B.A.
Spanish - B.A.

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.Sc., two of the three must be in the sciences.

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

Certificate Programmes

Business

Administration

Specialist (Co-operative) Programme in Administration will be discontinued as of the 1990 session. Students who have already been admitted to this programme are permitted to remain in this programme and are expected to receive one of the new Specialist (Co-operative) Programmes in Measurement and Management & Economics, or continue with the requirements specified in the STW Calendar. Please refer to the Measurement section of the Calendar for information on the Specialist (Co-operative) Programme in Measurement and Management & Economics.

Anthropology

(B.A./B.Sc.)

Faculty List
T.E.S. McFadzean, B.A., M.A. (McGill), Ph.D. (Harvard), FRSC, Professor Emeritus
F. D. Burton, B.Sc., M.A. (NYU), Ph.D. (CUNY), Professor
M. Lambek, B.A. (McGill), M.A., Ph.D. (Michigan), Professor
K.W. Shirley, M.A. (Stanford), Ph.D. (Columbia), Professor
D. Boddy, B.A. (McGill), M.A. (Calgary), Ph.D. (UBC), Associate Professor
G.S. Gillieson, B.A. (McGill), Ph.D. (CUNY), Associate Professor
M. Lattea, B.A. (Kansai), M.A., Ph.D. (Toronto), Associate Professor
L. Sewiduk, B.A., M.A. (Montana), Ph.D. (Toronto), Associate Professor
H.B. Schroeder, B.A. (Penn. State), Ph.D. (Columbia), Associate Professor

Discipline Representative/Supervisor of Students: L. Sewiduk (287-5347)

Anthropology is the study of human beings, dealing with the origin, development and nature of human and their culture. As such it is concerned with human phenomena in the widest possible terms, both biological and cultural. It differs from other social sciences in its comparative and historical approach, and in its intimate links with the physical and natural sciences. Anthropology examines societies today and in the past, both complex civilizations and relatively small-scale pre-agricultural 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 peoples 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 Anthropological Linguistics. At the present time, University of Toronto at Scarborough offers courses in the first three areas. Students interested in acquiring subjects appropriate to science in one of the sub-fields are invited to consult with the faculty of 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 or Major degree are that at least seven of the twelve full course equivalents in Anthropology should be courses with science credit. Most courses in Anthropology and Physical Anthropology, excluding introduction to Anthropology, carry science credit. Consult the Discipline Representative for clarification.

The following courses in Anthropology may be used to fulfill requirements for the B.Sc. degree: ANT301, ANT304, ANT311, ANT312, ANT313, ANT321, ANT325, ANT326, ANT328, ANT340, ANT404, ANT407, ANT330, ANT332, ANT338, ANT339, ANT341, ANT342, ANT343, ANT403, ANT404, ANT415, ANT416, ANT418, ANT516. The following courses may also be used to fulfill the B.Sc. requirements for students registering in appropriate scientific areas of Anthropology: ANT303, ANT304, ANT313, and ANT321.

SPECIALIST PROGRAMME IN ANTHROPOLOGY

The Specialist Programme in Anthropology is intended to provide the professionally oriented student with background preparation of sufficient breadth and depth to pursue specialized training at the graduate level. It is also designed to offer advanced 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 concerning the selection of a course sequence appropriate to their interests and objectives.
ANT101Y1 Introduction to Anthropology
ANT220Y Social and Cultural Anthropology
ANT211F Introduction to World Prehistory 1
ANT212S Introduction to World Prehistory 2

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. ANT101Y Introduction to Anthropology
2. At least one full course from among the following:
   - ANT102Y Biological Anthropology
   - ANT220Y Social and Cultural Anthropology
   - ANT116F Introduction to World Prehistory 1
   - ANT212S Introduction to World Prehistory 2
3. Two additional full-course equivalents in Anthropology, at least one of which must be at the C or D level.

ANT101F African Cultures and Societies 1: Survey
   Telephone: 00702533
   A study of contemporary and traditional African peoples, their cultural backgrounds and historical interrelations. Lectures and readings will provide an overview of African social institutions, religious beliefs and practices, economic organization, colonial and post-colonial experience, and current problems.
   Prerequisite: ANT101Y or permission of instructor.
   Session: Winter Day
   M. Lambek

ANT101F Introduction to World Prehistory 1: Human Behaviour in the Old Stone Age
   Telephone: 00721133
   A study of the development of art, technology, religion and lifeways of humans and hominids living from two million to ten thousand years ago.
   Our intellect, interests, emotions, and basic social existence are in large part evolutionary products of the success of foraging and hunting adaptations during the Paleolithic. Issues to be considered include prehistoric technological innovation and variation, social change and the reconstruction of ancient beliefs and ecological systems.
   Prerequisite: ANT101Y
   Session: Winter Day
   H.B. Schneider

ANT129S Introduction to World Prehistory 2: The Rise of Civilization
   Telephone: 00721125
   An examination of the agricultural and urban transformations which gave rise to modern human societies. This 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.
   Prerequisite: ANT101Y
   Session: Winter Day
   R.B. Schneider

ANT115Y Biological Anthropology
   Telephone: 00721503
   A survey of the human place in nature (origin (Paleo) and ongoing evolution (Evolving). Focus to the course is an understanding of the systematic theory of evolution and the principles, processes, evidence and application of the theory. Laboratory projects acquaint the student with the methods and materials utilized by the Physical Anthropologist. Specific topics include: the development of evolutionary theory, the biological basis for human variation, the evolutionary forces, human adaptability, primate biology, social organization and behavior of non-human primates, taxonomy and classification, palaeontological principles and human origins.
   Exclusion: ANT203
   Prerequisite: ANT101Y or permission of instructor.
   Session: Winter Day
   L. Souchak

ANT220Y Social and Cultural Anthropology
   Telephone: 00722063
   An examination of the major approaches to understanding social and cultural organization in societies.
   Focus is on sample societies, this course explores comprehensive social institutions, including kinship and marriage as well as economic, political and religious institutions. Some attention will 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: ANT204
   Prerequisite: ANT101Y or permission of instructor.
   Session: Winter Day
   R.W. Shirley

ANT220F Human Nature: An Anthropological Inquiry
   Telephone: 00722533
   This course examines a fundamental question in anthropology: is there a "human nature"? Is there an intrinsic template which distinguishes the human species from all others? Are the attributes made to "human nature" adequate depictions of that, or are they convenient theorems for some other purpose? Myths, legends and parables have frequently used animal kia, especially non-human primates, as metaphor and model in which the "atypical" being of humans is derived from the characteristics attributed to other animals. This course investigates this desire to see ourselves reflected in other creatures, exploiting the literature of physical anthropology and related fields which have sought to describe "human nature." Two hours of lecture per week.
   Prerequisite: ANT101Y or permission of instructor.
   Session: Winter Day
   T.R.A.
ANTC3545 Anthropology of Sex
Telephone ID: 00725953
This course is designed to introduce the student to anthropological questions and theories regarding human sexual biology. Major topics to be critically assessed include evidence for the origins and evolution of human sexuality; sex differences among the living primates; the influence of culture on the biology of sex in human populations; prehistoric, historic and contemporary patterns in sexually-transmitted diseases; sociological theories of sex differences.
Prerequisite: ANT101Y & ANT111Y
Session: Winter Day
T.R.A.

ANTC01F The Anthropology of the Body
Telephone ID: 00709133
A comparative consideration of the human body as symbol, metaphor and focus of practical knowledge. Issues to be considered include cultural constructions of the body in society of different scales, cultural formations of sexuality, gender, and human biology, the body as the site of political control in colonial and post-colonial societies, cultural and practical relationships of the body to the humanly built environment. Seminar; limited enrollment: 20.
Prerequisite: [ANT111 or ANT161 or ANT051] or permission of the instructor.
Session: Winter Day
J. Boddy

ANTC02F and ANTCO48 Directed Reading in Anthropology
A directed exploration of specific topics in Anthropology, based on extensive investigation of the literature. These courses are available in exceptional circumstances and do not duplicate regular course offerings. Students are advised that they must obtain consent from the supervising instructor before registering. Individual tutorials, as arranged.
In addition to course work to be decided by the instructor, one seminar presentation of the student's research findings is required.
Prerequisite: ANT104Y & one II-level full-course equivalent in Anthropology & permission of instructor.
Session: Winter Day, Winter Evening, Summer Evening
Members of Faculty

ANTC025Y Anthropological Study of Religion
Telephone ID: 00730563
A cross-cultural study of systems of belief and ritual concerning spiritual beings and the cosmos; of social actions, rights, and obligations arising from human dependence on spiritual beings; and of magic, culting, witchcraft and sorcery. The course is concerned with the anthropological study of supernatural beings in small scale non-Western societies. Topics to be covered (time permitting) will be: The origin and function of religion, symbology, myth, ritual, shamansm, magic, witchcraft, divination, death, ghosts, ancestor cults, and dynamics in religion. One two-hour session per week.
Exclusion: ANT341Y
Prerequisite: ANT101Y
Session: Winter Day
G. Gillison

ANTC103 Anthropological Perspectives on Development
Telephone ID: 00731053
A critical examination of the concept and practices of development in several Third World societies. Attention will be paid to issues of colonization and the postcolonial order, global capitalism, and the intersection of Western ideas with local knowledge and practices. Seminar; limited enrollment: 20.
Prerequisite: ANT102Y or permission of instructor.
Session: Winter Day
J. Boddy

ANTC11Y The Anthropology of Women and Gender
Telephone ID: 00731163
A cross-cultural examination of sex roles and women's status and their implications for the position(s) of women in contemporary society.
The course explores how and why socio-cultural systems based on sexual inequality originate, how they maintain themselves, and how they change. Topics include biological factors and constraints; cultural interpretations of feminality and masculinity in local, national, and international contexts; and the role of gender in the production and use of material objects in different cultural environments, and to the effects of change on the ideologies that have influenced these objects as products of specific environments. The course is designed for the formal examination of these factors.
Prerequisite: ANT104Y or permission of instructor.
Session: Winter Day
J. Boddy

ANTC12H Research on the Social Behaviour of Non-Human Primates
Telephone ID: 00731243
The purpose of this course is to learn field techniques in the study of non-human primates. The current subjects are Old World Monkeys ( vervets, Macacus rhesus) which were translocated to Barbados from the United States 7 years ago. Orientation and training sessions proceed the two weeks of field work. Observation is from dawn to dusk. Entries are written for discussion, transcription and analysis. In addition, there are guest lectures from local ethologists and wildlife conservationists, and visits to important sites. There will be some free time. Evaluation includes participation, preliminary research, field notes, log book and seminar write-up.
Fee of approximately $1,500 to $2,000 includes air fare and local transportation, and shared room accommodation. Deposit must be made by May 30. Participation is by permission of instructor. Please contact Professor Buson directly for further information at e-mail: buson@harvard.edu or (416) 287-7345.
Enrollment is limited to 10.
Prerequisite: ANT12Y (ANT22Y) & permission of instructor.
Session: Summer
P.D. Burton

ANTC19F Economic Anthropology
Telephone ID: 00730933
An investigation of comparative economic systems from ecological and adaptive perspectives.
In particular, this course focuses on methods of production, reproduction, and consumption. The course examines cross-cultural systems of production, reproduction, and market exchange, with attention given to the production and use of material objects in different cultural environments, and to the effects of change on the ideologies surrounding these objects as products of specific environments. The course is designed for the formal examination of these factors.
Prerequisite: ANT104Y or permission of instructor.
Session: Winter Day
J.W. Shirley

ANTC20V The Theory and Practice of Archaeology: An Introduction
Telephone ID: 00732663
A survey of the anthropological sub-discipline which is concerned with human socio-cultural development during the past three million years.
Specifically, the course reviews the aims, values, and practice of prehistoric archaeology in both the New and Old Worlds. This course will involve two hours of lecture and one hour of laboratory per week as well as one field trip on a Saturday or Sunday of the Fall term.
Exclusion: ANT200L, ANT121L
Prerequisite: ANT104Y, [ANT111F and ANT125F are recommended]
Session: Winter Day
H.B. Schroeder

ANTC37Y Prehistory of Mexico and Mesoamerica
Telephone ID: 00733773
An attempt to understand the development and achievements of the civilizations of Mexico. We will consider the two main problems: the beginnings of agriculture and its effects on culture, and the forces which contributed to the emergence or disappearance of civilization. Students will become familiar with the art, crafts and architectural styles of the best known sites which typify the civilizations of this region.
Exclusion: [ANT317F
Prerequisite: ANT140Y, [ANT130F and ANT130M are recommended]
Session: Winter Day
M. Luna

ANTC47Y Human Osteology
Telephone ID: 00747663
A "hands-on" laboratory course which introduces students to the methods of analysis of skeletal remains. This course is designed with the needs of Physical Anthropology and Archaeology students in mind. It has proven useful to students in allied disciplines. The first half of the course is the "Bone Biology" part, while the second half is the " Anthropological" part. During the first half the student learns (1) the recovery and treatment of skeletal remains from archaeological sites; (2) the osteological description, including dental pathology; and (3) osteometric description;
ANT459F Death and Burial
Tel: 506-596-1800
This course examines the social, cultural, and symbolic aspects of death and burial practices in various societies. It covers the historical and cultural contexts of death and burial, and explores how these practices reflect and shape social, cultural, and religious beliefs. The course is taught by Dr. Jane Smith, an anthropologist specializing in death and burial practices. Students are required to complete a 10-page research paper on a topic related to death and burial in a society of their choice. The paper should be submitted by the end of the term. The course is recommended for students interested in cultural, social, and religious anthropology. Credit: 3.0

ANT501F Medical Anthropology: Illness and Healing in Cultural Perspective
Tel: 506-596-1800
This course examines the relationship between illness, healing, and culture. It covers the ways in which cultural beliefs and practices influence the experience and treatment of illness. The course is taught by Dr. Jane Smith, an anthropologist specializing in medical anthropology. Students are required to complete a 10-page research paper on a topic related to illness and healing in a society of their choice. The paper should be submitted by the end of the term. The course is recommended for students interested in medical, cultural, and social anthropology. Credit: 3.0
Biological Sciences (B.Sc.)

Faculty List

J.C. Ritchie, B.Sc. (Abderdeen), Ph.D. (Birmingham)
F.R.S.C., Professor Emeritus

F.A. Upton, B.A., M.A., Ph.D. (Toronto), Professor Emeritus

A.H. Weatherley, B.Sc. (Sydney), M.Sc. (Tasmania), Ph.D. (Glasgow), Professor Emeritus

G.R. Williams, B.Sc., Ph.D., D.Sc. (Liverpool), F.R.S.C., Professor Emeritus

R. Brogden, B.Sc. (Calgary), Ph.D. (British Columbia), Professor

L.R. Brown, B.Sc. (Carleton), Ph.D. (Toronto), Professor Emeritus

C.K. Gowd, B.Sc. (Rhode), M.Sc. (Albany), Ph.D. (Marquette), Professor

J.W. Cook, B.A. (Mount Alliston), Ph.D. (McGill), Professor

C. Nataraj, B.Sc., Ph.D., D.Sc. (University College London), Professor

J.C. Silver, B.Sc., Ph.D. (CUNY), Professor

R.P. Thompson, M.A., Ph.D. (Toronto), Professor

D.D. Williams, B.Sc. (University College North Willies), Dip.Ed. (Liverpool), M.Sc., Ph.D. (Waterloo), D.Sc. (Water), Professor

J.H. Young, B.A. (Victoria), M.Sc. (McMaster), Ph.D. (Western Ontario), Associate Professor

R.F. Belding, B.Sc., Ph.D., (California, Davis), Associate Professor

M.F. Pilo, B.S. (St. Peter's), M.S. (Florida State), Associate Professor

C.D. Riege, B.Sc. (Wayne), Ph.D. (Florida State), Associate Professor

N. Williams, B.Sc. (Guelph), M.Sc. (Washington), Ph.D. (Toronto) Associate Professor

C. Haefner, B.Sc. (Loyola), M.Sc., Ph.D. (Florida State), Assistant Professor

D.S. Hik, B.Sc. (Queen's), M.Sc. (Toronto), Ph.D. (British Columbia), Assistant Professor

G.C. Vastenberg, B.Sc., M.Sc. (Western Ontario), Ph.D., (Queen's), Associate Professor

C. Pickert, B.Sc., M.A. (Toronto), Senior Tuteur

Associate Chair: C.D. Riege

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

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

Beginning in the 1997/98 academic year, a required set of core courses will be implemented for the Biological Sciences Specialist Programmes. The core courses consist of Introduction to Biology and three second year courses in Cell and Molecular Biology, Plant and Animal Physiology, and Ecology and Evolutionary Biology. A second change involves the change in the system from BSC to SC to reflect the change in course numbering. One other change involves a required course in General Chemistry for Biological Sciences Majors. Students are advised to consult the specific programme requirements for further details. For the appropriate programme supervisor for advice.

Courses from the other core areas may be used to satisfy programme requirements, but such substitutions must be pre-approved by the Supervisor of Studies. Students who are contemplating enrolment in graduate or professional schools should consult their programme for specific entrance requirements which might be satisfied while fulfilling degree requirements.

Courses in Neuroscience

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

MINOR PROGRAMME IN BIOLOGICAL SCIENCES

Supervisor: C.K. Gowd (Room 5246. 307-7577)

This programme must include GY361, Y362 plus two full-course equivalents in Biology. At least 1 F.C.E. must be at the C- or D-level.

MAJOR PROGRAMME IN BIOLOGICAL SCIENCES

Supervisor: C.K. Gowd (Room 5246. 307-7577)

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

1. GY160, F.C.E. in any two of the core curriculum components:
   - GY161/164/210/310, GY163/167/165/265/365/365, GY150
   - One-half F.C.E. in one of the three core labs:
     - GY1B12S, GY1B32S or GY2B12S
   - One-half F.C.E. from the offerings in Structure and Diversity:
     - See B12F, GY1C21F, GY2C22S, GY2C25F, GY2C26S, GY2C28S, GY2C30SF, GY2C35S, GY2C37S or GY2D25S
   - Two additional F.C.E.'s in Biology.
### SPECIALIST PROGRAMME IN BIOLOGICAL SCIENCES

**Supervisor:** C. K. Govind  
**Room:** 327C/207, 327-7977

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

1. Four P.C.E.'s specified consisting of the core curriculum components: BOT040Y, BOT070Y, BOT074Y, BOT0750
2. One-half P.C.E. in one of the three core labs: BOTYB125, BOTYB35 or BOTYB523
5. Four one-half P.C.E.'s in additional Biology courses.
6. One P.C.E. in CAMAGY
7. One-half P.C.E. in Physics (PHY100F or PHY100S)
8. One P.C.E. in MATA26Y
9. 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

**Supervisor:** D. D. Williams  
**Room:** 344G, 327-7423

This programme consists of 14 required P.C.E.'s. Students in this programme must take EDO9005 during the first year and EDO9050 during the second year to properly stream through the programme. The specific programme requirements are:

1. Four P.C.E.'s specified consisting of the core curriculum components: BOT040Y, BOT070Y, BOT074Y, BOT0750
2. One-half P.C.E. in BOT070F or BOT074Y
3. Four one-half P.C.E.'s in additional Biology courses.
4. One P.C.E. in CAMAGY
5. One-half P.C.E. in Physics (PHY100F or PHY100S)
6. One P.C.E. in MATA26Y
7. One P.C.E. from the courses listed by the Division of Humanities, Social Sciences or Management and Economics

### SPECIALIST PROGRAMME IN CELLULAR MOLECULAR BIOLOGY

**Supervisor:** I. Brown  
**Room:** 354A, 327-7415

This programme consists of 14 required P.C.E.'s. Students in this programme must take CHMAGY during the first year and CHM844Y and CHM875S during the second year in order to properly stream through the programme. The specific programme requirements are:

1. Four P.C.E.'s specified consisting of the core curriculum components: BOT040Y, BOT070Y, BOT074Y, BOT0750
2. One-half P.C.E. in EDO9005
3. Four P.C.E.'s in essential concepts courses: BOTC29F, BOTC29S, BOTC01F, BOTC01S, BOTC23F, BOTC23S, BOTC25F, BOTC25S, ECO00F, ECO00S, ECO10F, ECO10S, ECO17F, ECO17S, ECO19F, ECO19S, ECO535. Students should note that most of the individual courses in this group are offered in alternate years.
4. One P.C.E. in CAMAGY
5. One-half P.C.E. from the following list of courses in Structure and Diversity: BOTYB70F, BOTYB70S, BOTYB74F, BOTYB74S, BOTYB75F, BOTYB75S, BOTYB77F, BOTYB77S, BOTYB79F, BOTYB79S, BOTYB84F or BOTYB84S
6. One and one-half P.C.E.'s from the following two groups of courses, with a minimum of 0.5 P.C.E.'s from categories A and B:
   - **A. Practical Field Courses:** BOTC30F, BOTC30S, BOTC32F, BOTC32S, BOTC35F, BOTC35S, BOTC37F, BOTC37S, BOTC39F, BOTC39S or BOTC90F
   - **B. Conceptual Courses:** BOTC35S, BOTC35F, BOTC37S, BOTC37F, BOTC39S, BOTC39F, BOTC90F, BOTC90S, ECO00F, ECO00S, ECO10F, ECO10S, ECO17F, ECO17S, ECO19F, ECO19S, ECO535
7. One P.C.E. from the following Environmental Science courses: EDO0005, EDO1004, EDO1005 and EDO1045
8. One-half P.C.E. in statistics: STA222FS or PSTY100FS

### BOBY10Y Introductory Biology

**Telephone ID:** 4172063

BOBY10Y is a lecture and laboratory course designed to examine levels of organization beginning with biological molecules, then proceeding to cells, tissues, organs, organisms and concluding with population and community ecology. Course involves the interplay of theory and laboratory. The introductory biology course is in effect a self-paced 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, histology, molecules, and genetics. The second quarter examines membranes, enzymes, respiration, photosynthesis, and plant tissue structure and development. In the third quarter anatomy, physiology is considered with emphasis on nutrition, gas exchange, blood circulation, excretion and excretion. The fourth quarter concentrates on ecology and evolution by examining natural selection, speciation, population, community structure and dynamics and biodiversity. Two one-hour lectures and one three-hour laboratory per week.

**Exclusion:** (BIOA02Y, BIOA05Y) Sessions: Winter Day  
**C. Haarsenklomp / G. Venterberga / D.S. Reh / C.K. Govind

### BOBY20Y Plant and Animal Physiology

**Telephone ID:** 4172063

Physiological aspects of plants and animals. A core course in physiology with options to extend the term to animal physiology and the other term to plant physiology. The plant physiology term
This course will familiarize students with the diversity of animal life and how this is organized for scientific study. Much of the course will be concerned with nonvertebrates, as it is amongst these that the vast majority of the structural and functional diversity of organisms lies. Information on important animal groups and their evolution will be set in the context of past and present global distribution patterns. Coverage will begin with consideration of the evolution of diversity in a functional context. Subsequent topics will include the major biomes (marine and terrestrial), continental drift, dispersal, endemism, concepts of abundance and rarity, comparison of the flora of continents and islands, and the fundamental influence of climate. Important biological processes to be studied will include adaptation, speciation, coalescence, and extinction. The course will conclude with discussion of the invasive role of mankind in shaping modern biogeography. One two-hour lecture/discussion group, and one three-hour laboratory per week.

Exclusion: (BIOC357, BIOC358, BIOC400, BIOC401, BIOC402)

Prerequisites: (BIOC101Y) or BIOC102Y & CHEM134Y & CHEM135Y & CHEM136Y & CHEM235Y

Session: Winter Day

J.W. Gard

BIOC155 Biochemistry & Biophysics

Biological Sciences 31

This course is an introduction to the basic concepts of genetics and will include: the genes; inheritance, DNA as a genetic material, the cell's utilization of the genetic material, recombination, DNA replication, and its applications. There are no prerequisites for this course. It is not available to students in the BIOC400, BIOC401, BIOC402 programs, or those with credit for BIOC101Y or BIOC102Y.

Exclusion: BIOC155

Session: Winter Day

M.F. Filatov

BIOC165 Genetics

This course is an introduction to the basic concepts of genetics and will include: the genes; inheritance, DNA as a genetic material, the cell's utilization of the genetic material, recombination, DNA replication, and its applications. There are no prerequisites for this course. It is not available to students in the BIOC400, BIOC401, BIOC402 programs, or those with credit for BIOC101Y or BIOC102Y.

Exclusion: BIOC155

Session: Winter Day

M.F. Filatov

BIOC175 Molecular Biology

This course is an introduction to the basic concepts of genetics and will include: the genes; inheritance, DNA as a genetic material, the cell's utilization of the genetic material, recombination, DNA replication, and its applications. There are no prerequisites for this course. It is not available to students in the BIOC400, BIOC401, BIOC402 programs, or those with credit for BIOC101Y or BIOC102Y.

Exclusion: BIOC155

Session: Winter Day

M.F. Filatov

BIOC185 Biochemistry & Biophysics

Biological Sciences 31

This course is an introduction to the basic concepts of genetics and will include: the genes; inheritance, DNA as a genetic material, the cell's utilization of the genetic material, recombination, DNA replication, and its applications. There are no prerequisites for this course. It is not available to students in the BIOC400, BIOC401, BIOC402 programs, or those with credit for BIOC101Y or BIOC102Y.

Exclusion: BIOC155

Session: Winter Day

M.F. Filatov
BIOG2165 Genetics II
Telephone ID #: 41731553
This course will cover the following topics: mutation, the assignment of genes to specific locations on chromosomes and genetic maps, regulation of gene activity in prokaryotes and eukaryotes, the role of genes in development.
Prerequisite: BIOG215. Session: Winter Day M.F. Fialek

BIOG217F Microbiology I: The Bacterial Cell
Telephone ID #: 41731313
A lecture and laboratory course describing the general properties of bacterial cells, employing selected organisms to illustrate the role of bacteria in health, research, microbiology, the environment and in any field using molecular biology and recombinant DNA approaches.
Students will gain awareness of the streamlined organization of bacterial cells and physiological abilities and how these impact on other organisms, including ourselves. The laboratories include practical training in basic microbiological techniques which are useful in molecular biology and many other fields.
One two hour lecture and three hours of laboratory each week. Exclusion: BIOG2125, BIOG2126. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day J.C. Silver

BIOG218F Vertebrate Histology: Cells and Tissues
Telephone ID #: 41732333
A study of the structure of cells and the various tissue types which make up the vertebrate body: epithelial, connective, muscle, nervous, blood, and lymphatic. Lab work is placed on the development and function of the cells and tissues. One two hour lecture and one three hour laboratory per week.
Exclusion: BIOG2185, BIOG2187, BIOG2189, BIOG2190, BIOG2192. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day T.B.A.

BIOG2195 Vertebrate Histology: Organs
Telephone ID #: 41732325
The histological structure of the major organ systems of the vertebrate body: sense, integument, digestive, respiratory, excretory, reproductive. Vertebrate emphasis is placed on functional morphology, evolution, and development.
Two one hour lectures, plus one two hour tutorial per week. Exclusion: BIOG2185, BIOG2190, BIOG2192. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day T.B.A.

BIOG237F Animal Developmental Biology
Telephone ID #: 41732553
This lecture course will focus on cellular and molecular events which underlie animal development. Particular reference will be given to the concept that regulation of gene activity is fundamental to development. Following a discussion of cellular and molecular events in early embryonic life, the development of several model systems will be analyzed at the cell and molecular level such as yeasts, Drosophila, mouse development in the eye, and amphibians and gastrulation and neural differentiation.
One two hour lecture per week. Exclusion: BIOG2185. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day J.R. Brown

BIOG238F Molecular Physiology of the Bacterial Cell
Telephone ID #: 41732443
A laboratory course which emphasizes the molecular mechanisms underlying bacterial cell processes such as active transport, chemotaxis, protein targeting and gene regulation. The biology of bacterial host-vector systems used in recombinant DNA technology. Laboratory exercises are research-oriented experiments involving the growth and enumeration of bacterial cells, effects of antibiotics, incorporation of radioisotopes into nucleic acids and proteins and the use of bacterial cells to produce foreign proteins. Gel electrophoresis, lipid solubility counting and other research techniques are used.
One two hour lecture and one three hour laboratory per week. Limited enrollment: 20.
Exclusion: BIOG2385. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day J.C. Silver

BIOG239F Plant Structure: Cells and Tissues
Telephone ID #: 41732553
The structure and development of cells and tissues making up the vascular plant body are examined at the light and electron microscope levels. Endo- and exodermis is used to demonstrate the transition of tissues throughout the plant body. A review of cell constituents and cell wall provides a more detailed consideration of tissue types including parenchyma, collenchyma, sclerenchyma, xylem, phloem and a variety of secretory structures. Some attention is given to the relationship between structure and function as well as to the evolution of more complex cell types such as vessel members and sieve elements. Microscopy work in the laboratories emphasizes the recognition of cells, cell products and tissues dealt with in the lectures and text.
Two one hour lectures and one three hour laboratory per week. Offered in alternate years.
Exclusion: BIOG237F, BIOG238F. Prerequisites: BIOG2130 or BIOG2130. Session: Winter Day T.B.A.

BIOG265F Plant Structure: Organs
Telephone ID #: 41732553
A study of the morphological, histological and developmental analysis of the major vegetative plant parts (root, stem, leaves and derived structures) in higher vascular plants. Questions to be addressed include: how does plant parts arise, and how does their pattern of initiation and growth affect overall plant form; what is the range of morphological variation for a given type of plant part (e.g. storage root, prepulp, grazing root, serving root, roots, root, etc.); what special histological and developmental attributes are associated with these morphological variations; how can one relate form and internal structure to function and adaptation to particular environments? The laboratories include examples of subjects covered in the lectures and text. Each student receives adequate training to complete a comprehensive project by the end of the course.
Two one hour lectures and one three hour laboratory per week. Offered in alternate years.
Exclusions: BIOG2385, BIOG2386. Prerequisite: BIOG237F or BIOG2385. Session: Winter Day R. E. Dengler

32 Biological Sciences

BIOG2165 Genetics II
Telephone ID #: 41731553
This course will cover the following topics: mutation, the assignment of genes to specific locations on chromosomes and genetic maps, regulation of gene activity in prokaryotes and eukaryotes, the role of genes in development.
Prerequisite: BIOG215. Session: Winter Day M.F. Fialek

BIOG217F Microbiology I: The Bacterial Cell
Telephone ID #: 41731313
A lecture and laboratory course describing the general properties of bacterial cells, employing selected organisms to illustrate the role of bacteria in health, research, microbiology, the environment and in any field using molecular biology and recombinant DNA approaches.
Students will gain awareness of the streamlined organization of bacterial cells and physiological abilities and how these impact on other organisms, including ourselves. The laboratories include practical training in basic microbiological techniques which are useful in molecular biology and many other fields.
One two hour lecture and three hours of laboratory each week. Exclusion: BIOG2125, BIOG2126. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day J.C. Silver

BIOG218F Vertebrate Histology: Cells and Tissues
Telephone ID #: 41732333
A study of the structure of cells and the various tissue types which make up the vertebrate body: epithelial, connective, muscle, nervous, blood, and lymphatic. Lab work is placed on the development and function of the cells and tissues. One two hour lecture and one three hour laboratory per week.
Exclusion: BIOG2185, BIOG2187, BIOG2189, BIOG2190, BIOG2192. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day T.B.A.

BIOG2195 Vertebrate Histology: Organs
Telephone ID #: 41732325
The histological structure of the major organ systems of the vertebrate body: sense, integument, digestive, respiratory, excretory, reproductive. Vertebrate emphasis is placed on functional morphology, evolution, and development.
Two one hour lectures, plus one two hour tutorial per week. Exclusion: BIOG2185, BIOG2190, BIOG2192. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day T.B.A.

BIOG237F Animal Developmental Biology
Telephone ID #: 41732553
This lecture course will focus on cellular and molecular events which underlie animal development. Particular reference will be given to the concept that regulation of gene activity is fundamental to development. Following a discussion of cellular and molecular events in early embryonic life, the development of several model systems will be analyzed at the cell and molecular level such as yeasts, Drosophila, mouse development in the eye, and amphibians and gastrulation and neural differentiation.
One two hour lecture per week. Exclusion: BIOG2185. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day J.R. Brown

BIOG238F Molecular Physiology of the Bacterial Cell
Telephone ID #: 41732443
A laboratory course which emphasizes the molecular mechanisms underlying bacterial cell processes such as active transport, chemotaxis, protein targeting and gene regulation. The biology of bacterial host-vector systems used in recombinant DNA technology. Laboratory exercises are research-oriented experiments involving the growth and enumeration of bacterial cells, effects of antibiotics, incorporation of radioisotopes into nucleic acids and proteins and the use of bacterial cells to produce foreign proteins. Gel electrophoresis, lipid solubility counting and other research techniques are used.
One two hour lecture and one three hour laboratory per week. Limited enrollment: 20.
Exclusion: BIOG2385. Prerequisite: BIOG2130 or BIOG2130. Session: Winter Day J.C. Silver

BIOG239F Plant Structure: Cells and Tissues
Telephone ID #: 41732553
The structure and development of cells and tissues making up the vascular plant body are examined at the light and electron microscope levels. Endo- and exodermis is used to demonstrate the transition of tissues throughout the plant body. A review of cell constituents and cell wall provides a more detailed consideration of tissue types including parenchyma, collenchyma, sclerenchyma, xylem, phloem and a variety of secretory structures. Some attention is given to the relationship between structure and function as well as to the evolution of more complex cell types such as vessel members and sieve elements. Microscopy work in the laboratories emphasizes the recognition of cells, cell products and tissues dealt with in the lectures and text.
Two one hour lectures and one three hour laboratory per week. Offered in alternate years.
Exclusion: BIOG237F, BIOG238F. Prerequisites: BIOG2130 or BIOG2130. Session: Winter Day T.B.A.

BIOG265F Plant Structure: Organs
Telephone ID #: 41732553
A study of the morphological, histological and developmental analysis of the major vegetative plant parts (root, stem, leaves and derived structures) in higher vascular plants. Questions to be addressed include: how does plant parts arise, and how does their pattern of initiation and growth affect overall plant form; what is the range of morphological variation for a given type of plant part (e.g. storage root, prepulp, grazing root, serving root, roots, root, etc.); what special histological and developmental attributes are associated with these morphological variations; how can one relate form and internal structure to function and adaptation to particular environments? The laboratories include examples of subjects covered in the lectures and text. Each student receives adequate training to complete a comprehensive project by the end of the course.
Two one hour lectures and one three hour laboratory per week. Offered in alternate years.
Exclusions: BIOG2385, BIOG2386. Prerequisite: BIOG237F or BIOG2385. Session: Winter Day R. E. Dengler
BOYG27F Advanced Plant Physiology & Biochemistry
Telephone ID: 4175373
This lecture and laboratory course will provide a comprehensive view to plant function. Lecture topics will include: energy metabolism within the chloroplast and mitochondrion; carbon and nitrogen metabolism; effects of light and other environmental cues on development; an overview of plant hormones; and responses to pathogens and to environmental stress.

This course will also make use of both "classic" and recent research publications in the physiology, biochemistry, and molecular biology of plants to illustrate some experimental approaches to studying plant function such as the technology of gene transfer to plants. Laboratories and tutorials will illustrate important principles in plant physiology such as water relations, nutrient relations, chloroplast metabolism, and the regulation of growth and development by environmental and hormonal cues.

Two one hour lectures per week and one three hour lab or tutorial most weeks.
Exclusion: (BIOG60Y), (BIOG725), (BIOG7251F)
Prerequisite: (BIOG60Y), or 725 or (BIOG725)
Session: Winter Day
G. Vonderhege

BOYG28B Marine Biology
Telephone ID: 4173583
A field course on selected topics of marine biology with particular emphasis on tropical waters. The course will be held during reading week at a field station in the Caribbean and will include a considerable practical component. Prior to field work, there will be a series of lectures on the origins of the oceans; waves, tides and currents; and the ecology of marine organisms, at Scrahaven. On site, students will study three main habitat types: rocky shore, open ocean, and coral reef. In addition, students will work on individual projects. Limited enrollment: 10
Exclusion: (BIOG60S), (BIOG60H)
Prerequisite: (BIOG12Y) or 725 or permission of instructor*
Session: Winter Evesing
D. D. Walliser
* As this course is often oversubscribed, interested students should contact the instructor well in advance of the start of the full term for details and must, at that time, be prepared to place a deposit towards the cost of airfare and accommodations. Places are allocated on a first-come, first-served basis.

BOYG378 Microbes in the Environment
Telephone ID: 4175555
An examination of the relationships between microorganisms (algae, bacteria, fungi) and their environment. Following a survey of microbial diversity, cellular factors of major importance to microorganisms will be discussed (pH, ionic potential, temperature, solar radiation, pressure, water activity). Interactions among microbial populations, as well as between microorganisms and plants, and between microorganisms and nutrients, will be described in detail. Fundamentals of microbial ecology in aquatic and terrestrial habitats will be examined, including microbial seasonal dynamics, productivity, and the role of microorganisms in nutrient cycling and food webs.

One two hour lecture per week.
Several tutorials and problem sets.
Exclusion: (BIOG185), (BIOG101)
Prerequisites: (BIOG12Y) or (BIOG12Y) or 725 or 7250Y
Session: Winter Day
C. Nalwebu

BOYG465F Limnology
Telephone ID: 4175565
A field course on selected topics of ecology dealing with interactions of lake biota and the environmental setting. Physical, chemical, and biological properties of lakes will be examined with special reference to northwestern lakes. The structure and function of normal lake ecosystems will be examined with the objective of gaining insight into lake responses to autogenic perturbations such as nutrient pollution (eutrophication), acidification, beaver metal pollution, and global climate change.

One two hour lecture per week.
Several problem sets and tutorials.
Exclusion: (BIOG185), (ZOOG70H), (ZOOG70H)
Prerequisite: (BIOG12Y) or 7250Y
Session: Winter Day
C. Nalwebu

BOYG578 Evolutionary and Applied Biology of Insects
Telephone ID: 4175573
An evolutionary survey of the most successful phylum, Arthropoda. The phylum Arthropoda contains the most numerous and successful of all animals, particularly the insects. Coverage will begin by examining the evolutionary history of the group, which extends back 570 million years, together with its diversity and morphology. This will be followed by consideration of those species which are important to mankind in terms of commerce, medicine (e.g. allergies, disease, and forensic science), and as competitors. The course will conclude with discussion of the pivotal role played by insects in world ecosystems.

One two hour lecture / discussion, and one three hour laboratory per week.
Exclusion: (BIOG305)
Prerequisite: (BIOG307) or EESC304
Session: Winter Day
D. D. Williams

BOYG65F Advanced Population Ecology
Telephone ID: 4173593
The study of changes in the numbers of organisms in time and space in response to biotic and abiotic disturbance. Emphasis is placed on discussion of experimental studies from current literature. Topics include limitation 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: (BIOG66S)
Prerequisite: (BIOG12Y) or 7250Y
Session: Winter Day
R. Bosart

BOYCG15 Advanced Community Ecology
Telephone ID: 4173153
The study of assemblages of populations living in a prescribed habitat. This course examines both the theory and methodology of community analysis with an emphasis on the factors regulating the development of terrestrial ecosystems. The application of ecological theory to solving environmental problems is emphasized. Topics include patterns of succession; primary productivity; nutrient supply rates; herbivory; predation; competition; trophic dynamics; stability and biodiversity; patchiness and disturbance; problems of introduced species; agroecosystems; effects of global change.

One two hour lecture and one three hour laboratory per week.
Exclusion: (BOYG075)
Prerequisite: (BIOG12Y) or 7250Y
Session: Winter Day
D. Hik

BOYG265 Conservation Biology
Telephone ID: 4173653
A study of scientific principles of biological conservation. Conservation biology is a pure and applied science that addresses the declining diversity in biological diversity of the planet. Lecture topics will include ecological principles of biological conservation; the impact of disease, inbreeding, hybridization, and natural catastrophes on small or fragmented populations; problems and progress on restoration and reestablishment of natural populations; captive breeding programs; use management; dynamic interactions between global climate change and biological conservators.

One two hour lecture and one three hour tutorial per week.
Exclusion: (BIOG35), (BIOG395F)
Prerequisite: (BIOG12Y) or 7250Y
Session: Winter Day
R. Bosart

BOYG66S Environmental Toxicology
Telephone ID: 4173655
An examination of the effects of pollutants on ecosystem structure and function. Pollutants are substances that occur in the environment at least in part as a result of anthropogenic activity, and have deleterious effects on biota. This course deals with the effects of pollutants on the structure (species composition, diversity, food-web complexity), and function (nutrient cycling, productivity) in aquatic and terrestrial ecosystems. Standard methods of assessment of pollutant effects on individuals, populations, and communities will be discussed.

One two hour lecture per week.
Several tutorials and problem sets.
Exclusion: (BIOG261)
Prerequisite: (BIOG12Y) or (BIOG12Y) or 7250Y
Session: Winter Day
Directed Research in Biology

Telephone ID #: 4173454

Inter-university selection from a variety of field courses offered by the Ontario Universities Program in Field Biology, a co-operative arrangement among universities in Ontario. Courses, of one or two weeks duration at a wide variety of field sites from late April through mid September, are announced each January. Most require a major paper or project report to be submitted within six weeks of course completion. A fee for room and board is charged over and above tuition. List of courses available are posted early in January. Sign-up is on a first-come, first-served basis. Students register in the fall after the course has been completed and may take one-two week course or two-one week field courses to complete this credit. See the Scarborough co-ordinator, Professor D.D. Williams, for further details. 

Exclusions: (BIOC993H)
Prerequisites: (BIOB12Y) or (BIOY50Y) or permission of instructor. 
Session: Winter Day
D.D. Williams

Supervised Study in Biology

An independent study course designed to permit intensive examination of the literature of a selected topic and/or laboratory work or field project in biology. Supervision of the work is arranged by mutual agreement between student and instructor. This course requires the student to present his/her results as a short paper at the Biology Research Day, which is usually held during the study work preceding spring term final exams.

Students are advised to commit faculty well in advance of the registration date, and that they must obtain faculty approval before registering for this course.

Exclusions: (BIOC64Y), (ZOC460Y), (BIDD10Y)
Prerequisite: Satisfactory completion of fifteen full-course equivalents, of which at least four must be in biological sciences B- or C-level courses or permission of instructor.
Session: Winter Members of Faculty

Directed Research in Biology

Telephone ID #: 4173454

Identical to BGYD10Y but not be taken with the same faculty member.
Exclusions: (BIOC64Y), (ZOC460Y)
Prerequisites: Satisfactory completion of fifteen full-course equivalents, of which at least four must be Biological Sciences B- or C-level courses and permission of the instructor.
Session: Winter Members of Faculty

Advanced Genetics

Telephone ID #: 4174105

This course deals in depth with three or four topics in the area of genetics. In addition to lectures by the instructor, students will present oral reports based on readings of journal articles and lead a discussion of their reports. The topics covered will be different each time the course is given.
Two two-hour lectures per week.
Offered in alternate years.
Limited enrolment: 10
Exclusion: (BIOC995Y)
Prerequisites: (BIOC350Y) or (BIOC415F)
Session: Winter Day
M.F. Filone

Molecular Biology

Telephone ID #: 4173453

A study of the basic concepts of the molecular biology of the gene - key experimental observations.
This lecture and laboratory course will show how recent advances in genetic engineering have permitted great strides to be made in increasing our knowledge of the molecular biology of the gene. The course will demonstrate how recent research activity utilizing recombinant DNA technology has added to our understanding of areas such as the immune system, control of development, human genetic disease and the molecular functioning of the brain. Students will receive laboratory experience in the use of a range of molecular biology techniques. 
Two one-hour lectures per week. Laboratory sessions will meet once every three weeks for a 9 a.m. to 5 p.m. session. Limited to 30 students.
Exclusion: (BIOC51)
Prerequisites: (BIOC305Y) or (BIOC350Y)
Session: Winter Day
J.R. Brown

Comparative Morphology of Fungi, Algae and Bryophytes

Exclusions: BGYC395F
Prerequisites: (BIOC305Y)
Session: Winter Day

Comparative Morphology of Vascular Plants

Exclusions: (BIOC405S), (BIOC405H)
Prerequisites: (BIOC305Y) or any B-level BGY course or any B-level BGY course.
Session: Winter Day

Theoretical Foundations of Biology I

Exclusions: (BIOC700F)
Prerequisites: Any B-level BGY course.
Session: Winter Day

Theoretical Foundations of Biology II

Exclusions: (BIOC715S)
Prerequisites: (BIOC700F) or (BIOC700F)
Session: Winter Day

Molecular Aspects of Plant Development

Exclusions: (BIDD17P), (BIOC340)
Prerequisites: (BIOC305Y) or (BIOC415F)
Session: Winter Day

Molecular and Classical Cytogenetics

Exclusions: (BIDO18S)
Prerequisites: (BIOC305Y) or (BIDO20Y) or (BIDO25Y)
Session: Winter Day

Molecular Biology Laboratory I: Nuclei, Vectors, Cloning and Genomics

Exclusions: (BICO46F)
Prerequisites: (BIOC125S), (BIOC17F)
Session: Winter Day

Molecular Biology Laboratory II: Nuclear and Eukaryotic Genetics

Exclusions: (BICO99S)
Prerequisites: (BIDO210Y)
Session: Winter Day

Molecular Biology of the Gene

Exclusions: (BIDO99S)
Prerequisites: (BIDO210Y)
Session: Winter Day

Vertebrate Endocrinology

Exclusions: (BICO322H)
Prerequisites: (BICO725)
Session: Winter Day

River Ecology

Exclusions: (BIDO15F), (ZOC460Y)
Prerequisites: (BICO870Y) or (BIDO870Y) or (BICO870Y) or (BICO870Y)
Session: Winter Day

Seminar in Conservation Biology

Prerequisites: (BICO635S) Co-requisites: (BICO635S) or (BICO635S)
Session: Winter Day

Restoration Ecology

Prerequisites: (BICO635Y) and one other C-level BGY or EES laboratory course Co-requisites: (BICO635Y) or one other C-level BGY or EES laboratory course
Session: Winter Day

Conservation Genetics

Prerequisites or Co-requisites: (BIDO10Y) or (BICO50Y)
Session: Winter Day

Chemistry (B.Sc.)

Please refer to the Physical Sciences Scarborough section of the calendar, page 114 for a list of programmes. Please refer to page 119 for programmes and course outlines.

Classical Studies (B.A.)

Faculty List

J. Warden, M.A. (Dalhousie), Professor
L.H. Corbett, M.A., Ph.D. (Toronto), Associate Professor
M.E. Irwin, M.A., Ph.D. (North Carolina), Associate Professor
J.R. McDonald, B.A. (Alberta) Ph.D. (Wisconsin), Associate Professor

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

Classical Studies introduces the student to the Greek and Roman World, its literature, history, religion and government. Greco-Roman civilization was the wellspring of western culture and the direct antecedent of much of what is central and familiar in contemporary Canadian society. Its achievements in many fields still set the standards by which modern endeavors are judged. In most courses the original ancient Greek and Latin texts come alive in English.
CLAAGY Greek and Roman Mythology
Telephone ID #: 03010263
The emergence and treatment of myths and legends in the Greco-Roman World.
The course will examine the most important myths and legends and their representation in classical literature, drama, and art, and will partly be concerned with ancient and modern theories of myth.
This course will be useful to students engaged in literary and art-historical studies and will serve as an introduction to other courses in Classics.
Exclusion: (HUMA11), CLA205
Session: Winter Day, Summer
T.R.A.
Offered: 1998/99
CLA205Y The Mediterranean World
Telephone ID #: 03020563
A survey of the civilizations which flourished around the Mediterranean Sea in ancient times.
The primary focus will be on the Roman Empire; a brief survey of the history of the near east and Greece in the classical period (ca. 600-200 B.C.) will serve to set the historical context.
The course will begin by defining the Mediterranean region in relation to Africa, the Middle East and Europe. Students will then be introduced to the distinctive natural environment of the Mediterranean Basin with emphasis on the natural processes shaping the societies which flourished there. A brief survey of near eastern and Greek history from early times until the rise of Rome will prepare students for a more extended study of the Roman Empire at its height (from Caesar to Constantine). This course will make extensive use of literary sources read in English (translation) and archaeological evidence.
Exam: Final Exam
J.H. Corbett
Offered 1999
CLA206F Freedom in the Making of Western Culture
Telephone ID #: 03020413
An introduction to the world of the Greek polis (city-state) with a special focus on the economic, social, and political factors which gave rise to the development of democratic ideas and practices.
Students will be introduced to the Greek world in the archaic period and the conditions which gave rise to the classical Greek city-state and its institutions. Athens will be a central stage in this course; the contributions of her poets, artists, philosophers and statesmen to the foundations of western culture and social values will be examined in detail. Also taken into account will be the fact of slavery in Classical Greece, with its unique contribution to the ideology of freedom in the western tradition.
Exclusions: (GR125Y), (GR125Z), (GR126Z), CLA205
Prerequisite: CLA99Y or CLA99S or H311Y or H312Y
Session: Winter Evening
J.H. Corbett
Offered 1998/99
CLA207F Selected Topics in Classical Literature
Telephone ID #: 03020313
A detailed study of an author or a genre in Classical Literature in translation.
For 1997/98 the topic will be ancient drama; comedy. This course offers an exploration of the nature and impact of comic drama in Classical Greece and Rome, its conventions, historical origins and cultural and political context. The course introduces students to the plays of Aristophanes, Menander, Plautus and Terence. Its objective is to foster an enjoyment and appreciation of Old, Middle, and New Comedy through reading of representative texts and considerations of what makes them work, both as literary and historical documents.
Exclusion: (CLA307Y)
Prerequisite: One full-course equivalent in CLA or another literature
Session: Winter Day
J.R. McDonald
Offered 1998/99
CLA308S Selected Topics in Classical Civilization
Telephone ID #: 03020525
A detailed study of a theme in Classical Civilization; all sources will be read in English translation.
For 1997/98 the topic will be Archaeology and Life in the Roman World. One of Rome's most enduring legacies is the achievement in the realm of applied science and engineering. The students of archaeology in well-positioned, through the study of surviving material remains, to examine the Romans' attitudes to science and technology and to reconstruct the material dimension of Roman life. To this end the course will focus on buildings and monuments of various kinds (roads, bridges, aqueducts, houses, palaces and temples) in their natural and social contexts, as they are revealed through excavation and reconstruction.
Exclusion: (CLA435Y)
Prerequisite: One full-course equivalent in CLA
Session: Winter Session
J.R. McDonald
Offered 1998/99
CLA225F Classics and the Computer
Telephone ID #: 03020325
An independent research project using the resources of the computer program and the internet.
The advent of an extensive, multifaceted computer database for the study of Greek and in the form of the Perseus Project and the increasing numbers of databases and programs on the internet with content relevant to the study of ancient Rome have opened up myriad possibilities for undergraduate research into many areas of literature, classical Greek and Rome: history, literature, language, linguistics, the visual arts and architecture, among others. Under the supervision of a member of faculty, the student will design his or her own
### Course Information

#### Cognitive Science (B.Sc.)

**Faculty List**

- R.J. Bimack, M.A., Ph.D. (Chicago), Professor
- G. Bixler, B.A., B.Sc., M.Sc. (W.C.), Ph.D. (Brown), Professor
- J.M. Kennedy, B.Sc., M.Sc. (Belfield), Ph.D. (Cornell), Professor
- A. Kohs, A.B., M.A., Ph.D. (UCLA), Professor
- C.M. MacLeod, B.A. (McGill), Ph.D. (Washington), Professor
- W.E. Seeger, M.A. (Alberita), Ph.D. (Toronto), Professor
- M.C. Smith, B.A. (Toronto), Ph.D. (MIT), Professor

**Cognitive Science (B.Sc.)**

**Specialist Programme in Cognitive Science**

Supervisor: J.M. Kennedy (287-7455)

Note: The Specialist Programme consists of 12.5 F.C.E.'s. Nine are specified courses. Three and one half are to be selected from the following:

<table>
<thead>
<tr>
<th>Psychology/Neuroscience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Psychology/Neuroscience</td>
</tr>
<tr>
<td>One and one half full-course equivalents chosen from the following:</td>
</tr>
<tr>
<td>PSYB01F/S Introduction to Developmental Psychology</td>
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<tr>
<td>PSYB05F/S Sensation and Perception</td>
</tr>
</tbody>
</table>

**Specified Courses: Nine full-course equivalents**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNA01Y</td>
<td>General Linguistics (Year 1)</td>
</tr>
<tr>
<td>PHA01Y</td>
<td>Fundamental Questions of Philosophy (Year 1)</td>
</tr>
<tr>
<td>PSY01Y</td>
<td>Introduction to Psychology (Year 1)</td>
</tr>
<tr>
<td>LND04F/S</td>
<td>Practical Language Analysis: Phonology (Year 2)</td>
</tr>
<tr>
<td>LND06F/S</td>
<td>Practical Language Analysis: Syntax (Year 2)</td>
</tr>
<tr>
<td>PHL320F/S</td>
<td>Belief, Knowledge and Truth (Year 2)</td>
</tr>
<tr>
<td>PHL484F/S</td>
<td>Foundations of Cognitive Science (Year 2)</td>
</tr>
<tr>
<td>PSYB07F/S</td>
<td>Data Analysis in Psychology (Year 2)</td>
</tr>
<tr>
<td>PSYB15F/S</td>
<td>Perception and Cognition (Year 2)</td>
</tr>
<tr>
<td>PSYB18F/S</td>
<td>Memory and Cognition (Year 2)</td>
</tr>
<tr>
<td>LND05F/S</td>
<td>Practical Language Analysis: Morphology (Year 3)</td>
</tr>
<tr>
<td>PHLB11F/S</td>
<td>Theories of Mind (Year 3)</td>
</tr>
<tr>
<td>PSYF24F/S</td>
<td>Cognition and Representation (Year 3)</td>
</tr>
<tr>
<td>PSCS37F/S</td>
<td>Psycholinguistics (Year 3)</td>
</tr>
<tr>
<td>CCA00S</td>
<td>Introduction to Computer Programming</td>
</tr>
<tr>
<td>or CCA30F/S</td>
<td>Introduction to Computer Science</td>
</tr>
</tbody>
</table>

**Note:** Students with no familiarity with the use of computers would be advised to take CCA30F/S in their first year, followed by CCA30F/S in the second year. Only students with computer programming experience should attempt CCA30F/S without first taking CCA00S. Students may wish to consult with the Supervisor of Programmes before deciding on the most appropriate computer science course sequence.

**Note:** Students may substitute (CIX/B10Y) for PSYB15F/S to satisfy Cognitive Science Programme requirements for Specified Courses. If this option is selected, PSYB15F/S may be used to satisfy Cognitive Science Programme requirements in the Psychology bin.

2. **Linguistics**

One full-course equivalent chosen from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINB07F/S</td>
<td>Structure of English</td>
</tr>
<tr>
<td>LINB09F/S</td>
<td>Phonetics: The Study of Speech Sounds</td>
</tr>
<tr>
<td>LINB25F/S</td>
<td>Sacred Language Learning</td>
</tr>
</tbody>
</table>

3. **Philosophy and Theoretical Psychology**

One-half full-course equivalent chosen from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COC10F/S</td>
<td>Supervised Study in Cognitive Science</td>
</tr>
<tr>
<td>PSYB01F/S</td>
<td>Introduction to Developmental Psychology</td>
</tr>
</tbody>
</table>

**Symbolic Logic I**
4. Cognitive Science

One full-course equivalent chosen from the following:
- MATH25Y Calculus
- MATH28Y Introduction to Optimization
- MATH40Y Linear Algebra
- CSC108Y Discrete Mathematics for Computer Science
- CSC186Y Computer Organization
- CSC208Y One half course in Anthropology at the B-level or higher.

Note: It is expected that most students will take MATH28Y to fulfill their cognitive course requirement.

MAJOR PROGRAMME IN COGNITIVE SCIENCE

Supervisor: J.A. Kennedy (287-7455)

Note: The Major Programme consists of 4.5 full-course equivalents.

Specified Courses:
- Seeks full-course equivalents:
  - PSY40Y Introduction to Psychology
  - LIN10Y General Linguistics
  - LIN20Y Practical Language Analysis: Phonology
  - LIN100Y Practical Language Analysis: Syntax
  - LIN105Y Practical Language Analysis: Morphology
  - PHIL101Y Theories of Mind
  - PHIL105Y Foundations of Cognitive Science
  - PSY105Y Data Analysis in Psychology
  - PSY115Y Perception and Cognition
  - PSY125Y Memory and Cognition
  - PSY225Y Psycholinguistics
  - CSCA06Y Computer Basics
  - CSCA58Y Introduction to Computer Science

Note: (1) Students with no familiarity with the use of computers would be advised to take CSCA06Y in their first year, followed by CSCA58Y in the following year. Students having familiarity with computers, but no computer programming skills, may wish to take CSCA06Y in the first or second year. Only students with computer programming experience should attempt CSCA58Y without first taking CSCA06Y. Students may wish to consult with the Supervisor of Programme before deciding on the most appropriate computer science course sequence.

Psychology

One-half full-course equivalent chosen from the following:
- PSY205Y Introduction to Developmental Psychology
- PSY206Y Cognition and Perception
- PSY215Y Human Development and Behaviour
- PSY305Y Experimental Design in Psychology
- PSY315Y Cognition and Representation
- PSY325Y Neuroscience & Cognition
- PSY335Y Anatomy and Physiology

Note: Students may substitute (COSC101Y) for PSY205Y to satisfy Cognitive Science programme requirements for Specified Courses. If this option is selected, PSY205Y may be used to satisfy Cognitive Science Programme requirements in the Psychology bin.

COGR110H Supervised Study in Cognitive Science

Note: For Computer Science students, the Supervised Study in Cognitive Science course is a full-course equivalent in the Major Programme in Cognitive Science.

COGR110H Supervised Study in Cognitive Science

Supervised reading or research project. These courses provide an opportunity to pursue advanced study in a specialized area following the appropriate scheduled courses and in close consultation with the supervisor. They are not intended as a substitute for scheduled advanced courses. A written report or paper is normally required. Students are advised that they must obtain consent from their supervising instructor before registering for these courses.

Prerequisites: Three F.C.E.'s at the B or C level in COG and/or LIN and/or PSY; permission of a supervisor.

Session: Winter Day 7.B.A.

Computer Science (B.S.c.)

Please refer to the Physical Sciences section of the calendar, page 116 for a list of programmes. Please refer to the Computer Science section of the calendar for programme and course outlines.

Co-operative Programmes

Scaborough 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 skill required to compete in today's global economy is realized by putting classroom theory into a practical context. A broad-based curriculum is enriched with relevant, productive, paid employment.

Co-op programmes take four to five years to complete and lead to a Bachelor of Arts (B.A.) or Bachelor of Commerce (B.Com.) or Bachelor of Science (B.S.c.) degree with specialist 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 positions.

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

Specialist (Co-operative) Programme in Administration will be discontinued as of the 96W semester. 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 95W Calendar. Please refer to the Management section of the Calendar for information on the new Specialist (Co-op) Programmes in Management and Management & Economics.
indigenous organization in Asia, Africa or Latin America. Career opportunities, in Canada or abroad, include work with a variety of Canadian development agencies (CIDA), CNRP, the United Nations, and development education courses. For further information, consult the listing under International Development Studies (page 42).

Specialist (Co-operative) Programmes in Management and Economics combines study and work experience in business and government.

Core courses include Management (Commerce), Econometrics, Statistics, and Computer Science. Three work terms (four months each) are available in such areas as accounting, public administration, auditing, communications, finance, human resources, information systems and 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 97).

Admission to the Programme
Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or first-year university. The timing of work placements for students who receive transfer credits will depend upon the particular university course taken. When applying, applicants must indicate the special core for the United Kingdom programme on the Application form for admission to the programme (University of Toronto or the University of Western Ontario). Once the University of Toronto is notified of the application, candidates are sent an additional application form to complete. To be considered for the first round of selection, co-op applications must be received by the University no later than January 15.

Therefore it is essential that the applicant apply to the University at least six weeks before this date.

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

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

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

Drama (BA)
Places are for the Drama Arts, see the Calendar page 191.

Economics (BA)

Faculty List
A. Berry, B.A. (Western), Ph.D. (Princeton), Professor
J. Cohen, B.A. (Columbia), M.A., Ph.D. (California), Professor
S. Horton, B.A., M.A. (Cambridge), Ph.D. (Harvard), Professor
M. Kraslansky, S.B. (MIT), M. Phil., Ph.D. (Yale). Professor
M. Baker, B.Com. (Toronto), M.A. (York, Canada), Ph.D. (Michigan), Associate Professor
I.C. Parker, B.A. (Manchester), M.A. (Toronto), Ph.D. (Yale), Associate Professor
M. F. S. S. S. (Quebec), Assistant Professor
O. C. J. (Dalhousie), M.A., Ph.D. (Toronto), Assistant Professor
W. H. Jayne, B.A. (Western Ontario), M.A., Ph.D. (Toronto), Assistant Professor
H. L. Diffeney, B.A. (Southampton), M.A., Ph.D. (Queen's), Assistant Professor
A.A. Payne, B.A. (Denver), M.A. (Carnegie, Ph.D. (Princeton), Assistant Professor

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

There are certain courses that are central to the curriculum, the introductory courses (ECOAO2Y or ECOB3Y), the initial-level courses - Price Theory (ECOR0Y or ECOB0Y) and Macroeconomic Theory and Policy (ECOBO7Y or ECOBO8Y); at least one course that provides a different perspective either on the contemporary economic theory, or on ways of organizing economic activity - Economic History (ECOB0Y), ECOBO2Y, the Literature of Economics (ECOC2F, ECOC03S), Comparative Economic Systems (ECOBO4S). A student who wants to pursue Economics in depth should consider seriously acquiring a background in Accounting, Statistics, and Computer Science and, most important of all, Mathematics (especially Calculus, Probability Theory, and Linear Algebra).

In the first year, specialist students in Economics, Econometrics and Mathematics, Econometrics and Quantitative Methods, Management and Economics, and Management and Economic Theory should take ECOAO2Y (the mathematical version of the introductory course). Although students entering the Specialist in Economics, the Specialist in Management and Economics, and the Specialist in Management and Economic Theory will normally take MATAZ2Y in combination with ECOAO2Y, those specialists who are planning careers in Economics are encouraged to replace MATAZ2Y with MATHJ3Y (Calculus for Economic and Business courses). Students who choose ECOAO2Y (the non-mathematical version) may be able to enter those specialist programs once they have completed calculus.

Econometrics Majors and Specialists in Economics and History and in Economics and Political Science do not require calculus, so that students may take ECOAO2Y in their first year, those specialities are reflected in the Social Sciences complement courses in Economics so that students are urged to read the Calendar and, with the help of the Supervisor, to plan their programmes of study carefully.

Limited Enrolment
All economics specialist and major programmes have limited enrolment. Students admitted to these programmes are guaranteed access to enough courses to complete their programme.

Remaining spaces in the courses are allocated to non-programme students on the basis of economics grades. Limitation in the economics major programme is not limited. However, access to some courses, especially the B-level requirement, is limited, so students in the minor programme may have to take these courses during the summer session.

Admission to programme

1. Direct admission from secondary school

These students directly admitted to the Management and Economics streams must maintain a GPA of 2.0 or higher after completing 8 credits in Management and Economics programme.

2. Other students

The Supervisor of Studies makes decisions on programme admission only twice per year, in May and August, based on programme requests received by the Registrar (see winter pre-registration instructions from the Registrar). Only transfer students are considered at other times. Students with more than 10 credits will not normally be admitted to the economics major.

3. Non-programme students

However, non-programme students may still receive an economics major if they are able to complete the programme requirements. Non-programme students are warned that they will be admitted to B-level and C-level courses only after programme students have registered for these courses and that some courses may thus be unavailable, or only available in the summer. The Supervisor of Studies will not approve programme exceptions for non-programme students.

Specialist Programme in Economics

Supervisor: I. Parker

NOTE: Registration in this Programme is limited.

Students must have completed a minimum of four courses to be considered for this programme. Students with 4-6 course credits will be considered on the basis of GPA including ECOA02Y/ECOB02Y and MATAZ2Y/ECOAO2Y. Students with 7-10 course credits will be considered on the basis of GPA including ECOAO2Y/ECOB02Y and MATAZ2Y/ECOAO2Y and at least one of ECOB07Y and ECOB08Y.
The Specialist Programme in Economics requires a heavy concentration in the discipline. A Specialist Programme may not be advisable for all students. Students who are interested in Economics in other areas as well should refer to the Economics course description, and to the Major Programme in Economics.

The Programme is designed for students considering employment in fields where a knowledge of economic theory and a modest ability to do research are important. The Programme is not a guarantee of employment but it does provide the basic quantitative and theoretical skills that are desirable for decision-making in business and government.

Students must complete at least ten full-course equivalents as specified below and not more than fourteen full-course equivalents in Economics. The following specific courses must be included as part of the ten course minimum:

- ECOA02Y or ECOA04Y
- MAT1A2Y or MAT1A2Y (MAT1A2Y) or MAT1A2Y
- MAT1A4Y
- CSCA01F
- ECOB01Y
- ECOB04Y
- ECOB08Y
- (MATH11F and MATH245) and MATH12F and MATH12Y or MATH121F (MATH44) and MAT1325 (MATH49)
- STAB12F and STAB475
- EDC13F and EDC14S
- MATC15F
- ECOE06Y

One F.C.E. in courses from the Division of Humanities

**Specialist Programme in Economics and Political Science**

**Supervisor:** Ian Parker

**NOTE:** Registration in this Programme is limited.

Students must have completed a minimum of four courses to be considered for this programme. Students with 4-9 course credits will be considered on the basis of GPA including ECOA02Y, ECOA04Y, and at least one of ECOB01Y, ECOB04Y, ECOB08Y, ECOB103Y, ECOB104Y, ECOB105Y, ECOB106Y, ECOB107Y, ECOB108Y, or ECOB109Y. Six full-course equivalents are required in each of the two disciplines. Students with less than 10 course credits will be considered on the basis of GPA including ECOA02Y, ECOA04Y, and at least one of ECOB01Y, ECOB04Y, ECOB08Y.

Six full-course equivalents are required in each of the two disciplines. Students with less than 10 course credits will be considered on the basis of GPA including ECOA02Y, ECOA04Y, and at least one of ECOB01Y, ECOB04Y, ECOB08Y.

Required courses in Political Science:
- POLC12F
- POLC165Y
- POLC175Y

One full-course equivalent from each of the following fields:
- A: Canadian Government: POLC125, POLC125Y, POLC126
- B: Public Administration and Public Policy: POLC165, POLC175Y, POLC185Y, POLC190, POLC195Y, POLC204, POLC205Y, POLC206

**Specialist Programme in Management and Economics**

**Supervisor:** T.B.A

**NOTE:** Registration in this Programme is limited.

Students must have completed a minimum of four courses to be considered for this programme. Students with 4-9 course credits will be considered on the basis of GPA including ECOA02Y, ECOA04Y, and at least one of ECOB01Y, ECOB04Y, ECOB08Y.

Six full-course equivalents are required in each of the two disciplines. Students with less than 10 course credits will be considered on the basis of GPA including ECOA02Y, ECOA04Y, and at least one of ECOB01Y, ECOB04Y, ECOB08Y.

Required courses in Management:
- MGMT102
- MGMT103

One full-course equivalent from each of the following fields:
- A: Canadian Government: POLC125, POLC125Y, POLC126
- B: Public Administration and Public Policy: POLC165, POLC175Y, POLC185Y, POLC190, POLC195Y, POLC204, POLC205Y, POLC206

**Specialist Programme in Management and Economic Theory**

**Supervisor:** T.B.A

**NOTE:** Registration in this Programme is limited.

Students must have completed a minimum of four courses to be considered for this programme. Students with 4-9 course credits will be considered on the basis of GPA including ECOA02Y, ECOA04Y, and at least one of ECOB01Y, ECOB04Y, ECOB08Y.

Six full-course equivalents are required in each of the two disciplines. Students with less than 10 course credits will be considered on the basis of GPA including ECOA02Y, ECOA04Y, and at least one of ECOB01Y, ECOB04Y, ECOB08Y.

Required courses in Management:
- MGMT102
- MGMT103

One full-course equivalent from each of the following fields:
- A: Canadian Government: POLC125, POLC125Y, POLC126
- B: Public Administration and Public Policy: POLC165, POLC175Y, POLC185Y, POLC190, POLC195Y, POLC204, POLC205Y, POLC206

**Major Programme in Economics**

**Supervisor:** Ian Parker

**NOTE:** Registration in this Programme is limited.

Students must have completed a minimum of four courses to be considered for this programme. Students with 4-9 course credits will be considered on the basis of GPA including ECOA02Y, ECOA04Y, and at least one of ECOB01Y, ECOB04Y, ECOB08Y.

Six full-course equivalents are required in each of the two disciplines. Students with less than 10 course credits will be considered on the basis of GPA including ECOA02Y, ECOA04Y, and at least one of ECOB01Y, ECOB04Y, ECOB08Y.

Required courses in Economics:
- ECOA02Y
- ECOA04Y
- ECOB01Y
- ECOB04Y
- ECOB08Y
- ECOB103Y
- ECOB104Y
- ECOB105Y
- ECOB106Y
- ECOB107Y
- ECOB108Y

One full-course equivalent from each of the following fields:
- A: Canadian Government: POLC125, POLC125Y, POLC126
- B: Public Administration and Public Policy: POLC165, POLC175Y, POLC185Y, POLC190, POLC195Y, POLC204, POLC205Y, POLC206

**Minor Programme in Economics**

**Supervisor:** Ian Parker

**NOTE:** Registration in this Programme is not limited. Students are not signed into this Program, but apply for certification when they graduate. However, some requirements, particularly those at the B-level, may have to be taken in the summer session since access to courses in the winter session cannot be guaranteed.

This programme is designed to give exposure to the subject matter in some areas of Economics to students pursuing three or four year degrees. These students will have to combine this minor with other minors or majors in order to graduate.

The Minor Programme consists of four full-course equivalents in Economics as follows:
- COURSE 1: ECOA02Y or ECOA04Y
- COURSE 2: ECOB01Y or ECOB04Y or ECOB08Y
- COURSE 3: ECOB103Y or ECOB104Y or ECOB105Y or ECOB106Y or ECOB107Y or ECOB108Y

One full-course equivalent at the C level in Economics in each of the following fields:
- A: Canadian Government: POLC125, POLC125Y, POLC126
- B: Public Administration and Public Policy: POLC165, POLC175Y, POLC185Y, POLC190, POLC195Y, POLC204, POLC205Y, POLC206

**ECO002Y Introduction to Economics: A Microeconomic Approach**

**Telephone ID #** 4010263

A study of economic theory and its application to contemporary Canadian economic problems. Problems discussed include: unemployment, inflation, competition, monopoly. A microeconomic approach to economic analysis is used in this course and is oriented principally towards students.
who plan to enter the various specializations in Management and in Economics.
Exclusion: (ECO401Y1) ECO300Y1; ECO301Y
Prerequisite: OAC Calculus & OAC Algebra and Geometry or OAC Further Mathematics.
Corequisite: MAT225Y1 or MAT232Y1
Session: Winter Day

ECON42Y1 Introduction to Economics
Telephone ID #: 04320163
A study of economic theory and its application to contemporary Canadian economic problems. Problems discussed will include: unemployment, inflation, competition, monopoly.
Exclusion: (ECON420Y1) ECON402Y; ECON403Y
Session: Summer Evening, Winter Day, Winter Evening

IDSB51F5 Political Economy of International Development
Telephone ID #: 08120133
Introduction to major development problems, focusing on international economic and political economy factors.
Exclusion: ECO250Y
Corequisite: ECON402Y or ECON403Y
Session: Winter Day

ECO425Y1 Price Theory
Telephone ID #: 04320163
Intermediate level development of the principles of microeconomic theory. The course will cover the same topics as ECO405Y, but will employ techniques involving calculus so as to make the material more tractable.
Session: Summer Evening, Winter Day

ECO402Y1 Price Theory: A Mathematical Approach
Telephone ID #: 04320163
Examination of microeconomic theory with detailed discussion of the theory of output and employment and the price level, and of policy techniques for influencing the levels of these variables. There is some discussion of Canadian institutions and markets as well as of the policy experiences of Canada and other countries. Class size is limited to 80 per section.
Exclusion: ECON401Y; ECON402Y
Prerequisite: ECON425Y1 or ECON402Y1
Session: Summer Evening, Winter Day

ECO426Y1 Macroeconomic Theory and Policy
Telephone ID #: 04320163
Examination of macroeconomic theory with detailed discussion of the theory of output, employment and the price level, and of policy techniques for influencing the levels of these variables. There is some discussion of Canadian institutions and markets as well as of the policy experiences of Canada and other countries. Class size is limited to 80 per section.
Exclusion: ECON401Y; ECON402Y
Prerequisite: ECON425Y1 or ECON402Y1
Session: Summer Evening, Winter Day

GGR327S Location and Spatial Development
Telephone ID #: 06292575
Application of competitive location theory to explain economic landscapes. Topics include Ricardian rents and spatial equilibrium, trade flows and spatial price equilibrium, geographic market areas and spatial price policies, location of a firm with mobile resources, and trade theory and regional specialization.
Three hours of lectures per week.
Exclusion: GGR220Y1 or EGR227Y5
Prerequisite: ECON3Y1
Session: Winter Day

ECO420Y1 Quantitative Methods in Economics
Telephone ID #: 04320163
A study of decision making by governments from an economic perspective. The course begins by examining various institutions for public involvement in the economy and then examines a number of theories explaining the way decisions are actually made in the public sector and require some kinds of microeconomics.
Limited enrolment: 50 per section.
Exclusion: ECON3Y1
Prerequisite: ECON420Y1 or ECON402Y1
Session: Winter Day

MATH32F3 Quantitative Methods in Management
Telephone ID #: 03322103
An introduction to statistics and regression analysis as used in economic analysis. This course will cover the same topics as ECO809Y but in somewhat less depth. Topics covered will include: summary statistics, special probability distributions, confidence intervals, hypothesis testing (parametric and non-parametric methods), ANOVA, simple and multiple regression. There will be a number of computer assignments.
Limited enrolment: 80 per section.
Exclusion: ANT339F5 (ANT330F5) or ECO811F5; ECO812F5 or ECO822Y or ECO822Y(1) or MATH32F3 or PSY180F5 or SOC319F5 or STA217F5 or STA279F5
Prerequisite: ECON420Y1 or ECON402Y1
Session: Summer Evening, Winter Day, Winter Evening

ECO485F5 Comparative Economic Systems
Telephone ID #: 04320163
A research-oriented course focused on the application of general systems theory to comparative analysis of alternative economic systems, capitalist, socialist and other. This course will focus on general theoretical systems models; the other half will empirically study Russia, China and other systems.
Exclusion: ECON300Y
Prerequisite: ECON420Y1 or ECON402Y1
Corequisite: ECON485F5
Session: Winter Day

ECO480Y1 North American Economic History
Telephone ID #: 04320163
A survey of important themes in the economic history of Canada and the United States. A comparative approach is employed to develop such themes as the role of natural resource staples, urbanization, and the relationship of the state to economic change in the two countries.
Exclusion: ECO232Y, ECO232Y, ECO235Y
Prerequisite: ECON3Y1
Session: Winter Day

ECO411Y1 Econometrics
Telephone ID #: 04331163
A formal development of multiple regression analysis. Some matrix algebra will be used. Application of statistical techniques in testing economic theory. The implications and treatment of special statistical problems that arise in estimating economic relationships. A research paper is required.
Exclusion: ECO332T
Prerequisite: ECON420Y1 or ECON402Y1
Session: Winter Day
EOCSS1S Advanced Macroeconomic Theory
Telephone ID #: 04331353
An upper level extension of the ideas studied in ECOB03. The course offers a more sophisticated treatment of such topics as equilibrium, welfare economics, risk and uncertainty, strategic and repeated interactions, agency problems, and screening and signaling problems.
Exclusion: ECO326
Prerequisite: ECOB03Y & ECOB04Y & [MATA28Y or MATA31Y]
Session: Winter Day

EOCSS1F Advanced Macroeconomic Theory
Telephone ID #: 04331433
This course will review recent developments in macroeconomics, including new classical and new Keynesian theories of inflation, unemployment and business cycles.
Exclusion: ECO325
Prerequisite: ECOB04Y & ECOB05Y & [MATA28Y or MATA31Y] (MATA27Y or MATA53Y)
Session: Winter Day

ECCS28 Economics of the Media
Telephone ID #: 04331305
An examination of the role and importance of communications media in the economy. Topics to be covered include: the challenges media pose for conventional economic theory, historical and contemporary issues in media development, and basic media-research techniques. The course is research-oriented, involving empirical assignments and a research essay.
Exclusion: ECO325
Prerequisites: ECOB04Y or ECOB05Y or enrolment in the Arts Administration program
Session: Winter Evening

ECCS39 History of Economics II: Development of Economic Theory
Telephone ID #: 04332653
A study of the literature of political economy between 1870 and the 1930s, especially the work of Jevons, Walras, Marshall, Wicksteed, and the early Keynes.
Exclusion: ECO322
Prerequisite: ECOB04Y or ECOB05Y or ECOB07Y or ECOB08Y
Corequisite: ECOB04Y or ECOB05Y or ECOB07Y or ECOB08Y (whichever is not used to satisfy the prerequisite).
Session: Winter Evening

ECCS39F Economics of the Public Sector Taxation
Telephone ID #: 04331333
A course concerned with the revenue side of government finance. In particular, the course deals with existing tax structures, in Canada and elsewhere, and with criteria for tax design. Limited enrolment: 60
Exclusion: ECO326
Prerequisite: ECOB03Y or ECOB04Y
Session: Winter Day
TBA

ECCS355 Economics of the Public Sector: Expenditures
Telephone ID #: 04332533
A study of resource allocation in relation to the public sector, with emphasis on decision criteria for public expenditures. The distinction between public and private goods is central to the course. Limited enrolment: 60
Exclusion: ECO326
Prerequisite: ECOB03Y or ECOB04Y
Session: Winter Day

ECCS35P Law and Economics
Telephone ID #: 04331373
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: ECO320
Prerequisite: ECOB04Y or ECOB05Y (ECOB04Y or ECOB05Y will be accepted as an alternative subject). ECOCS21S is taught in the second term of the winter session.
Session: Winter Day

ECCS40F Economics of Organization and Management
Telephone ID #: 04334033
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, contractual theory, risk sharing, property rights, corporate financial structure and vertical integration. Limited enrolment: 60
Exclusion: ECO310
Prerequisites: ECOB03Y or ECOB04Y
Session: Winter Day

H. Lloyd-Elton

ECOCS418 Industrial Organization
Telephone ID #: 04334153
The economics of the firm in a market environment. The aim is to study types of business behaviour and market performance as influenced by concentration, entry barriers, product differentiation, diversification, research and development and international trade. There will be some limited use of calculus in this course.
Limited enrolment: 60
Exclusion: ECO329 and ECO339
Prerequisites: ECOCS21S
Session: Winter Day

MGCT33P Business Negotiation
Telephone ID #: 33555233
An introduction to the theory and practice of negotiation in business. Almost all business relationships (for example, relationships among managers and relationships with suppliers and customers) require negotiations. This course provides 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 programmes.
Exclusion: MGCT43Y
Prerequisites: MGTA17Y, MGCT23F, MGCT245
Session: Winter Evening

MGCT335 Introduction to Industrial Relations
Telephone ID #: 33555333
An overview of the industrial system and process in Canada. The course will introduce students to: industrial relations theory, the roles of unions and management, employment law, labour law, the impacts of collective bargaining on the economy and the firm, strikes and lockouts, grievance arbitration, collective bargaining in the public sector, occupational health and safety, and workers compensation, and the history of the Canadian industrial relations system. Students will participate in collective bargaining simulations.
Limited enrolment: 60
This course will count as A-course in Economics for Economics programmes.
Exclusion: MGCT43Y
Prerequisite: Completion of at least ten full-course equivalents including ECOA03Y or ECOA02Y and MGTA20Y
Session: Winter Evening

EOCS528 Labour Economics II
Telephone ID #: 04335251
A continuation of ECOCS51S. Topics covered will include: union; wage structure; sex and race discrimination; human capital theory; investment in education. Policy issues discussed will include: pay equity; affirmative action; training initiatives; migration.
Limited enrolment: 60
Exclusion: ECO329 and ECO339
Prerequisites: ECOCS21S
Session: Winter Day

ECONOMICS 51
ECON018 International Economics: Finance

Telephone ID #: 04336153
Macroeconomic theories of the balance of payments and the exchange rate in a small open economy. Recent theories of exchange rate determination in a world of floating exchange rates. The international monetary system. Fixed versus flexible exchange rates, international capital movements, and their implications for monetary policy. Limited enrolment: 60. Exclusion: ECON028. Prerequisite: ECON070Y or ECON08Y. Session: Winter Day.

ECON025 International Economics: Trade Theory

Telephone ID #: 04336233
An outline of the standard theories of international trade: analysis of the factors on which a country's trade with other countries is based and the welfare implications of this trade; and empirical tests of these theories. Economic growth and international trade. The instruments and effects of trade policy (tariffs, quotas, non-tariff barriers); the theory of customs unions. Limited enrolment: 50. Exclusion: ECON028. Prerequisite: ECON08Y or ECON04Y. Session: Winter Day.

ECON068 Economic Development

Telephone ID #: 04336635
An introduction to the processes of growth and development in less developed countries and regions. Topics include the role of international trade and investment in developing countries, the problems of population growth and unemployment, inequalities in income distribution, the roles of agriculture and industry. Limited enrolment: 50. Exclusion: ECON034. Prerequisite: ECON004Y. Session: Winter Day.

ECON075 Development Policy

Telephone ID #: 04336753
A consideration of how government policy can affect the pace and nature of development in Third World countries. Emphasis will be on the most important policies including those relating to rural organization, agricultural goods markets, labour markets, credit markets, land rights systems, income distribution and technological change. Limited enrolment: 50. Exclusion: ECON034. Prerequisite: ECON066Y/5. Session: Winter Day.

ECON081 Workshop in Economic Research

Telephone ID #: 04335943
This course introduces students to the techniques used by economists to define research problems and to do research. In the first term, various members of the staff will discuss their approaches to research. At the end of the term, 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. Prerequisite: ECON04Y or ECON015Y [ECON08Y & ECON015Y for first year calculus] & ECON095Y. This course should be taken among the 5 courses of a twenty course degree. Session: Winter Day.

ECON014F and ECON0125 Supervised Reading

For upper level students whose interests are not covered in one of the other courses normally offered. Students are expected to design the course with the guidance of a staff member interested in the area of study being proposed. The course will normally be made available only to students whose performance in Economics courses has been well above average. Students interested in supervised reading courses are urged to contact faculty members well in advance, as not all faculty will be available for these courses in any single term. Students are advised that they must obtain consent from the supervising instructor before registering for this course. Session: Summer Day, Summer Evening, Winter Day, Winter Evening.

Courses Not Offered in 1990/91

ECON08Y European Economic History

Exclusion: ECO101, 201, 452. Prerequisite: ECON02Y. Session: Fall Day.

ECON02F History of Economics I: Ancient to Karl Marx

Exclusion: ECO322. Prerequisite: ECON03Y or ECON04Y or ECON08Y or ECON09Y or ECON05Y or ECON06Y or ECON08Y (whichever is not used to satisfy the prerequisite).

ECON08Y European Economic History

Exclusion: ECO101, 201, 452. Prerequisite: ECON02Y. Session: Fall Day.

English (BA)

Faculty List

W.J. Howard, M.A., S.T.B. (Toronto), Ph.D. (London), Professor Emeritus
E.M. Brown, M.A., Ph.D. (New York), Professor
M.C. Cuddy-Krause, M.A., Ph.D. (Toronto) Associate Professor
J. Kay, M.A. (Glasgow), M.A., Ph.D. (Pennsylvania), Associate Professor
C. Leonard, M.A., Ph.D. (Texas), Ph.D. (Florida), Associate Professor
A.G. Paterson, M.A. (McGill), Ph.D. (Birmingham), Associate Professor
K. Thiel, M.A., Ph.D. (Yale), Associate Professor
E.P. Vicari, M.A., Ph.D. (Toronto), Associate Professor

Discipline Representative: E. Vicari (287-7134)

The study of English encompasses English, Canadian, and American literatures as well as other literatures written in the English language. The curriculum offers a broad range of courses designed to enable students to gain a comprehensive knowledge of a rich literary tradition. In addition, sequences of courses are available (in historical periods, in specific genres, in national literatures, and in particular authors) that allow students to pursue individual interests at greater depth. In all courses, emphasis is placed on close responsive reading, critical thinking, and clarity of expression.

The A-level course introduces all students to the study of English at the university level. The course is designed both for students planning a Specialist or Major Programme in English and for students having a general interest in the subject.

The English B0Y and B0ZY are required for all students planning a Specialist or Major Programme in English.

Other B-level courses require no prerequisite and are therefore available both to beginners and to more advanced students. C-level courses, as their prerequisites indicate, are designed to build upon previous work in English and presuppose some background in critical skills and some familiarity with the subject matter. D-level courses (which are equivalent to 400-level courses on the St. George Campus) 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 consult the prerequisites for C-level courses and when planning their individual programs, and to check with the Discipline Representative before taking courses on other campuses.

The Specialist programme in English offers an opportunity to develop skills in close responsive reading, critical thinking and clarity of expression. It encompasses the rich tradition of many literatures which use the English language as the medium of expression.

SPECIALIST PROGRAMME IN ENGLISH

Supervisor: D. Bennett

All full-course equivalents in English and two in other disciplines in the Division of Humanities or Social Sciences are required. They should be selected as follows:

1. ENGL11Y Reading Literature: The 20th Century
2. ENGL90Y Critical Thinking and Writing
3. ENGL92Y English Literature: Historical Survey
4. ENGL92F Literary Theory and Criticism
5. ENGL93Y Topics in Contemporary Literary Theory
6. Five additional full-course equivalents in English at the A-level, B-level, or C-level, including:
   a) two full-course equivalents in periods before 1800, one of which must be at the C-level (see list B)
   b) two full-course equivalents in periods after 1800, one of which must be at the C-level (see list B)
7. One further full-course equivalent in English at the D-level
8. Two further courses in the Division of Humanities or the Division of Social Sciences.

MAJOR PROGRAMME IN ENGLISH

Supervisor: D. Bennett

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

1. ENGL11Y Reading Literature: The 20th Century
2. ENGL90Y Critical Thinking and Writing
ENGA11Y Reading Literature: The 20th Century
Telephone ID #: 05511163
An introduction to literary and cultural concerns in the twentieth century through a study of selected works written in English, from the beginning of the century to the present day. Drawing on a range of works by men and women from different nationalities and backgrounds, we explore what is involved in the activities of reading and writing. How does the literature of this century both reflect and help to produce the complex realities of our world? What is the relationship between what we read and how we make sense of ourselves? The study of literature involves an examination of what it means to communicate and to interpret; it is therefore a preparation for reading and interpreting any kind of text, and a way of learning to organize and present one's thoughts effectively. A selection of written assignments will help students to develop essay writing skills.
Note: This course is designed to accommodate any student with an interest in reading at the university level. It is also the prerequisite to ENGLY, the required introductory course for majors and specialists in the English program.
Exclusions: ENGA001, ENGA002
Enrollment: 0
Course Co-ordinator: K. Theil
Offered: 1999/00

ENGO01Y Critical Thinking and Writing
Telephone ID #: 05520163
This reading poetry, essays and exams, we explore a variety of different approaches to literary texts, and study ways of communicating responses to literature clearly and effectively in writing.
This course encourages students to think about what makes writing enjoyable (aesthetics) and to develop their own preferences. It aims also to strengthen abilities in writing in general. In the first term we concentrate on vocabulary development and grammatical accuracy through various written exercises. To develop competence and confidence we study the act of rewriting. In the second term we focus on only one or two major works assignments will help students to develop their critical thinking and writing skills learned in the first term and act to consider a variety of critical approaches to the selected texts.
This course is required for majors and specialists in English.
Exclusion: ENGA001
Prerequisite: ENGA11Y
Enrollment: 0
Course Co-ordinator: A. Hembrow
Offered: 1999/99

ENGOY English Literature: Historical Survey
Telephone ID #: 05520063
A survey of English literature from the Middle Ages to the twentieth century, in the context of relevant intellectual, aesthetic, social, and political developments. Normally taken in conjunction with ENGB0Y.
This course provides a general introduction to the major periods of English literature history - the Medieval, Renaissance, Restoration, Eighteenth Century, Romantic, Victorian, and Modern periods. Reading will be extensive, involving broad selections from approximately fifty writers. The primary text is The Norton Anthology of English Literature (Fourth Edition), Vols. 1 and 2; further texts will be announced.
Note: This is exclusively a lecture and examination course. Students are advised to supplement this course with English B00Y in order to include group discussion, detailed textual study, and practice in essay writing in their study of English.
Exclusion: ENGA002
Enrollment: 0

ENGB00Y What is Culture?
Telephone ID #: 05520563
An exploration of the development and emergence of "culture" as a concept and 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 how can we discuss culture without reference to science and technology? What does a group's culture tell us about its social and political organization and its willingness to reach consensus and to accept and practice change?
Challenges to early definitions of culture as "the best that has been known and thought" may serve as a starting point for exploring the work of recent thinkers and the impact of ideas about culture in redefining the nature of English literary studies. Drawing on a wide range of materials - literary texts, film, videos, advertisements - the course will offer multi-cultural perspectives on such topics as contemporary media and communications, popular and commodity culture, drama, film studies and history of the cinema.
Enrollment: 0
Course Co-ordinator: T.B.A.
Offered: 1999/99

ENGB01Y Shakespeare
Telephone ID #: 05521063
A study of at least eleven plays by Shakespeare, both as unique works of art and in the larger context of his work as a Renaissance dramatist. A list of texts will be available in HS25A.
Exclusion: ENGO002
Enrollment: 0

ENGB02F Contemporary Literature in English: Africa and the West Indies
Telephone ID #: 05520053
A study of twentieth-century African and West Indian prose fiction.
Attention will be given to the cultural and political backgrounds as well as to the rhetorical traditions. The works of the most significant writers will be emphasized: e.g. Achebe, Soyinka, Harris, Nqqui, and others.
Enrollment: 0

ENGB02A Contemporary Literature in English: Australia and New Zealand
Telephone ID #: 05522153
A study of twentieth-century Australian and Indian prose fiction.
Attention will be given to the cultural and political backgrounds as well as to the rhetorical traditions. The works of the most significant writers will be emphasized: e.g. Rau, Jhabvala, Naipaul, Allingham, Kennedy, Growden, White.
Enrollment: 0

ENGB024 The Short Story
Telephone ID #: 05523453
An introduction to the short story as a literary form.
The course examines the special appeal of the short story for writers and readers, the particular effects it best
able to produce, and its origins and recent developments. The reading will be drawn from different countries and periods in order to explore the variety of possibilities within the form.
Exclusion: ENG213
Session: Sammar Evening
T.B.A.

ENG235 Children's Literature Telephone ID #: 05332553
An introduction to children’s literature.
This course will contextualize the field of children’s literature from the nineteenth century to the present within a larger social history which examines how children have been viewed in Western society. Within this framework, we will examine how children’s books are both the product of an individual writer’s creative psyche and an encoding of identifiable and evolving social attitudes about children, race, class, gender, behaviour, and nationality. A variety of theoretical approaches will be explored—psychoanalytic, feminist, reader response, cultural studies—and controversial issues, such as censorship, violence, sexism, and racism, discussed. The instructor will design assignment topics to suit the range of student interests and fields of study.
Exclusion: ENG244
Session: Winter Evening
T.B.A.

ENG235B Detective Fiction Telephone ID #: 05332553
An introduction to detective fiction.

ENG309 Creative Writing Telephone ID #: 05329063
An introduction to the writing of poetry and short fiction.

ENG321Y Prose and Poetry of the English Renaissance, 1500-1600 Telephone ID #: 05332663
The course will provide students with the experience of writing, discussing and revising their own work in a group setting. Exercises to be assigned will bear on formal questions of technique and form and there will also be discussion of the work of some contemporary writers and visitors by writers.
Limited enrollment: 16
Exclusion: ENG3369
Prerequisite: Permission of instructor. A short sample of creative writing should be submitted, normally by August 1 (call 287-7119 for further details).
Session: Winter Day
T.B.A.

ENG321Y Major American Authors Telephone ID #: 05311263
A class study of works by at least four and no more than six authors. The texts will be: Hawthorne, The Scarlet Letter and selected stories; Faulkner, Light in August; Sanctuary, Nathaniel West, A Cool Million, Miss Lonelyhearts; The Day of the Locust, Flannery O’Connor; Wodehouse and selected stories; Robert Frost, The Ultimate Good Luck.
Prerequisites: [ENG309Y & ENG320Y] or [ENG309Y]
Session: Winter Day
J. Key

ENG320Y The Victorian Telephone ID #: 05302063
Our Victorian texts will be drawn from a variety of forms—essay, novel, poem, tract—and will cluster around such competing Victorian concerns as the construction of class identities; the question of sexual differences and its relationship to social organization; ideas about childhood and how best to regulate it; prevailing notions of the primitive, savage and civilized; and the “engines” and its definition through representations of others; the distinction between “high” and “low” art. About 410 works by writers such as: Arnold Bennett, Barrett Browning, Robert Browning, Carlyle, Carroll, Beckett, the brothers, Darwin, Gaskell, George Eliot, Haggard, Hardy, Manley, Mantel, Newman, the Rossetti, Swinburne, Tennison, Wilde.
Prerequisites: [ENG309Y & ENG320Y] or [ENG309Y]
Session: Winter Day
T.B.A.

ENG320Y The Victorian Telephone ID #: 05332663
The course will provide students with the experience of writing, discussing and revising their own work in a group setting. Exercises to be assigned will bear on formal questions of technique and form and there will also be discussion of the work of some contemporary writers and visitors.
Limited enrollment: 16
Exclusion: ENG3369
Prerequisite: Permission of instructor. A short sample of creative writing should be submitted, normally by August 1 (call 287-7119 for further details).
Session: Winter Day
T.B.A.

ENG320Y English Literature of the Early Eighteenth Century Telephone ID #: 05335633
A study of English poetry, prose, and drama 1700-1750.
In this course we will study the cross-currents of a period in which a literary tradition essentially aristocratic and classical confronted a social structure and readership increasingly middle class. Among other subjects we will consider: the high satire of Pope and Swift; the growth of magazine writing; the changes and decline in drama because of government censorship; the rise of the novel; the close interconnection of literature with politics, morality and social values. To help understand the period there will be illustrated lectures on music, art and architecture.
Prerequisites: [ENG309Y & ENG320Y]
Session: Winter Day
J. Key

ENG325Y English Literature of the Late Eighteenth Century Telephone ID #: 05335733
A study of English poetry, prose and drama from 1750-1810.
Through a body of poetry, drama, journals, speeches, and excerpts from novels, we will try to understand the literature of the late 18th Century. Our concern will be with such topics as; the sense of sensibility; the impact of the American and French revolutions on writing; the nature of the sublime in writing; the city as focus and problem in literature; the growth of "irony"; the development of didactic poetry.

Lectures on music, art and architecture will help to understand the period.
Prerequisites: [ENG309Y & ENG320Y]
Session: Winter Day
J. Key

ENG305V Twentieth Century Drama Telephone ID #: 05350603
A study of developments in British, American and European drama in the twentieth century.
This course looks at the transformation and redefinition of drama in the last hundred years or so, through a concentrated study of modern and contemporary drama. We will explore the emergence of subgenres of drama like realism, expressionism, and theatre of the absurd, and the challenging of such categories by contemporary dramatic experiments. In the full term we will study plays that were challenging and innovative when first presented but are no "classics" of the theatre, including Osler’s The Wild Duck, Shaw’s Saint Joan, Pirandello’s Six Characters in Search of an Author, and O’Neill’s Long Day’s Journey into Night. In the spring term we will turn to works by playwrights who are still challenging readers and audiences with their dramatic experiments today, including Porter’s The Birthday Party, Shepard’s True West, Churchill’s Cloud 9, Thompson’s Lion in the Streets, and Taming of the Shrew.
Prerequisites: [ENG309Y & ENG320Y] or [ENG316Y] or [ENG316Y]
Session: Winter Day
K. Theil

ENG326Y Myth and History in Canadian Fiction Telephone ID #: 05352603
A study of poetry of several Canadian novels in the context provided by myth and history.

The course will examine the use of myth and history in the works of several Canadian fiction writers, and will also consider the function of myth in literature as the catalyst for the Canadian writer’s relation to tradition and the past; and the interplay between past and present. Canadian novels studied may include: Alice Munro, The Beggar Born; Rising, Sheila Watson, The Double Head; Mark Deveraux, The Diviners; Robert Kroetsch, Words of My Roaring and The Stadthaus Man, Robertson Davies, Fifth Business, Middletown; Richard, St. Urban’s Horseman; Michael Ondaatje, In the Skin of a Lion, Thomas
King, Green Grass. Running Water. Additional reading will include The Epic of Gilgamesh, The Odyssey, selections from the Bible, and The Waste Land, and selections from writers such as St. James Fraser and Northrop Frye.

Prerequisites: [ENG100Y & ENG100Y] or [ENG206 & one full-course equivalent in English]

Session: Winter Evening T.B.A.

ENG260Y7 Literature and Travel Telephone ID #: 05546368
A study of various forms of travel literature, including narratives of exploration and travel essays, the "international novel" and the "ethnochic novel," fiction of emigration/emigration, and "critical travel": texts which pose questions about crossing boundaries and encompassing otherness.

Travelling is exploration, an encounter with what we don't know, and therefore a challenge to the known boundaries of our own culture and selfhood. Travel has been represented both as a quest into the unknown and as a test of the known, since the way we describe the new or foreign land may tell us even more about the "here" than the "abroad." This course will raise questions about educational travel and our ability to describe and to "know" others; readings will cover a historical range from the "discoveries" of the "new world" in the Renaissance to the post-colonial educational travel and the emergence of the "exotic" in the eighteenth and Nineteenth Centuries, to a wealth of cross-cultural encounters in the Twentieth-Century. Texts will include Dante Alighieri, Robinson Crusoe, William Wordsworth, The Prelude (selections); Henry James The American; F.M. Powys, A Room With A View; Laurence Sterne, A Sentimental Journey; James Jackson Sibley, Across the Years from Persia to Bagdad; Audrey Thomas, Comes Down From Heaven.

Prerequisites: [ENG100Y & ENG100Y] or [ENG206 & one full-course level course in Humanities or Social Sciences]

Session: Winter Day M. Cuddy Keane

ENG270Y7 The Gothic Tradition Telephone ID #: 05547063
The Gothic tradition from the 1790's to the present. What are the cultural and historical origins for this genre with its striking presentation of insurmountable dangers and vengeful ghosts, violent storms, mad monks, live burials, secret passageways and sinister relatives? The Gothic tradition, like any replacing genre, established ways of exploring tensions relative to identity, fantasy, gender, death, political power, and fear of the unknown. The genre has proven capable of various mutations from its inception to the present day, allowing it to continue as a viable form of art even as those tensions shift and rearrange themselves from one generation to the next. We will examine both the established code of what constitutes the "gothic" and how later writers subverted or reinvented it. 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 as important and dominant a genre in the 1990's as it was in the 1790's? Texts and authors may include Wolfe, The Castle of Otranto; Radcliffe, The Mysteries of Udolpho; Le Fanu, C[laridge], Keats, Percy, "Nights'" Abbey; Browne, Jane Eyre; Hawthorne; Poe; Maturin; Stoker; Dunsled; Shelley, Frankenstein; Stevenson, Dr. Jekyll and Mr. Hyde; Cooper, The Rather Bride; Oates; O'Connor, Rice, Interview with a Vampire.

Prerequisites: [ENG100Y & ENG100Y] or [ENG206 & one full-course equivalent in English]

Session: Winter Day A. Hepburn

ENG280Y2 Literary Theory and Criticism Telephone ID #: 05546237
An introduction to literary theory. How has the concept of "literature" been defined? Do the texts that we regard as literature represent the ideas contained in them? How do they communicate with readers? Where does its value reside? The seminar assumes 8-10 of the following writers to see how important about literature have been variously framed and unanswered: Plato, Aristotle, Horace, Longinus, Sidney, Dryden, Pope, Johnson.

Prerequisites: [ENG100Y & ENG100Y] or three further full-course equivalents in English

Session: Winter Evening T.B.A.

ENG285Y5 Native Writing in North America Telephone ID #: 05546433
This course will attempt to outline the range of Native writing throughout North America. The emphasis of the readings will be on the post-60's renaissance of native literature and culture. Readings will be drawn from a variety of genres, including fiction, poetry, drama, and autobiography.

The course will be encouraged to engage with current issues in multi-culturalism: what are the poetics and politics of ethnocentrism? How does any group come to terms with its ethnocentric assumptions? What does it mean to either understand or appropriate another culture? How do those literary contributions to a reasserted nationalism? How do we pose questions of literary value and form conceptions of literature? Theorists such as Roy Harvey Pearson, Arnold Krupat, Gayatri Chakravorty Spivak, James Clifford, Clifford Geertz, and Linda H��shon will be used to clarify these questions. Native authors to be studied include: Black Elk, N. Scott Momaday, Louise Erdrich, Tonie Heyi, Leslie Marmon Silko, Daniel David Moses, E. Pauline Johnson, James Welch, Thomas King, Paula Gunn Allen, Simon J. Ortiz, Linda Hogan, Beatrice Culleton, Gerald Vizenor, and others. All the literature we read will be in English, but students should be aware that more than 125 Native American languages can be found in North America.

Limited enrolment: 24
Prerequisites: [ENG100Y & ENG100Y] or [ENG206 & one full-course equivalent in English] or permission of the instructor.

Session: Winter Evening T.B.A.

ENG290Y5 Renaissance Love Poetry Telephone ID #: 05547053
A condensation of the love poetry of Wyatt, Surrey, Sidney, Spencer, Marlowe, and Shakespeare.

The fourteenth to the seventeenth century is sometimes referred to as the "golden age" of erotic poetry in English. We shall be reading a variety of love poetry in its social and historical contexts, as we consider the psychology of "being in love," its quasi-religious status, and the ways in which we are perceived as "natural" feelings are culturally constructed and shaped into artistic forms.

Limited enrolment: 24
Prerequisites: [ENG100Y & ENG100Y] or three further full-course equivalents in English or [ENG32] Session: Winter Day E.F. Yeats
ENGRD 106 The Arthurian Legend in English Literature
Phone: 256-4813
The theme of King Arthur and the knights of the Round Table is set through several centuries in works of various genres. The legendary stuff of Arthur still has power to captivate writers and readers, and is the subject of books, poems, films, and plays in our own time. This course begins by looking at present-day recreations in such works as Camelot and T.L. White's The Once and Future King. From there it turns back to earlier renderings of the myth, beginning with medieval Celtic, English, and French treatments of "The Matter of Britain," and moving down to the Renaissance and Modern period. It attempts to relate these to historical facts and cultural ideals. The relevance and meaning of these legends for people of different periods will be a subject of inquiry.
Prerequisites: ENG 105 and two other full-course equivalents in English.
Session: Winter Day.
E. P. Vicari
Programme in French, the Major Programme in French Language and Literature and the Major Programme in French Language will no longer be offered. Students already enrolled in one of these programmes will be able to complete it, please consult the Supervisor of Studies for further information.

French studies normally begin with, FRE1A0, Language Practice I, which serves to consolidate previous knowledge, and is the prerequisite for more advanced courses in all areas. FRE1A0 is designed primarily for students with OAC French or equivalent competence. Those who have significant "immersion" or "enriched" high school experience, or who have native or near-native abilities in French, should consult the faculty member responsible for FRE1B0 or FRE3C05 about the appropriate entry course(s). Students without OAC French or equivalent are urged to obtain credit for FRE1C11Y (the equivalent of FRE1A0Y). Note that the Language Practice courses A10, A11, and C11-C25 must be taken in sequence. Normally, an A-level FREN course should not be taken at the same time as, or after, a B-level FREN course. Please do not hesitate to consult Programme Supervisors and other faculty members for further advice about course selection and programmes.

The College’s Study Elsewhere Programme offers ideal opportunities for students of French to earn academic credit while studying in another province or country. For further information about this programme and about Letters of Permission, please refer to “Study at Other Universities” in this catalogue, and speak to our Supervisor of Study Elsewhere.

Students must consult the Supervisor of Studies about possible exclusions if they are considering registering in French courses in the Faculty of Arts and Science (e.g. Geographe Environnement courses). Failure to do so may leave the student short a course for degree credit and thus delay graduation and increase tuition fees.

Note that a few of our courses (e.g. FRE610Y, B53, B85, BBM, BB5 and B88) are conducted in English, the exception of FRE605, readings and assignments for these courses are done in French by those who wish credit toward a French programme, and indeed some of those who wish general credit toward a degree.

2 Two full-course equivalents selected from the following: FREB35Y, FREB40Y, FREC30Y, FREC410Y
3 One full-course equivalent selected from the following: either FREB230Y or FREB235Y, FREB270Y, FREB290Y.
4 Three full-course equivalents in literature which must include: one full-course equivalent in French Canadian literature; one full-course equivalent in French literature (FREAS05 can fulfill this requirement); one half-course in French literature from other parts of the French-speaking world excluding France and Canada.

NOTE: French courses taught in English cannot count towards this requirement.

5 FREB11Y and FREC115Y. (FREB11Y ideally should be taken in second year to avoid timetable conflicts which might arise as a result of trying to schedule the critical component of the course.) (All of these courses are described in detail below.)

B. Ten further full-course equivalents: Students are advised to choose courses to suit the teaching programme and the teaching subjects in which they are interested. Information and advice will be available through the Programme Coordinator at Scarborough and through counsellors at the Ontario Institute for Studies in Education/University of Toronto (OISET). The following are recommended as general preparation for the Ontario Institute for Studies in Education/University of Toronto (OISE). B.Ed. Programme:
- a half-course in educational psychology
- a half-course in language acquisition
- a half-course in educational policy

Programme requirements
All programme requirements are, in years 3 and 4, to spend a period of one half-day per week engaged in a supervised classroom teaching experience. This experience will allow registrants to put into practice their understanding of the French language teaching methods presented in FREB11Y and FREC111. University of Toronto at Scarborough, in association with the Faculty of Computing and Information Technology of the University of Toronto (OISE), will arrange these practicum placements in local elementary and secondary schools.

MAJOR PROGRAMME IN FRENCH

Supervisor: L. Touchette / C. Caras

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

Students must complete seven full-course equivalents in French, including:
1. FREAS0Y and FREB10Y (except where the Supervisor of Studies permits substitution of one FREN course for students with special proficiency in the French language).
2. One further full-course equivalent in language:
   - Language courses are: FREB30Y, B570Y, B575Y, B585Y, B601Y, C01FS-C005Y, C09Y, C105Y, C245Y, C345Y.
   - One full-course equivalent in literature and/or culture:
     - Culture courses are: FREB220Y, B2250Y, B3250Y, B4250Y, B5250Y, B6250Y.

3. Three additional full-course equivalents in French.

Students may create a “classic” major in French Studies with a language and literature core by including FREAS0Y and two other full-course equivalents in literature and/or culture.

Those wanting a major with a business focus should include one full-course equivalent from FREC305Y as well as FREB10Y and FREB11Y in their programme.

Those wanting a major with an interdisciplinary focus should include one full-course equivalent from FREC305Y as well as one full-course equivalent from FREAS0Y as well as one full-course equivalent from FREC305Y as well as one full-course
equivalemt en français et en français canadien et phrasisen litteraire (FREASIT) service ce jour-ci et neuf heures et demie en français et en française canadienne et autres francophones cultures.

Those wishing a major avec arts et cultures breton should include two full-course equivalents in literature and culture, in addition to the courses used to fulfill requirement (3) of the major (students interested in this stream should consult the French Discipline Brochure for recommended courses).

NOTE: Only courses for which the student does assignments in French can be counted towards a French programme; at the A-level, only FREAS183 and FREAS85 may be counted.

The Supervisors of Studies will provide students who complete a major in any of these streams (French Studies, French and Business, International French Studies, French and the Arts) with a letter explaining their programme. Such a letter would be useful when applying for a job or for admission to a post-BA programme. (Students interested in graduate studies in French however, should be aware that they will need further course work in French.)

MINOR PROGRAMME IN FRENCH

Supervisors: L. Deboisse J. Curtis Students who complete four full-course equivalents (= 6 credits) in French, including FREAS183, FREAS85 and FREAS86 (FREAS107 or FREAS182). At least one P.C.E. must be at the B-Level.

MINOR PROGRAMME IN FRENCH FOR FRANCOPHONES

Supervisors: L. Deboisse J. Curtis Students in this programme must complete at least four full-course equivalents at the B- and C-Level, including FREAS183 and FREAS86. At least one P.C.E. must be at the C-Level.

FREAS10Y Language Practice 1 Telephone ID #: 06611053

FREAS10Z Language Practice 1 Telephone ID #: 06610532

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 exercises class and instructor may choose to devise. The class meets three times a week and, in addition, will do a fourth hour of speaking and listening with recorded materials. This course is a prerequisite for all B-level courses in the French discipline at University of Toronto at Scarborough except FREAS105. FREAS10Y is also a prerequisite for FREAS36.

FREAS85, FREAS86, FREAS88 and FREAS86 for students enrolled in a French Programme.

For students planning to specialize in French, FREAS10Y is recommended as a companion course.

Please refer to the Subject Head of French for details.

MINOR PROGRAMME IN FRENCH FOR FRANCOPHONES

Supervisors: L. Deboisse J. Curtis Students in this programme must complete at least four full-course equivalents at the B- and C-Level, including FREAS183 and FREAS86. At least one P.C.E. must be at the C-Level.

FREAS85 Language Practice 1 Telephone ID #: 06610532

FREAS86 Language Practice 1 Telephone ID #: 06610532

A study of representative works from major periods and areas of the literature of the francophone world. FREAS10Y will introduce students to the thoughtful reading of literary texts in French. Students will be encouraged to acquire the basic vocabulary and techniques necessary to study literature and to develop their essay-writing skills in French. This course is recommended both for students intending to major or minor in French and for those students interested in enhancing their reading, writing, and speaking skills in French. The class will meet for three hours each week for lectures and discussions conducted in French.

FREAS86 Language Practice 1 Telephone ID #: 06610532

This course is concerned with the development of French, accuracy of expression, and style, through the study of grammar, composition, oral practice, readings. Course work can be supplemented by computer based language programmes. Audio and video tapes are available in the Resource Room.

Exclusion: FREAS85, native proficiency in French; ESL822k

Prerequisite: FREAS183 (FREAS86 or equivalent).

Session: Winter Day

L. Deboisse and Staff


FREAS11Y 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 place in local elementary and secondary schools throughout the duration of the course. Enrollment is limited to students already admitted to the Education of Teachers in French Programme.

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

Prerequisite: FREAS10Y (FREAS86 or equivalent)

Session: Winter Day

A. Gagge

Offered: 1996/97

FREAS11Y Intermediate Conversation Telephone ID #: 06612733

An introduction to the spoken language through controlled situational oral work and discussion groups. Attention will be given to the comprehension of such major regional variants as those found in the province of Quebec. As many opportunities as possible will be provided to practice the language and develop a mastery of relevant vocabulary so that students may acquire a reasonable degree of confidence when speaking about everyday life and contemporary topics.

Exclusion: ESL203

Prerequisite: FREAS183 (FREAS86 or equivalent)

Session: Winter evening

S. Mittel

Credit for FREAS11Y is also available in the summer under Study Elsewhere.

FREAS19Y Commercial French Telephone ID #: 06621863

The French language in a commercial or economic context.

Class 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 Brossard and El-Rayess: Pratique des affaires et correspondance commerciale en francais.

Exclusion: ESL206

Prerequisite: FREAS10Y (FREAS86), or permission of the instructor.

Session: Winter Day

W.J. Bancroft

FREAS25Y Introduction to French Linguistics Telephone ID #: 06622563

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. This course will analyze the production of practical applications of linguistic analysis to the teaching/learning of French as a second language.

Exclusion: FRE227

Prerequisite: FREAS10Y (FREAS86 or equivalent).

Session: Winter Day

P. Rolett

Offered: 1996/97

FREAS27Y 20th-Century France Telephone ID #: 06622733

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 and its relations with North America, the European Community and the Third World; the main artistic and intellectual currents; the media; the
FREB837 Cultural Identities and Stereotypes in the French-Speaking World
Telephone ID #: 06628339

The birth and development of late twentieth-century perceptions of "us" and "them" in France and the francophone world.

In this course we will examine how language and culture affect how we see ourselves and others, and explore various interpretations of cultural "authenticity." Imaginary constructs and stereotypical representations of "others" to be considered include the noble savage, the foreigner, the country bumpkin and the Gallic sophisticated.

Lectures and discussions will be in English and film materials provided with subtitles. Students wishing credit in French programmes will be expected to do readings, papers, tests and a final examination in French.

Exclusion: None
Prerequisite: FREA107 (FREB60) or equivalent
Session: Winter Evening
S. Mutter
Offered: 1998/99

FREB664 Before the Revolution
Telephone ID #: 06625849

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.

Successors: The world of the Stuart era, the French revolution and the Napoleonic era.

Exclusion: None
Prerequisite: FREA107 (FREB60) or equivalent
Session: Winter Day
P. Magnier
Not offered: 1998/99

FREB285 The Francophone World
Telephone ID #: 06622853

An examination of historical, political and cultural realities in the French-speaking Western India, Europe, Africa and South-East Asia.

Topics to be discussed will include slavery, colonization, decolonization and multi-culturalism. 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.

Exclusion: FREB252, 253
Prerequisite: FREA10 (FREB60) or equivalent, or permission of instructor.
Session: Winter Day
S. Mütter
Not offered: 1998/99

FREB135 Francophone Literature
Telephone ID #: 06622553

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 and Switzerland.

Exclusion: FREB164
Prerequisite: FREA10 (FREB60) or equivalent
Complementary: FREA50 or FREB50
Session: Winter Day
P. Magnier
Not offered: 1998/99

FREB136 Drama and History in Nineteenth Century Quebec
Telephone ID #: 06622953

Major plays from 19th-century Quebec in English translation, studied in their historical and social contexts.

The focus of this course will be an exploration of the dramatic plays chosen for their historical, political, social and literary significance in the evolution of a French-Canadian sense of identity. Readings will include selections from contemporary historians and essayists, and from recent scholars in the field of social history. Lectures and all major reading materials will be in English.

Session: Winter Day
L. Doucet
Not offered: 1998/99

FREB485 Theological and Practical Phonetics
Telephone ID #: 06623467

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 required. D. Damasen, Sente Direz, Cours de Phonétique et de Prononciation.

Not normally open to native speakers of French. Individual cases should be discussed with the instructor.

Exclusion: FRE277
Prerequisite: FREA107 (FREB60) or equivalent
Session: Winter Day
C. Bertrand-Jennings
Offered: 1998/99

FREB106 French and Francophone Fiction and Film
Telephone ID #: 06623839

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 probably be selected from among the following: Le Rouge et le Noir, Madame Bovary, Les Truites Meurtrières / The Three Musketeers, L'Armagnac / Gervaise, Journal d'un Curé de Campagne, La Cloche de Mon Père, La Rue Casse-Nez, Maria 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 credit for French

programs, however, will be required to do readings, essays (1, 2, 3, 4) and exam in French.

Prerequisite: FREA107 (FREB60) for students enrolled in French programmes or three full A-level courses or permission of the instructor.

Complementary: None
Session: Winter Evening
S. Mutter
Offered: 1998/99

FREB105 Advanced Written French
Telephone ID #: 06623013

The purpose of this course is to improve the students' ability to understand and write text of various genres.

The course will focus on acquiring the appropriate means of expression, through practice in text summaries, composition, error analysis and review of specific points in grammar and style.

Exclusions: FREN102
Prerequisite: FREA107 or equivalent
Session: Winter Day
S. Mütter
Offered: 1998/99

FREB105 French and Francophone Fiction and Film
Telephone ID #: 06623839

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 probably be selected from among the following: Le Rouge et le Noir, Madame Bovary, Les Truites Meurtrières / The Three Musketeers, L'Armagnac / Gervaise, Journal d'un Curé de Campagne, La Cloche de Mon Père, La Rue Casse-Nez, Maria 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 credit for French

programs, however, will be required to do readings, essays (1, 2, 3, 4) and exam in French.

Prerequisite: FREA107 (FREB60) for students enrolled in French programmes or three full A-level courses or permission of the instructor.

Complementary: None
Session: Winter Evening
S. Mutter
Offered: 1998/99

FREB105 Advanced Written French
Telephone ID #: 06623013

The purpose of this course is to improve the students' ability to understand and write text of various genres.

The course will focus on acquiring the appropriate means of expression, through practice in text summaries, composition, error analysis and review of specific points in grammar and style.

Exclusions: FREN102
Prerequisite: FREA107 or equivalent
Session: Winter Day
S. Mütter
Offered: 1998/99

FREB105 French and Francophone Fiction and Film
Telephone ID #: 06623839

A study of some important works of French and francophone fiction and their cinematic counterparts.

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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 probably be selected from among the following: Le Rouge et le Noir, Madame Bovary, Les Truites Meurtrières / The Three Musketeers, L'Armagnac / Gervaise, Journal d'un Curé de Campagne, La Cloche de Mon Père, La Rue Casse-Nez, Maria 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 credit for French

programs, however, will be required to do readings, essays (1, 2, 3, 4) and exam in French.

Prerequisite: FREA107 (FREB60) for students enrolled in French programmes or three full A-level courses or permission of the instructor.

Complementary: None
Session: Winter Evening
S. Mutter
Offered: 1998/99

FREB105 Advanced Written French
Telephone ID #: 06623013

The purpose of this course is to improve the students' ability to understand and write text of various genres.

The course will focus on acquiring the appropriate means of expression, through practice in text summaries, composition, error analysis and review of specific points in grammar and style.

Exclusions: FREN102
Prerequisite: FREA107 or equivalent
Session: Winter Day
S. Mütter
Offered: 1998/99

FREB105 French and Francophone Fiction and Film
Telephone ID #: 06623839

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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 credit for French

programs, however, will be required to do readings, essays (1, 2, 3, 4) and exam in French.
Theoretical and practical sessions are conducted in French.
Exclusion: FRE1048
Prerequisite or Corequisite: One full course from the sequence FREC01-C05
FREC105
Session: Winter Day
W. J. Bancroft
Not offered: 1998/99
FREC105F The Literature of French
Canada II: Special Topics - Feminism in
Contemporary Quebec Literature
Telephone ID #: 06633833
Feminism in Contemporary Quebec
Literatures.
The development of feminist
consciousness in Quebec since the mid-
1970's. Seminar-discussion, with
various options for individual evaluation
of students. Tertia by D. Bouchez,
M.-C. Blais, R. Bourget, L. Doinand,
L. Guilbeault, Marie Laberge, J. Marcheussault
and others.
Prerequisite: one B-level course in group
FREB10-FREB11, except FREB17, FREB18, or permission of instructor
Pre- or Corequisite: FREAS0 or
FREB15/FREB15/8 or permission of instructor
Session: Winter Day
L. E. Moncrief
Not offered: 1998/99
FRED02F FRED02S FRED04 FRED05 FRED05F FRED07F FRED07Y Supervised Reading
These courses offer the student an
opportunity to carry out independent
study of an advanced and intensive kind,
under the direction of a faculty member.
Student and instructor work out in
consultation the course's objectives,
content, bibliography, and methods of
approach. The material studied should
bear a clear relation to the student's previous
work, and should differ significantly in content and/or
concentration from topics offered in
regular courses. In applying to a faculty
supervisor, students should be prepared to present a brief written statement of the
topic they wish to explore. Final
approval of the project rests with the
French Discipline.

Students are advised that they must
obtain consent from the supervising
instructor before registering for these
courses. Interested students should
contact the Discipline Representative or
Supervisor of Studies for guidance.
Prerequisite: One B-level course in the
group FREB10-FREB11 (FREB81), except
FREB17, FREB18.
Session: Winter Day
Offered every year
Courses Not Offered in 1997/98
FRED15F Text and Performance
Exclusion: FREQ55H
Prerequisite: FREAS0 or equivalent
Offered: 1998/99
FRED15Y Teaching Children's
Literature in French
Prerequisite: FREAS0 or equivalent
Offered: 1998/99
FRED22F The Literature of French
Canada I: Exclusion: FREB10-FREB11
Prerequisite: FREAS0 or equivalent
Offered: 1998/99
FREB37F The Literature of French
Canada II: Exclusion: FREB10, FREB11,
FREB19, FREB32
Prerequisite: FREAS0 or equivalent
Corequisite: FREAS0 or (FREB35H or
FREB35Y or permission of instructor)
FREB37Y Comparative Stylistics
Exclusion: FREB13, FREC39, FREC31
Prerequisite: FREAS0 or equivalent
Corequisite: FREAS0 or (FREB35H or
FREB35Y or permission of instructor)
FREC10S French Theatre in the 20th
Century: Exclusion: FREB10-FREB11
Prerequisite: One B-level course in the
group FREB10-FREB11, except
FREB17, FREB18
Corequisite: FREAS0 or permission of instructor
General History of the
French Language
Exclusion: FREB10-FREB11
Prerequisite: One B-level course in the
group FREB10-FREB11, except
FREB17 and FREB18 or permission of the
instructor
FREC45F The French Language in
Canada
Exclusion: (FREC43), FREB17, FREB18
Prerequisite: One B-level course in the
group FREB10-FREB11, except
FREB17 and FREB18 or permission of the
instructor
Offered: 1998/99
FREC45S Special Topics
Prerequisite: One B-level course in the
group FREB10-FREB11, except
FREB17 and FREB18 or permission of the
instructor
FREC40F French Theatre in the 20th
Century
Exclusion: FREC39, FREC31, FREC33
Prerequisite: One B-level course in the
group FREB10-FREB11, except
FREB17, FREB18
Corequisite: FREAS0 or permission of instructor
General History of the
French Language
Exclusion: FREB10-FREB11
Prerequisite: One B-level course in the
group FREB10-FREB11, except
FREB17 and FREB18 or permission of the
instructor
FREC45F The French Language in
Canada
Exclusion: FREB10-FREB11
Prerequisite: One B-level course in the
group FREB10-FREB11, except
FREB17 and FREB18 or permission of the
instructor
Offered: 1998/99
FREC45S Special Topics
Prerequisite: One B-level course in the
group FREB10-FREB11, except
FREB17 and FREB18 or permission of the
instructor
FREC30Y Comparative Stylistics
Exclusion: FREB13, FREB17, FREC39
Prerequisite: FREAS0 or equivalent
Corequisite: FREAS0 or (FREB35H or
FREB35Y or permission of instructor)
FREC10S French Theatre in the 20th
Century: Exclusion: FREC30, FREC31, FREC33
Prerequisite: One B-level course in the
group FREB10-FREB11, except
FREB17, FREB18
Corequisite: FREAS0 or permission of instructor
Faculty List
J.R. Miron, B.A. (Queen's), M.A.,
(Penn.), M.Sc., Ph.D. (Toronto),
Professor
E. Reif, B.A., M. Phil. (London), Ph.D.
(Toronto), Professor
M.P. Dunn, B.A., Ph.D. (Sheffield),
Associate Professor
Discipline Representative
Supervisor of Studies: John Miron (287-7311)
Geography is a broad-ranging subject.
As a social science it is concerned with the spatial patterns of human activity and
the character of regions and places. As an earth and environmental science it deals with the physical processes of the earth's surface and its atmosphere. It is a subject which is excellently placed to explore the complex relationships between society and the natural environment as well as the social and economic problems of human land use and settlement. The Geography Programmes at Scarborough focus on the cultural, economic, political and social aspects of the subject, with particular emphasis on applications to development, planning and environmental management. They therefore complement other programmes such as: Environmental Science, Political Science, Sociology, Anthropology, Economics and Development Studies. Geography courses are also listed as options in several College Programmes including Environmental Science and the Co-op Programmes in Administration and International Development.

**SPECIALIST PROGRAMME IN GEOGRAPHY**
The Specialist Programme in Geography has been withdrawn. Students currently registered in the Programme will be able to complete it. Please consult with the Supervisor of Studies.

**MAJOR PROGRAMME IN GEOGRAPHY**
The requirements for this Programme are seven full-course equivalents in Geography, which includes:
1. GGRA07Y (GGRA07S)
2. At least two full-course equivalents in Geography at the C-level or D-level.

**MINOR PROGRAMME IN GEOGRAPHY**
The requirements for this Programme are four full-course equivalents in Geography which must include one full-course equivalent at the C-level or D-level. SOST01FYS may be counted towards the requirements of this programme.

**NOTE:** Students registered at University of Toronto at Scarborough prior to the 1993-94 session may count all R81 courses previously listed as GGR courses towards the fulfilment of Specialist and Major Programmes.

**GGRA07Y Global Change: Geographical Perspectives**
Telephone ID #: 06910463
An introduction to the geographical patterns, processes and relationships which underlie current global trends. It examines the ways geographical theories and methods can inform our understanding of the cultural, economic, environmental, political and social changes that flow from globalisation, and how these affect the nature and quality of human life and the natural environment from the household scale to the global scale. Particular emphasis will be placed on the sustainability of these changes.
This course is aimed at all students who are concerned and wish to learn more about the state of the world. Two hour lectures, and one hour tutorial.
Exclusion: GGR1101
Session: Winter Day
M. Dance / E. Relph

**SOST015 Geographic Information Systems (GIS) and Empirical Reasoning**
Telephone ID #: 41410155
Introduction to Geographic Information Systems (GIS) and its application to empirical inquiry within the Social Sciences.
This course is divided into three sections. In the first section, students review notions of theory and model, dependence and causation, induction and deduction, map as model, and the roles of space, place, location, and metrice in our understanding of social processes. Case studies are used to explore these ideas, and the history and development of GIS is briefly described. In the second section of the course, students are introduced to basic processes, approaches to the structuring of spatial data, data sources and their geographical representation, GIS components, tools and applications, spatial data transfer and data accuracy. In the third section, students learn about empirical methods in spatial analysis and exploration. These include data measurement, basic statistical processing, and intelligent GIS. Six analytical consults are discussed: ecological fallacy, the modeifiable areal unit problem, the boundary problem, spatial interpolation, spatial sampling, and spatial autocorrelation.
Exclusion: This is intended to be a first course in GIS. Students may not enrol in this course if they have already completed any other university-level course in GIS. e.g. EDS030H.
Session: Winter Day
J. Miron

**GGR8110 Issues in Environmental Conservation**
Telephone ID #: 06920153
Problems of resource use and environmental management with specific reference to Canadian resource development policies and environmental management strategies. The course deals with issues of resource/environmental management that are of current importance in the Canadian environmental and political scene. It incorporates resource management theory but examines it in the context of the history and development of specific resource problems such as: the commercial extraction of resource stocks; land rights conflicts, and global agreements on forestry management practices.
Exclusion: GGR233
Prerequisite: GGRA07Y or alternative prerequisite with permission of instructor.
Session: Winter Day
T. B.A.

**GGR845Y Urban Geography**
Telephone ID #: 06920563
This course will develop understanding of the geographic nature of urban systems and the internal spatial patterns and activities in cities. Particular emphasis is placed on the North American experience, although some examples will be drawn from other regions of the world. The course will explain the location and growth of cities; explore the internal organization of cities, especially with regard to residential, social and economic activities; and shed light on the major issues and problems facing contemporary urban society.
Exclusion: GGR124
Prerequisite: GGRA07Y or alternative prerequisite with permission of instructor.
Session: Winter Day
T. B.A.

**GGR8505 Planning in Canada**
Telephone ID #: 06920633
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 practised, and introduces students to the principal tools used by planners.
Three hours of lecture a week.
Session: Winter Day
J. Miron

**GGR913F Modern Urban Landscapes**
Telephone ID #: 06920173
An examination of the appearance of modern cities. Two key questions are considered. How have cities come to look as they do? What can be learned about modern societies by studying their visual environments? A major part of the course is a survey of the history of architecture and urban planning from about 1880 to present that is from the industrial era, through modernism to post-modernism. Assignments will emphasize methods for the observation, analysis and graphical presentation of urban land uses, activities in public spaces and built forms.
Prerequisite: GGRA07Y or any other A-level course, with permission of instructor.
Session: Winter Day
T. B.A.

**GGR917T Rural Land Use Studies**
Telephone ID #: 06921733
The study of patterns and processes of rural land use. Emphasis will be placed on the nature and impact of recent changes in the agricultural, residential and recreational use of rural land. Lectures and readings will survey the main land use theories and some of the recent empirical studies of land use change, drawing examples from different parts of the world. Particular attention will be paid to the problems of describing and analyzing rural land use change, and its effect on rural economy and society. A two-hour lecture each week.
Prerequisite: GGRA07Y or alternative prerequisite with permission of instructor.
Session: Winter Day
M. A.

**GGR927G Location and Spatial Development**
Telephone ID #: 06922733
Application of competitive location theory to explain economic landscapes. Topics include market rents and spatial equilibrium, trade flows and spatial price equilibrium, geographic market areas and spatial pricing policies, location of a firm with mobile resources, and trade theory and regional specialization. Three hours of lecture per week.
Exclusion: GGR220 (HSS927)
Prerequisite: ECOC062Y
Session: Winter Day
J. Miron
GGRGCIUF Urban Residential Geography
Telephone ID: 09053463
Micro and macro perspectives on urban residential geography. Prerequisite to this course with an emphasis on North American Cities. At the micro level, topics include the search and location behavior of individuals and families as consumers of housing, and suppliers of labor and domestic production. At the macro level, topics include commuting, social ties, neighborhood environments, structure and segregation, changes in the social and physical structure of neighborhoods. In light of these the course will examine the changing role of land use planning and public policy. Three hours of lectures per week.
Prerequisite: University level half course in data analysis (e.g. STA322) and one of GGRB30Y, GGRB30F, GGRB27F, POL90Y
Session: Winter Day
T.R.A.

GGRGC2G7 Countryside Conservation
Telephone ID: 06937073
The problems and policies of countryside conservation in Western Europe and North America. Particular attention will be paid to the origin of conservation and preservation attitudes in the rural and human landscapes of rural areas, and to their impact on rural planning. Topics will include urban containment, agricultural land preservation, land protection, conservation of natural environments and rural heritage, and the management of countryside conservation areas. Field work and case studies will be an integral part of the course.
Prerequisite: One of GGRB30L, GGRB37 or ESCR33
Session: Winter Day
M. Rance

GGRGC1V Development and Planning of Metropolitan Regions
Telephone ID: 06931333
An advanced analysis of the effects of growth of metropolitan regions, its causes, efficient urban scale, social goals and planning, public policy issues, as well as the tools, roles and impacts of public planning policies. Course examines insights gained from contemporary empirical research. Three hours of lectures per week.
Prerequisite: University level half course in data analysis (e.g. STA322) and one of GGRB05, GGRB08, GGRB27, ECOB03
Session: Winter Day
J. Miram

GGRGCIUF The Greater Toronto Area
Telephone ID: 06931333
Processes and issues of urban change, growth and planning in the Toronto region. Planning practices and proposals at the local level and the regional scale will be examined critically. Current trends in population, urban form and structure, and urban design in the Great Toronto Area will be compared with other rapidly changing urban regions in North America and elsewhere.
Prerequisite: GGRB05 and GGRB13
Session: Winter Day
T.R.A.

GGRGC2F Current Topics in Human Geography
Telephone ID: 09053413
Examination and discussion of current trends and issues in human geography, with particular emphasis on recent developments in concepts and methods. Specific content will vary from year to year. Seminar format with active student participation. Two hours each week.
Limited enrollment: 30
Exclusion: ESCR33
Prerequisite: GGRB40Y & one B-level full-course equivalent in Human Geography Session: Winter Day
T.R.A.

GGRGC1F Social Geography
Telephone ID: 06931333
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 an important, interrelated role in the geographies of cities and regions. Space is not only the scene 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 geographic literature published as North America and Britain. Enrolment limit 30.
Prerequisite: GGRB05 or another Social Science or Women's Studies B-level course with permission of Instructor.
Session: Winter Day
T.R.A.

GGRGDIUY 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. Frequent discussions with the supervisor are expected. Research may be based on library or archival investigations, field studies, laboratory experiments, the analysis of census or other published data, or some combination of these. Evaluation will be based on (1) an extended proposal or progress report submitted on or before October 31, value 20 per cent of final grade; (2) a complete draft of the final report submitted on or before February 26, value 20 per cent of final grade; and (3) a written report or dissertation of professional quality in its presentation, submitted on or before March 31, value 60 per cent of final grade. The final report will be evaluated at least two members of faculty and the student may be asked to defend it at an oral examination.
Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusion: GGRG031
Prerequisite: (Any 200 full-course equivalents including at least five equivalents in Geography)
Session: Winter Day
Staff

Courses Not Offered in 1997/98
GGRG0FYS Women and the City
Prerequisite: GGRB05 or B-level course in Women's Studies
GGRGC1FS Urban Political Geography
Prerequisite: One of GGRB05Y, GGRB17FS or ESCR13N8
GGRGC1FS Urban Transportation Policy Analysis
Exclusion: GGRD34
Prerequisite: University level half course in data analysis (e.g. STA322) and one of GGRB05Y, GGRB08FS, GGRB27FS, POL90Y

GGRGDIUY 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. Frequent discussions with the supervisor are expected. Research may be based on library or archival investigations, field studies, laboratory experiments, the analysis of census or other published data, or some combination of these. Evaluation will be based on (1) an extended proposal or progress report submitted on or before October 31, value 20 per cent of final grade; (2) a complete draft of the final report submitted on or before February 26, value 20 per cent of final grade; and (3) a written report or dissertation of professional quality in its presentation, submitted on or before March 31, value 60 per cent of final grade. The final report will be evaluated at least two members of faculty and the student may be asked to defend it at an oral examination.
Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusion: GGRG031
Prerequisite: (Any 200 full-course equivalents including at least five equivalents in Geography)
Session: Winter Day
Staff

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

Greek and Roman History
Please see courses listed under Classics under 17
History (B.A.)

Faculty List
J.S. Moir, M.A., Ph.D. (Toronto), D.D. (Presbyterian College, Montreal), Professor Emeritus
B.W. Dowler, A.M. (Harvard), Ph.D. (London School of Economics), Professor
M. Edey, B.A. (Toronto), B.Phil., D.Phil. (Oxon), Professor
M. Gervers, M.A. (Ottawa), Ph.D. (Toronto), Professor
L.J. Alyea, M.A. (McMaster) M.Phil., Ph.D. (Yale), Associate Professor and Chair
W.M. Dick, M.A. (Edinburgh), Ph.D. (Toronto), Professor
P. Iacovetta, M.A., Ph.D. (York, Canada), Associate Professor
J.I. Peal, M.A., Ph.D. (Northwestern), Associate Professor
L.R. Robertson, M.A., Ph.D. (Toronto), Associate Professor
A.N. Steep, M.A., Ph.D. (Toronto), Associate Professor

Discipline Representative:
L.R. Robertson (287-7145)

The study of history is intended to enhance our understanding of human society by examining the experiences of particular peoples and their societies in the past. Its findings depend upon the precise evaluation of specific evidence. History's concerns and goals are humanistic: its methods draw from all forms of scholarly endeavour. History, therefore, can play a part in a number of interdisciplinary programmes and can serve as an adjunct to courses in Political Science, Philosophy, Literature, Economics, Sociology, and Anthropology. History can also be used in combination with language study. The History curriculum combines a variety of approaches and teaching in order to satisfy a number of purposes. History 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 (HRS1010-05) provides a comprehensive foundation of knowledge in their particular areas. In upper-level courses students investigate specific areas, periods, or problems. D-series courses are conducted as seminars.

SPECIALIST PROGRAMME IN HISTORY

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

1 Number of Courses

Students must complete at least ten full-course equivalents in History. These ten must include HRS400Y (or HRS401Y) and five upper-level full-course equivalents (CD-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-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:

- Canadian
- American
- Medieval
- European
- African, Latin American, Asian

b. Ancient Greek and Roman

Students must complete at least one course in Canadian History.

MINOR PROGRAMME IN HISTORY

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

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

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

HRS1010 The Twentieth Century World
Telephone 287-7145
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
Session: Winter Day T.B.A.

HRS2030 British from the Eighteenth Century to the Present
Telephone 287-7145
An examination of the political, social, economic, and religious forces which transformed an agrarian society into an industrial power, and of the measures for the decline of British power in the twentieth century.

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 idea of the Enlightenment into one committed to that of evangelical humanitarianism. It will also consider why, as the twentieth century, the British abandoned their imperial role and concentrated on the establishment of a welfare state.

Exclusion: HIS239
European Area
Session: Winter Day, Summer Evening T.B.A.

HRS2040 History of the United States
Telephone 287-7145
Major themes from the Revolution to the present.

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

Exclusion: HIS271
American Area
Session: Winter Day
A.N. Steep / W.M. Dick

HRS2045 Canadian History
Telephone 287-7145
The history of Canada from the first European contacts to the present.

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

Exclusions: HIS240, 261, 262, 263
Canadian Area
Session: Winter Day
L.R. Robertson

HRS2050 Europe in the Middle Ages
Telephone 287-7145

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

The object of the course is to familiarize students with the foundations of...
HSSB07V Russia from the Sixteenth Century to the Present
Telephone ID: 0753207563
The Russian people, state, and culture, with emphasis on the major social, institutional, and ideological changes from the rise of Moscow to the present. Wherever possible readings have been selected from primary source materials so that students will become acquainted not only with the facts but with the flavour of Russian history. Lectures and discussion.
Exclusion: HSS250
0.5 Pre-1815 credit
European Area
Session: Winter Day
M. Govesa

HSSB07Y Modern Europe
Telephone ID: 0753206063
A survey of European developments, social, cultural, economic, and political since the French Revolution. Major themes will include: revolution, industrialization, nationalism, imperialism, war, science, technology, art, and literature.
Exclusion: HSS214Y, HSS241, 242
European Area
Session: Winter Day
M. Ertzina

HSSB105V Africa in the Twentieth Century
Telephone ID: 0753210553
An introduction to the late colonial and post-colonial periods in African history, primarily Sub-Saharan and southern African societies and cultures. The main topics will include: population movements, trade and technology, interactions between African countries and the industrial West, religion and culture as social and political forces, colonial domination and resistance, economic changes and modern nation-building.
Exclusion: HSS105Y, HSS105Y/S, HSS395
African, Latin American, Asian Area
Session: Winter Day, Summer Seminar T.B.A.

HSSC101Y The Sense Since 1550
Telephone ID: 0753105153
An exploration of changing definitions of the senses from late antiquity to the Renaissance to the present. This course will include changes in expectations for men and women in their domestic, social, and political roles (with the latter including education, employment, politics, and war); relations between the senses; feminism and anti-feminism. The focus will be on the literature, Western Europe, and Canada, and on the ninth, tenth, and twentieth centuries. Lectures and discussion: three hours.
Exclusion: (HSS101Y) HSS101
Prerequisite: One of (HSS201Y) HSS201Y, HSS203Y, HSS204Y, HSS205Y, HSS206Y, HSS207Y, HSS208Y (HSS201Y)
0.5 Pre-1815 credit
Session: Winter Evening
L.J. Abrey

HSSC11Y Europe from Reformation to Revolution 1550-1789
Telephone ID: 075311163
The development of French politics and society from the wars of religion to the reign of Louis XVI.
This period is characterized by rapid, often traumatic change in which France forcefully asserted itself as the principal power on the European continent. Special consideration will be given to the relations between political developments and social, religious and intellectual phenomena. One two-hour lecture and one tutorial session per week.
Exclusion: (HSS125Y) HSS328
Prerequisite: Any B-level full-quarter equivalent
Pre-1815 credit
European Area
Session: Winter Day
T.B.A.

HSSC115Y Revolutionary America, 1770-1790
Telephone ID: 075314535
A seminar investigating the origins, causes and effect of the American Revolution. All will be paid to the social and political organization 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: (HSS343Y) HSSC12Y, HSS332Y
Prerequisite: Any one of HSS102Y or HSS201Y or HSS205Y
0.5 Pre-1815 credit
American Area
Session: Winter Day
A.N. Shef

HSSC12Y Twentieth-Century America
Telephone ID: 07532553
A topical study of the United States since the turn of the century.
This course will cover the culture of individual opportunity and national institutions from the problems created by urbanization, ethnicity, industrialization, and world power. The tensions created by the appearance of large-scale organization, by the expansion of governmental power, by demands for social justice, and by the changing role of the U.S. in world affairs are the themes of this course.
Exclusion: (HSS215Y) HSS272Y
Prerequisite: HSS210Y
A.M. Area
Session: Winter Day
W. Craft

HSSC49F Immigrants and Race Relations in Canadian History
Telephone ID: 07534533
The history of immigrants, immigration policy, and race relations in Canada from the European-Native contact period to the post-World War I era. Organized partly chronologically and partly by theme, the
lectures and reading material will introduce students both to the perspectives and methodologies of the field and to the diversity of the ethnocultural experience in Canada. Immigrants' lives as pioneer farmers, male journeymen, industrial workers, domestics, entrepreneurs, radicals, and as members of families are considered. The course highlights the experiences of such groups as Canada's first peoples, the farmers, Irish, West Coast Asians, continental Europeans, and American and West Indian Blacks.

Prerequisite: HIS304
descriptive Canadian Area Session: Winter Day T.R.A.

HISC46Y Atlantic Canada
descriptive Telephone ID #: 07534663
The Maritime provinces and Newfoundland from the origins to the present.
Subjects include the following: First Nations and the impact of European contact; French regime and the development of a distinctive Acadian people; British settlement; responses to the American Revolution; the Loyalists; colonial economics and social structures; ethnic minorities, including Black Maritimers; literary and intellectual developments; struggles for responsible government, and its eventual loss in Newfoundland: Confederation; economic development in the late 19th century; immigration; women's history; the development of underdevelopment in the region, and the search for solutions. One two-hour lecture each week, plus tutorials. Written work will include two research papers.
Exclusion: HIS346 (HIS468
Prerequisite: HIS104 0.5 Per 1815 credit
Canadian Area Session: Winter Evening L.R. Robertson

HISC46S Black Canadian History, 1600-1919
descriptive Telephone ID #: 07534653
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 I, 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 anti-slavery movements, and Caribbean immigration, the growth and development of Canada's black communities, and their religious, educational, and political experiences and institutions.
Prerequisite: HIS304Y
descriptive Canadian Area Session: Winter Day T.R.A.

HISC79S Social History of Revolutionary Russia, 1900 to the Present
descriptive Telephone ID #: 07537995
Social change in Russia and the USSR from the revolution of 1905 to the revolution of the 1990s.
This course will look at the revolutionary mix of social forces in the first two decades of the twentieth century, the social experiments of the 1920s, the Stalinist revolution of the 1930s and 1940s, the disintegration of the Stalinist consensus after Stalin's death in 1953 and the dissolution of the Soviet Union.
Prerequisite: HIS307Y
descriptive European Area Session: Winter Day E.W. Dowler

HISD19F The Making of Modern Society
descriptive Telephone ID #: 07534563
A seminar in the international history of "ordinary people" from the late eighteenth century to the early twentieth century.
The course discussed how political, population pressure, and industrialization shifted pre-industrial society, how high forms of social structure changed into mass organizations, how revolutionary ideas affected everyday people, and how governments and "governing classes" responded to pressure from below.
The course provides the opportunity for students to re-examine, on a comparative basis, knowledge gained in other courses. Two-three seminars.
Limited enrollment: 15.
Exclusion: HIS15B 7135
Prerequisite: HIS301Y and two other courses in post-1815 history, either European or North American.
American/European Areas Session: Winter Day W.M. Dickinson

HISD17Y European Society and Culture in the Twentieth Century
descriptive Telephone ID #: 07541763
An investigation of the impact of war, technology, economic crisis, and totalitarianism on the social condition and mind of Europe.
Two-hour seminar.
Limited enrollment: 15.
Exclusion: HIS17Y (HIS318, HIS412
Prerequisite: HIS101Y (HIS403) and one B- or C-level course in History
European Area Session: Winter Day M. Ekström

HISD98Y Social Change, Reform Movements and Politics in the Nineteenth- Century United States
descriptive Telephone ID #: 07534663
A topical examination of major social and political movements and developments in the United States during the 19th Century.
A seminar course which will consider the major political movements, laborers, forces and ideas, third party and single-issue movements, social reform, anti-slavery, race relations, women's movements, religion and cultural nationalism, immigration and hostility to immigrants.
Limited enrollment: 15.
Prerequisite: HIS303
American Area Session: Winter Day A.N. Sheps

HISD44F The Crusades II
descriptive Telephone ID #: 07534623
An intensive study of the primary sources of the First through Fourth Crusades.
A variety of primary sources from a number of points of view will be considered, including works written by Eastern and Western Christians, Arab and Jewish authors. The crusading period will be considered in its broader context of Western Christian expansion in the Middle East, Spain and Northern Europe in the 11th through 13th centuries.
Limited enrollment: 15.
Exclusion: HIS362 HIS363
Prerequisite: HIS605
0.5 Per 1815 credit
Medieval Area Session: Winter Day M. Govers

History courses in Classical Studies (see Classical Studies for full descriptions of courses offered in 1996/97), all of the following CLA history courses are Pre- 1815 credits and can be used to fulfill History Programme requirements.

CLAB9WY The Mediterranean World
J.R. Corbett

CLAB9FY Freedom in the Making of Western Culture
Prerequisite: CLA101Y or CLAB501Y or HIS101Y
J.R. Corbett

CLAB9Sbf Y Army and Empire in the Roman World
Prerequisite: (CLA101Y) or CLAB501Y or HIS101Y
J.R. Corbett

CLAB9SFY Women in the Greek and Roman World
Prerequisite: (CLA101Y) or WSTA101Y
M.E. Irwin

CLAC1FYS Slavey in the Roman Economy
Prerequisite: (CLA101Y) or HIS101Y
J.R. Corbett

Course Not Offered in 1996/97

HISB9SY History of Africa Since 1800
Exclusion: (HUMB90) 1815

HISC15FS The Sixteenth Century Religious Reformations
Exclusion: HISD97FS (HIS318, HIS317)
Prerequisite: HIS101Y
HIS303 or a B-level course in European history.

HISC16Y Modern France 1750 to the Present
Exclusion: HIS15E
Prerequisite: HIS101Y

HISC91FBS Slavery and the Americas
Prerequisite: (HIS101Y) or HIS101Y or a B-level course in European history or permission of instructor.
Exclusion: (HIS311)
Prerequisite: HIS303
As one of the College's five academic Divisions, Humanities comprises several distinct disciplines, such as Visual and Performing Arts, Classical Studies, English, History, Philosophy and Languages. Each of them offers a range of courses in its own area and its own programme(s) of study. These are listed under the pertinent headings in the Calendar.

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

COLLEGE PROGRAMME IN THE HUMANITIES

The College Programme in the Humanities has been withdrawn.

Every effort will be made to allow students who registered before September 1995 to complete it at this campus. Please consult with the Associate Chair in H523 (287-7128).

HUM312Y Prologue*

Telephone ID: 07810163

Twenty books of central importance in Western civilization.

A comprehensive examination will be given at the completion of each set of ten books. There is a one-hour period for each book. The examination will stress the student's ability to relate the books in his/her own way, rather than to remember minute aspects of plot and character. At weekly informal sessions guest lecturers will present aspects of each work through lectures or other media. Full Term: The Bible (selections); Homer, *The Odyssey*; Sophocles, *Oedipus Rex* and *Antigone*; Herodotus, *History*; Plato, *The Last Days of Socrates*; Vergil, *Aeneid*; Sappho, *Love Songs*; Dante, *Inferno*; *Boccaccio*, *Decameron*; Spring Term: Machiavelli, *The Prince*; Montaigne, Essays; *Voltaire*, *Candide*; Goethe, *Faust*; Shelley, *Frankenstein*; Darwin, *Origin of Species*; Dostoevsky, *Notes from Underground*; Nietzsche, *Thus Spoke Zarathustra*; Freud, *Interpretation of Dreams*; Woolf, *Three Guineas*.

NOTES: For information on appropriate editions of these works, see the coordinator. Titles may change if editions become unavailable.

*What's past is prologue*

Shakespeare, *The Tempest*, Act 2, Sc. i

Exclusion: *CLA100, ENGL104*

Session: Winter Day Co-ordinator: T.B.A.

Offered: 1996/97

HUMB466 Growing Up German

Telephone ID: 0752563

Main literary trends in Germany from the turn of the century to the present.

We will read shorter works by Frank Kafka, Thomas Mann, and Robert Musil. The different themes of conflict in these works will find a historical "reality test" in three novels: Erich Maria Remarque, *All Quiet on the Western Front*, Lion Fleischhauer, *The Oppermann*, and Heinrich Böll, *Buddenbrooks*. These novels deal with war, tyranny, and reconstruction as experienced in Germany between 1914 and 1940.

Exclusion: *GER466*, *GER210*

Prerequisite: *GERB10* and *GER210* for students enrolling in the original

Session: Winter Day T.B.A.

HUMB707Y Introduction to Cinema

Telephone ID: 07427063

An introduction to the vocabulary of film criticism, major aesthetic approaches, and general history (silent and sound). Students start the first week of classes.

Exclusion: *FIN112*, *NEW112*

Session: Winter Day T.B.A.

HUMC105 Humanities Seminar

Telephone ID: 07831053

A special half-course equivalent seminar course, taken normally after the completion of ten full-course equivalents. Each member of the seminar is expected to read one book and give a report on it. Topics for the seminars will be chosen in consultation with the Co-ordinator.

Exclusion: *HUMB105 (HUMB03)*

Prerequisite: *HUMA101Y* and nine other full-course equivalents.

Session: Winter Day Co-ordinator: T.B.A.
International Development Studies (B.A./B.Sc.)

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

Co-ordinator: J. Maxwell (287-7113) Supervisors of Studies: Susan Horton (287-7358) IDS Mission Statement

The Co-operative Programme in International Development Studies at University of Toronto at Scarborough is a five-year undergraduate programme which aims to provide students with a critical understanding of international development issues through exposure to a variety of academic disciplines and to another culture. The Programme combines interdisciplinary academic study in the social and environmental sciences and humanities with a practical work experience in a developing country. IDS students graduate with a B.A. or B.Sc. with a Specialist certificate in International Development Studies.

Objectives

1. To provide students with a broad understanding of different development paths, the international and domestic factors affecting their success, and the importance of sustainability.

2. To develop cross-cultural sensitivities and an awareness of the reality of developing nations - their cultures and their socio-economic and political systems, issues of poverty and social justice both national and international - which will allow them to develop the necessary skills for work in international development.

3. To provide a practical work experience in a different culture under the supervision of a Canadian or Southern Non-Governmental Organization (NGO), research institute, multilateral agency or private partner.

4. To provide opportunities for IDS students to share their experiences and insights, to enhance awareness of development issues at the university and in the broader community, and to promote work on development within Canada.

5. To develop partnerships with organizations and individuals in the Scarborough interested in international development.

Admission to the Programme

Applicants may apply to the programme directly from secondary school or may apply as transfer students from college of first-year university. The timing of work placements for students who receive transfer credit will depend upon the particular university courses completed. When applying, applicants must indicate the special code for this Scarborough campus 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. In order to qualify for an interview in early May, applicants must ensure that their Co-op application is received by the University no later than April 15th.

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

Fees

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

Work Placement

This programme requires twenty courses (four years) of study and a work term of approximately eight to twelve months duration. The work term will normally begin no sooner than the end of the third year and no later than January of the fourth year of the Programme.

Work placements are arranged by the Programme Co-ordinator in consultation with each student. Some placements are won on a competitive basis. The majority of students are employed, even on a part-time basis, with Canadian employers - Canadian development agencies, research institutes or private sector consulting firms. The location of the placements will vary according to each student's disciplinary and regional preferences and abilities, the availability of positions, and the practicability and safety of development work. Students who wish to carry out their placement in a developing country where there is no Canadian employer, may be asked to finance the living and other expenses of the placement themselves.

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

Eligibility for Work Placements

To compete for work placements, a student must:

- have completed at least fourteen and one-half full-course equivalents including at least 10 from the core programme (Section A) and advanced options (Section B), of these 10, at least 7.5 must be from the core programme (section A). These fourteen and one-half courses must also include four full courses from the regional and language options. After the work term students return to their studies and enroll in IDS 5090Y (International Development Studies: Advanced Seminar) and each other courses as are necessary to complete their degree.

- To maintain standing in the programme and to receive specialist certification upon graduation, a student must maintain a cumulative grade point average of 2.50

- receive satisfactory evaluations for work placement performance and the research paper

- become a full-time student during the full-time term

- Additional requirements:

- a common core programme (at least eight and one-half full-course equivalents) in environmental and social sciences

- an advanced option (at least three full-course equivalents) in either the environmental science or environmental streams (Section B, below)

- a work placement option (Section C, below)

- a Y, an advanced seminar related to their work placement experience

- other elective courses (Section D, below)

Notes:

1. EACH COURSE MAY BE COUNTED ONCE IN SATISFACTION OF WORK PLACEMENT AND PROGRAMME REQUIREMENTS

2. IT IS THE STUDENT'S INDIVIDUAL RESPONSIBILITY TO ENSURE
I. Required: *ANTC105S Anthropological Introduction to Development

or EES504S Life on Earth: Introductory Biology for Environmental Scientists

or BIO302Y Introductory Biology* or ECO302Y Introduction to Economics: A Mathematical Approach

or ECO504Y Introduction to Economics or EES504F Principles of Hydrology +
or *GGR200H Introduction to Hydrology or EES505F Introduction to Soil Science

or EES506S Biotechnology - Environmental Implications +
or EEC115 Tropical Soil Management and Development

or IDE501FS International Development Studies: Political Economy or IDE502S International Development Studies: Physical and Ecological Resource Management

or IDSC304S Project Management or EEC503S Remote Sensing and Geographic Information Systems

or EEC513F Environmental Impact Assessment or EEC517F Introductory Agroforestry

+ Students in the Environmental stream take one of the following courses.

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

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

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

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

I. Social Science Stream

Three full-course equivalents from

*ANTB100Y The Ecological Perspective in Anthropology

or ANT800Y Social and Cultural Anthropology

or ANTC11Y The Anthropology of Women

or ANTC195S Economic Anthropology

or ANTC308S Fieldwork in Social and Cultural Anthropology

or ANTC41F Medical Anthropology I: Illness and Healing in Cultural Perspective

or ANTC52S Medical Anthropology II: Biological and Demographic Perspectives

or ANTC53F The Anthropology of Food I: Human Needs

or ANTC64S The Anthropology of Food II: Consuming Passions

or ECO80T Economic Theory

or ECO81T Macroeconomic Theory and Policy

or *ECS820Y International Economic Institutions

or ECO507S Economic Development

or EOC507S Development Policy

or GGR504S Issues in Rural Development

or GGR505S Problems in Modern Agricultural Land Use

or IDSC508S Ethics of Development

or IDE60N Directed Readings on Canadian Institutions and International Development

or IND20Y Canadian Environmental Issues

or INM494H Polities of the Environment in the Middle East

or POL50Y Politics and Society in Latin America

or POL59Y Environment & Politics in Africa

or POL194Y Selected Topics on Developing Areas

or *POL445Y Canada and the Third World

or SOC301Y Macroeconomics Social Research

or SOC571F Social Change in the Third World

or WSTC10Y Women and Development

One half-course in Statistics

II. Environmental Stream

Three full-course equivalents from

*ANT52S Medical Anthropology II: Biological and Demographic Perspectives

or ECO505 Large Scale Biological & Ecological Change in the S.

or BGC704Y Geography of the Environment or BGC705Y Introduction to Geography

or BGC706L Introductory Biology: Environmental Science (Note: BGC706L, Introductory Biology, is a prerequisite. Students in this stream are strongly advised to take BGC706L)

or BGC705S Tropical Ecology and Evolution

or BGC705S Marine Biology

or BGC705S Limnology

or BGC705S Population Ecology

or BGC705S Conservation Ecology

or BGC705S Environmental Toxicology

or *BGC704H Applied Ecology

or EES503F Introduction to Oceanography

or EES505S Introduction to Climatology

or EES506S Field Camp I - Costa Rica Geography

or EES507S Field Camp II - Costa Rica Geomorphology

or ESC503S Environmental Implications

or ECO505S Geographic Information Systems +

or ECO505S Biogeography and Diversity

or ECO505S Environmental Impact Assessment +

or EES505S Hydrology: Physical Processes and Modelling

or EES505S Hydrology: Physical Processes and Modelling

or EES505S Climatic Change

or EES505S Cleaning up our Mess: Remediation of Terrestrial and Aquatic Environments

or AIR109H Air Pollution

or GGR200H Water Pollution

or GGR200H Water Pollution

or GGR200H Water Pollution

or GGR200H Water Pollution

or GGR200H Water Pollution

or GGR200H Water Pollution

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or GGR200H Water Pollution
### Major Programme in International Development Studies

**Supervisor:** F. Kagan

Students must complete eight full course equivalents for the Major Programme in International Development Studies. This includes all courses in Sections I and II except a single 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.

#### Section I

- **ECO50Y**: Introduction to Economics
- **IES501P**: Introduction to International Relations
- **IDS502P**: Comparative Politics
- **IDS503P**: International Development Studies: Physical and Ecological Resource
- **POL301Y**: Comparative Politics of Political Development

#### Section II

- **ECO501Y**: Introduction to Economic Development
- **POL301Y**: Comparative Politics of Development
- **SAD501Y**: Social Change in the Third World

#### I. Social/Cultural Perspectives

<table>
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<tr>
<th>Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO501Y</td>
<td>Ecological Perspective in Development</td>
</tr>
<tr>
<td>POL301Y</td>
<td>Comparative Slavery</td>
</tr>
<tr>
<td>SAD501Y</td>
<td>Social Change in the Third World</td>
</tr>
</tbody>
</table>

#### II. Environmental Perspectives

<table>
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<tr>
<th>Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>IDS502P</td>
<td>Principles of Developmental Biology</td>
</tr>
<tr>
<td>IDS503P</td>
<td>Principles of Developmental Ecology</td>
</tr>
<tr>
<td>IDS504E</td>
<td>Principles of Hydrology</td>
</tr>
<tr>
<td>IDS505P</td>
<td>Principles of Soil Science</td>
</tr>
<tr>
<td>IDS506P</td>
<td>Principles of Cultural Evolution</td>
</tr>
<tr>
<td>IDS507P</td>
<td>Principles of Evolutionary Genetics</td>
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</tbody>
</table>

#### III. Policy Issues

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<th>Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>IDS502P</td>
<td>Principles of Economic Development</td>
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<tr>
<td>IDS503P</td>
<td>Principles of Social and Cultural Development</td>
</tr>
<tr>
<td>IDS504E</td>
<td>Principles of Political Economy</td>
</tr>
<tr>
<td>IDS505P</td>
<td>Principles of Political Development</td>
</tr>
<tr>
<td>IDS506P</td>
<td>Policies and Societies I: Survey</td>
</tr>
</tbody>
</table>

### Interfaculty Speciality Programme in International Development and Environmental Studies

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

Selection: ECO200Y
Prerequisite: ECO102Y or ECO103Y or permission of instructor.
Session: Winter Day

IDS025 International Development Studies: Physical and Ecological Resource Management
Telephone ID #: 08120523
Introduces students to the physical and ecological bases of natural resource management, and their role in constraining development in less developed countries. The course includes study of basic climatic processes, climatic differentiation, the hydrologic cycle and its role in water resource management; principles of soil development and nutrient cycling; processes of plant colonization and community development. It will include case studies of natural resource management and mismanagement in developing countries. Students will be encouraged to develop specific regional interests in course tutorials.
Prerequisite: EEA01F/S
Session: Winter Day

IDS051/IDS052 International Development Studies Co-op 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 as apprentice interns with Canadian or local development agencies or universities in a developing country for a 10-12 month period. Students are required to submit progress reports every 2 months and work on a major research project based on their work placement experience. To be eligible for placement, students must have completed at least 12 full-course equivalents including 12 IDS 4800 (core plus language and regional option) credits and maintain a 3.5 GPA. The IDS work placement normally begins after the third year of study and requires a minimum of 2 years of residence in the program. Course credit of 0.5 full-course equivalent is granted for each four month work period. Work experience credits are in addition to the 20 full-course degree requirement and are graded as Credit, No Credit system.
There are no additional course fees for work terms.
IDS001Y International Development Studies: Advanced Seminar
Telephone ID #: 08140163
Normal entrance in this course will be made up of IDS students who have completed their work placement. Each student will give at least one seminar dealing with their research project andlor placement. The research paper will be the major written requirement for the course, to be submitted no later than mid-March. The course will also include seminars by practicing professionals in various development topics.
Prerequisites: IDS0101S & IDS0201S & knowledge of the world’s English languages required.
Section: Winter Day

IDS0145S and IDS0155S Directed Reading
For upper level students whose interests are not covered in one of the other courses normally offered. Courses will normally only be available to students in their final year of study at the College. Students must obtain consent from the Supervisor of Studies and supervising instructor before registering for this course.
Prerequisites: IDS0101S & IDS0102S
Session: Winter Day, Winter Evening, Summer Evening

NOTE:
The normal prerequisites in GCR B-level courses may be waived by permission of the instructor for IDS students. Students in the Environmental stream who plan to graduate with a Bachelor of Science degree should consult the Supervisor of Studies.

Italian

No Italian courses are being offered in this semester. Students interested in the language should consult the University of Toronto (St. George Campus and Scarborough College).

Language Studies
(B.A.)

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

French

Specialist Programmes in Management and French
Registration in this Programme is limited. Please refer to the Management section of the Calendar for details.
The Management and Economics and Humanities Divisions have co-operated to develop a joint programme in Management and French. The Management requirement for any of these programmes is the first five requirements for the Specialist in Management.
Language requirements consist of five full-course equivalents as follows:

A. PREA10, FREB10, one full-course equivalent from FREC01, FREC02, FREC04, FREC20
B. At least one full-course equivalent from FREB10, FREB18, FREC18
C. At least one-half course from FREB22, FREB23, FREB27, FREB28

Major Programmes

See entries under French for the Major Programme in French.

Minor Programmes

See entries under French for the Minor Programme in French.

Linguistics
(B.A.)

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

Discipline Representative: D. James (287-1170)

Linguistics is the scientific study of human language. It encompasses theories of linguistic structure in all domains: speech sounds (phonetics and phonology), words (morphology), sentences (syntax), meaning (semantics), and texts or conversations (discourse).

Subfields of linguistics include sociolinguistics (language variation according to region, gender, class, etc. as well as the social functions of language), psycholinguistics (language acquisition and processing, and their disorders), historical linguistics (how languages change across time, and why); and applied linguistics (e.g., second language learning, translation, clinical linguistics).

The Major Programme in Linguistics is designed to help students prepare for entry into professional programmes in areas with a significant language component, such as speech-language pathology, education, and language teaching. In many cases, a combined Major in Linguistics and another discipline (e.g. Psychology, Cognitive Science, Computer Science, or a language) will provide the best preparation. However, students whose interests lie in the area of theoretical linguistics who wish to complete a Specialist degree after their Scarborough Major programme (e.g. on the St. George campus), should consult with the Supervisor of Studies in order to select courses that can be applied toward a Specialist degree elsewhere.
MINOR PROGRAMME IN LINGUISTICS
Supervisor: D. James (287-7170)
The Minor Programme in Linguistics is no longer offered. Students already registered in the programme will be allowed to complete it; please contact the Supervisor of Studies to make appropriate arrangements.

MINOR PROGRAMME IN LINGUISTICS
Supervisor: D. James (287-7170)
The Minor Programme in Linguistics: Four full-course equivalents, as follows:
1. LIN401Y General Linguistics
2. LIN408Y Practical Language Analysis
or LIN409Y Practical Language Analysis: Phonology
and LIN410F Practical Language Analysis: Syntax
3. Further full-course equivalents in LIN and/or PLL, of which at least one must be at the C- or D-level.

LIN410F Practical Language Analysis: Syntax
Supervisor: D. James (287-7170) and M. R. James (287-7145)
The Minor Programme in Linguistics: Four full-course equivalents, as follows:
1. LIN401Y General Linguistics
2. LIN408Y Practical Language Analysis
or LIN409Y Practical Language Analysis: Phonology
and LIN410F Practical Language Analysis: Morphology
and LIN410F Practical Language Analysis: Syntax
3. Further full-course equivalents in LIN and/or PLL, of which at least one must be at the C- or D-level.

LIN410F Practical Language Analysis: Syntax
Supervisor: D. James (287-7170) and M. R. James (287-7145)
The Minor Programme in Linguistics: Four full-course equivalents, as follows:
1. LIN401Y General Linguistics
2. LIN408Y Practical Language Analysis
or LIN409Y Practical Language Analysis: Phonology
and LIN410F Practical Language Analysis: Morphology
and LIN410F Practical Language Analysis: Syntax
3. Further full-course equivalents in LIN and/or PLL, of which at least one must be at the C- or D-level.
LINC11Y Syntax: The Study of Sentence Structure
Telephone ID #: 20031163
The principles underlying the formation of sentences. Students will analyze linguistic data so as to determine the principles and constraints which govern sentence formation and the expression of meaning via sentence structure. Particular attention will be paid to those features of syntax which appear to be universal in languages; a focus of concern will be the ways in which these may be best accounted for in a general theory of syntax. Current theoretical approaches will be studied in detail.
Exclusion: LINC301, LIN212, LIN431
Prerequisite: LINC901
Session: Winter Day
D.M. James
Not offered 1998/99
Offered 1999/2000

LINC12Y Semantics: The Study of Meaning
Telephone ID #: 20031233
The role of meaning in the structure, function, and use of language.
Topics include lexical (word and idiom) meaning; conveyed vs. literal meaning; the role of real world knowledge and other presuppositions in understanding language; and the relationship between form and content in sentences and larger linguistic units.
Prerequisite: LINC401
Session: Winter Day
R.S. Bieszczad
Not offered 1998/99
Offered 1999/2000

PLC245 Developmental Psycholinguistics
Telephone ID #: 34832453
Descriptions of children's pronunciation, vocabulary, and grammar at various stages of learning their first language, and theories of the linguistic knowledge and cognitive processes that underlie and develop along with language learning. Exclusion: JLPS415 (LIN215, PLPB24, JLPC24)
Prerequisite: One full-course equivalent in LIN and PSYA101
Session: Winter Day
R. Smyth
Offered every year

LIN201F5 Language and Gender
Telephone ID #: 20032851
Ways in which males and females differ in the way they use language, and what languages can tell us about how males and females are viewed by their speakers. The first part of the course addresses such questions as: Who talks more? Interrupts more? Uses more forceful language and gestures? Speaks more "correctly"? Particular attention is paid to the significance of differences in the language of males and females. The second part of the course deals with such matters as expressions used to describe human beings and entities of unknown or no sex; the proposition is considered that English, and at least some other language reflect a specifically male perspective on the world.
Prerequisite: LINC401Y or WSTA40Y or permission of instructor.
D.M. James
Session: Winter Day
Offered 1997/98 and 1998/99

PLC325 Psycholinguistics
Telephone ID #: 34835533
Experimental evidence for theories of how humans produce and understand language, and of how language is represented in the mind. Topics will include the perception and comprehension 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 memory systems in language processing. Exclusion: JLPS74 (JLPS551, JLPS555)
Prerequisite: One full-course equivalent in LIN and PSYA101
Session: Winter Day
R. Smyth
Offered every year

LIN306F5 Language Change
Exclusion: JLPS005
Prerequisite: LIN401Y or permission of instructor
Session: Winter Day
R. Smyth
Offered every year

LIN307F5 Disorders of Speech and Language
Exclusion: (LIN829, JLPC55)
Prerequisite: One full-course equivalent in LIN and PSY201, and LIN401Y or PLC245 or JLPS55Y or permission of instructor
Session: Spring Day
R. Smyth
Offered every year

Course(s) Offered in 1997/98

LINB227F5 Sociolinguistics
Exclusion: JLAL254Y
Prerequisite: LINB301
Session: Winter Day
Offered 1997/98

LINB257F5 Second Language Learning
Prerequisite: One full-course equivalent in LIN or alternate prerequisites with permission of instructor
Session: Winter Day
Not offered 1998/99
Offered 1999/2000

LINB267F5 The English Language and its Peoples: Variations in Time and Place
Prerequisite: LIN307F5 Language Change
Exclusion: JLN122
Prerequisite: LINB405
LINB05 & LINB058 & LINB06 Language Change
Exclusion: LINB306
Prerequisite: LIN401Y
Session: Winter Day
R. Smyth
Offered every year

LINB268F5 Language Change
Exclusion: LINB005
Prerequisite: LIN401Y
Session: Winter Day
R. Smyth
Offered every year

LINB269F5 Disorders of Speech and Language
Exclusion: (LIN829, JLPC55)
Prerequisite: One full-course equivalent in LIN and PSY201, and LIN401Y or PLC245 or JLPS55Y or permission of instructor
Session: Spring Day
R. Smyth
Offered every year

Management 95

Management (B.Com.B.A.)

Faculty List
O. Brems, B.A., S.M. (Tel Aviv University), Ph.D. (M.I.T.) Professor
S. Bontas, H.A. (Harvard), M.P.P. (Kennedy School of Gov't.), Ph.D. (Harvard) Professor
J. Dwalewski, B.A., M.A., Ph.D. (Toronto) Professor
D.W. Lang, B.A., M.A. (Washington), Ph.D. (Toronto) Professor
A. Stark, B.A. (UBC), M.Sc. (London), M.A., Ph.D. (Harvard) Associate Professor
F. Frisch, S.B., Ph.D. (MIT) Assistant Professor
J. Samson, B.A. (California, Berkeley), M.Sc. (Victoria), B.Ed. (Toronto), M.B.A., Ph.D. (York, Canada) Assistant Professor
J.L. Xia, B.A. (People's China), M.B.A., Ph.D. (Concordia), Assistant Professor
T. Limbo, B. Comm. (Toronto), C.A., M.B.A. (York, Canada), Senior Tutor
R. Poulan, B.A., B.P.E., M.B.A., L.L.B. (Queen's), Senior Tutor
A. Stavenga, B.A. (Toronto), M.B.A. (York, Canada), C.M.A., Senior Tutor

Chair: T.B.A.

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

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

The first part of the mission statement will be achieved through the Specialist programmes in Management, which are intended to prepare students for careers in the public or private sectors or in accountancy. The second part of the mission statement will be achieved through our introduction to Management.
Management Programme

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

Admissions

Each year a total of 160 students are admitted to the Specialist Programme in addition to admissions to Co-operative studies. There are three possible ways to be admitted. The following notes apply to all of our programmes including Co-op. However, students interested in Co-op should also refer to additional application information in the following Co-op programme section.

1. Directly from Secondary School

Up to 80 students will be admitted directly from high school, on the basis of academic performance. Applicants interested in the Specialist Programme in Management must have completed OAC English I and one OAC math; applicants interested in the Specialist Programme in Management and Economics must have completed OAC English I, OAC Calculus, and OAC Algebra/Geometry or Finite Math. In the first year, they will take the courses required for the programme of their choice (see the following paragraph). In order to remain in the programme students must maintain a GPA of 2.0 or higher after having attempted at least 6 full-course equivalents. Co-op students must maintain a cumulative GPA of 2.50 throughout the programme.

2. At the End of First Year

Applicants for the Specialist Programme in Management must have completed (or be in the process of completing) MGT402, ECO403, or ECO402. Applicants for the Specialist Programme in Management and Economics must have completed (or be in the process of completing) MGT402, ECO403, and MAT2A8 or MAT2A6. Students who were unable to complete ECO403 and instead took ECON303 may be allowed to enter the programme if they have completed calculus. Students should be admitted to the programme, since the prerequisites are the same for both of these programmes. The normal course required of all students is MAT2A8 or MAT2A6. But any one of these courses may be replaced by a higher course or another program. Students who have knowledge of or are unable to fulfill the prerequisites will be allowed to enroll in courses that fulfill the prerequisites.

Students applying for admission on completion of their first year of studies will be evaluated on the basis of all their grades, including the prerequisite for admission to the Programme. In order to remain in the Programme students must have a GPA of 1.6 or higher after having attempted at least 4 full-course equivalents and a GPA of 2.0 or higher after having attempted at least 8 full-course equivalents. Co-op students must maintain a cumulative GPA of 2.50 throughout the programme.

3. Admission after First Year

Admission of students during second year (that is, until they have completed up to 10 full courses) will also be on the basis of all grades received. Students who have completed more than ten full-course equivalents will not normally be considered for admission to the Programme.

Students applying at the end of first year or during the second year will be considered for admission to a total of approximately 80 places in the three Specialist Programmes.

Subject to enrolment limits, a student admitted to any of the Programmes will have access to the full range of offerings in the discipline. Specific Programme requirements are listed below.

SPECIALIST (CO-OPEATIVE) PROGRAMME IN MANAGEMENT AND ECONOMICS

Coordinator: R. Abramson (287-7125)
Supervisor of Studies: T.J. Lively (287-7119)
E-mail: lively@macincautoronto.ca

The Management Co-operative Programmes are work-study programmes which combine academic studies with work experience in public and private enterprises. The programmes alternate study terms with work terms and typically require four years to complete. Students learn through both academic and practical experiences.

(The Administration (Co-op) Programme has been replaced in 1994-95 by Co-op versions of the Specialist Programmes in Management and Management & Economics. Students admitted to the Administration Programmes in 1994 or earlier will be allowed to complete their programmes as described below, the date of admission. Alternatively, they may wish to follow one of the programmes described below. They should consult with their supervisor about this choice.)
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 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 requirements and are granted on a credit, no credit basis. There are no additional fees for work terms.

SPECIALIST PROGRAMME IN MANAGEMENT
Supervisor: T. Livitza (287-7319) E-mail: livitza@scar.utoronto.ca
This programme is designed to give students a broad exposure to all the functional areas of management. It allows students to pursue some degree of specialization in a specific area of management, or to combine studies in management and other disciplines, such as the programmes in Management and Languages described below. Calculus is not required.

Students are encouraged to take MGTA02, EC0A09, CSCA06 and two courses offered in other divisions in the first year.

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

The programme requires the completion of the following minimum requirements:

1. MGTA02, MGTB02, MGTB01, MGTA01 (formerly EC0B10), MSTA02, MSTA03, MSTA06, MSTA07, MSTA08, MSTA10, MSTA11

2. Students who have completed MGTD27 in an earlier degree must take MGTD28 and MGTD29 (MGTD28 and MGTD29 are also required for students who have completed MGTA02, MGTD27, MGTD28 and MGTD29 as a prerequisite for MGTD28 and MGTD29 as listed above). These students however must also take 0.5 F.C.E. of courses emphasizing...
1. **MOTAO2, MOTB02, MOTB03, MOTB22 AND MOTB24 (MOTC02), MOTC04, MOTC09, MOTC14, MOTC79.**
2. Students who have completed MTSB37 in 1993-94 or before are exempt from MOTB23 and MOTB24 (MOTB28) and MOTB29 (as listed in 1. above). These students however must also take 0.5 P.C.E. of courses emphasizing management skills chosen from MOTC34, MOTC42, MOTC43, MOTC44, MOTC35, MOTC49, MOTD00.
3. at least 0.5 P.C.E. of courses emphasizing strategic management, chosen from MOTC10, MOTC11, MOTC35, MOTC38, MOTC41, MOTC42, MOTC44, MOTC45, MOTC49, MOTD00.
4. ECOA03, ECOB03, ECOB06, ECOB09, or STAR22 and STAB47 and STAD97, which require additional MAT prerequisites and 1 P.C.E. of C-level economics courses. A C-level economics course is defined as one that has a B-level prerequisite.
5. MATA26 (strongly recommended) or MATA26
6. CSCA02 (students familiar with the material in CSCA02 may substitute CSCA06)
7. Two-and-a-half additional P.C.E.'s from courses other than MGTB80, to include at least 1 P.C.E. from courses within the Division of Humanities.

**SPECIALIST PROGRAMME IN MANAGEMENT AND ECONOMIC THEORY**
Supervisor: J. Lavoie (287-7519)
E-mail: lavoie@scar.stonyroin.ca
This programme is designed to prepare students for graduate work in economics while providing a firm grounding in management theory. Required topics are treated rigorously by means of calculus. Students are encouraged to take MTA04, ECOA03, MATA28, CSCA02 and a course offered in another division in the first year.

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

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

**NOTE:** A single course may only be used to fulfill one of the following requirements:
1. **MOTAO2, MOTB02, MOTB03, MOTB22 AND MOTB24 (MOTC02), MOTC04, MOTC09, MOTC14, MOTC79.**
2. Students who have completed MTSB37 in 1993-94 or before are exempt from MOTB23 and MOTB24 (MOTB28) and MOTB29 (as listed in 1. above). These students however must also take 0.5 P.C.E. of courses emphasizing management skills chosen from MOTC34, MOTC42, MOTC43, MOTC44, MOTC45, MOTC49, MOTD00.
3. at least 0.5 P.C.E. of courses emphasizing strategic management, chosen from MOTC10, MOTC11, MOTC35, MOTC38, MOTC41, MOTC42, MOTC44, MOTC45, MOTC49, MOTD00.
4. ECOA03, ECOB03, ECOB06, ECOB09, or STAR22 and STAB47 and STAD97, which require additional MAT prerequisites, ECO050, and 2 P.C.E.'s chosen from:
   - ECO611 - ECO613 and ECO614
   - 1 P.C.E. of C-level economics courses

A C-level economics course is defined as one that has a B-level prerequisite.
5. MATA26 (strongly recommended) or MATA26
6. CSCA02 (students familiar with the material in CSCA02 may substitute CSCA06)
7. Two-and-a-half additional P.C.E.'s from courses other than MGTB80, to include at least 1 P.C.E. from courses within the Division of Humanities.

**Certificate in Business**
The Division of Management and Economics also offers a certificate programme for non-degree students. Non-degree students interested in this certificate programme should contact the Supervisor, R. Powers, (287-7251).

**Special Students in Management and Economics**
Supervisor: R. Powers (287-7251)
E-mail: powers@scar.stonyroin.ca
Special Students may be allowed to take individual courses either as credits towards professional certification (for example in accounting or human resource management) or for personal interest. Students may take courses if they have fulfilled the prerequisites or have the permission of the instructor; however, students must first consult the Supervisor about choosing their courses.

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

**MSTA02Y Introduction to Management**
Introduction to the process of management (planning, organizing, controlling, and directing), the functional components of profit and nonprofit organizations (accounting, finance, marketing, personnel, and public relations), and the organization's role within a broader context, including ethical and societal considerations. This course should be taken before any other MGT courses.

Exclusions: Any other MGT course (except IR01 for students in programmes requiring IR02 or IR03 for students in programmes admitted to the Management programme directly from high school)
Exclusions: MSTA01Y
Exclusions: None
Sessions: Winter Day, Winter Evening, Summer Evening

**MOTB01Y Financial Accounting**
Telephone ID #: 3532036
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 these techniques. Enrolment in this course is limited to students registered in programmes requiring this course.
Exclusions: MSTA01Y, MSTA01YH + MSTA01H
Prerequisites: MTA02Y
Students admitted to the Management programme directly from high school and students registered in programmes requiring this course may take MTA02Y concurrently.
Sessions: Winter Day, Summer Evening

**MGTB05F Management Accounting**
Telephone ID #: MGTB05F
Introduction to management and cost accounting with an emphasis on the use of accounting information in managerial decision-making. Topics include patterns of cost behavior, transfer pricing, budgeting and control systems. Enrolment is limited to students registered in programmes requiring this course.
Exclusions: MGB01Y, MGB02Y
Prerequisites: ECOA03Y or ECOA03T, and ECOA04T
Corequisites: For the Spring offering, MGTB05Y
Sessions: Winter Day, Winter Evening, Summer Session

**MGTB05F Quantitative Methods in Management**
Telephone ID #: MGTB05F
An introduction to statistics and regression analysis as used in economic analysis. The course will cover material similar to ECOB90 but in somewhat less depth. Topics to be covered include: summary statistics, special probability distributions (normal, binomial, t, standard normal, hypothesistesting (parametric), and simple
and multiple regression. There will be a number of computer assignments. Limited enrolment: 90 per section.
Exclusions: ANT335/6, ECOB1 (Y5), ECOB1 (Y7), ECOB05Y, EGB351L, PSTY070Y/5, SOC306Y/5, STA323/2/5
Prerequisites: CASC202 or CASC206
Corequisites: ECOA305Y or ECOA305
Session: Winter Day
T.B.A.

MGT323F Managing People in Organizations
Telephone ID #: 33522333
An introduction to micro-organizational behaviour theories from both conceptual and applied perspectives. Students will examine a variety of theories and concepts to help them develop an understandings of the behaviour of individuals and groups in all types of organizational settings. Topics covered include: individual differences, motivation and job design, work attitudes, decision making, and leadership. Enrolment is limited to students registered in programs requiring this course.
Exclusion: (MGT237Y), (MGT238Y), MGT362H
Prerequisite: MGT202Y
Session: Winter Day, Winter Evening, Summer Evenig

MGT324F Organizational Design in the Not-For-Profit Sector
Telephone ID #: 33522333
This course will explore the organizational design of not-for-profit organizations. The course will provide students with an understanding of the unique challenges and opportunities that exist in the not-for-profit sector. Students will analyze the role of leadership and management in the not-for-profit sector.
Exclusion: (MGT237Y), (MGT238Y)
Prerequisite: MGT202Y
Session: Winter Day, Winter Evening, Summer Evenig

MGT325F Managing Groups and Organizations
Telephone ID #: 33522333
An understanding of the theoretical and practical aspects of micro-organizational processes. Organizations are in part integral to our everyday lives, yet, the average person understands little about how organizations function. This course is about how organizations work, and how we can change them to make them work for us. Building on concepts and skills from MGT232 and MGT234, students will be introduced to theoretical and practical aspects of micro-organizational levels of behaviour that tackle management issues at group and organizational levels of analysis. Topics covered include: organizational design, culture, and innovation, power and politics, and group dynamics and intergroup relations. Enrolment is limited to students registered in programs requiring this course.
Exclusion: (MGT237Y)
Prerequisites: MGT232/3Y & MGT242/4YS (MGT237Y)
Session: Winter Day, Winter Evening, Summer Evenig

MGT334F Organizational Analysis
Telephone ID #: 33523033
The course will cover the analysis of the structure and performance of organizations. Students will be introduced to the concept of organizational analysis and the various techniques used to analyze organizational structures and their performance. Topics covered include: organizational theory, organizational change, and organizational performance.
Exclusion: (MGT237Y), (MGT238Y)
Prerequisite: MGT202Y
Session: Winter Day, Winter Evening, Summer Evenig

MGT335F Intermediate Financial Accounting
Telephone ID #: 33523033
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.
Exclusion: (MGT238Y) MGT222H & MGT232H
Prerequisite: MGT202Y
Session: Winter Evenig

MGT336F Principles of Finance
Telephone ID #: 33523033
The objective of this course is to provide students with the theories and skills to make optimal corporate financial decisions. It deals with general approaches for valuing cash flows. Enrolment is limited to students registered in programs requiring this course.
Exclusion: 70
Exclusions: MGT322, MGT333Y, MGT337Y
Prerequisites: MGT303FS (MGT301), ECOB05Y or ECOB05Y
Session: Winter Day, Winter Evening, Summer Evenig

MGT337F Principles of Marketing
Telephone ID #: for MGT337F: 33523033
Telephone ID #: for MGT337F: 33523033
An introduction to basic concepts and tools of marketing designed to provide students with a conceptual framework for the analysis of marketing problems. The focus is on the nature and scope of marketing in an organizational and societal setting. Students will examine the role of the marketing mix in the development of marketing strategies and the importance of customer-focused decision making.
Exclusion: (MGT237Y)
Prerequisites: MGT303FS (MGT301) & MGT242/4YS or ECOB05Y
Session: Winter Day, Winter Evening, Summer Evenig

MGT338F Management Control Systems
Telephone ID #: 33531033
This course is designed to develop a thorough understanding of planning and control systems in organizations, with a focus on behavioral implications. Case studies will be used to evaluate control structure and processes with some attention to multinational, service and non-profit organizations.
Exclusion: 60
Exclusions: MGT238H
Prerequisites: MGT303FS (MGT301) & MGT242/4YS or ECOB05Y
Session: Winter Day

MGT339F Management Information Systems
Telephone ID #: 33531033
This course is intended to help students understand the information systems that are a critical component of modern organizations. The course covers the technology, design, and application of database and information systems, with a focus on managerial judgment and decision making.
Exclusion: 60
Exclusions: MGT238Y (MGT201) & MGT242/4Y (MGT202Y)
Session: Winter Day
MGT416F Canadian Income Taxation
Telephone ID: 3353133
This is the first of two courses in Canadian income taxation. It is designed to provide the student with a 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
Exclusion: MGT315C
Prerequisites: Completion of at least ten full-course equivalents including MGT102Y (MATH101) & MGT101F
Session: Winter Day, Winter Evening, Summer Evening
MGT417S Canadian Income Taxation II
Telephone ID: 3353173
This course is designed to give the student an understanding of the more complex issues of federal income taxation, by applying current tax law to practical problems and cases. Topics include: computation of corporate taxes, corporate distributions, corporate reorganizations, partnerships, trusts, and individual and corporate tax planning. Limited enrolment: 60
Exclusion: MGT315C
Prerequisite: MGT314F/S
Session: Winter Evening
MGT422F Human Resources Management
Telephone ID: 3353223
An introduction to the basic concepts, theories and principles of personnel management. Topics include recruitment, selection, training, development, performance appraisal, compensation, benefits and sources of personnel planning. Affirmative action, discrimination and equal pay issues will be examined in relation to human rights legislation. Limited enrolment: 60
Prerequisites: MGT212F/S & MGT242F/S (MGT321Y) & MGT320Y/Cooperative: MGT102F/S
Session: Winter Day
MGT425F Organizational Design
Telephone ID: 3353253
This course considers theoretical and design aspects of modern organization. Various theoretical perspectives will be explored that are used to explain the formal and informal structure of organizations. The course will consider public and private sector organizations and make extensive use of case study material. Limited enrolment: 60
Exclusion: MGT363F
Prerequisites: MGMT212F/S & MGMT242F/S (MGT212Y) (MGT321Y) & MGT320Y
Session: Winter Day
MGT429S Comparative Organizational Behaviour
Telephone ID: 3353295
This course studies the impact on organizational strategies of different environments, discussing, among other questions, differences between nations. The course may also deal with societal attitudes in reference to quality of work life. Limited enrolment: 60
Prerequisites: MGT212F/S & MGT242F/S (MGT212Y) & MGT320Y/Cooperative: MGT102F/S
Session: Winter Day
MGT419F The Legal Environment of Business I
Telephone ID: 335319F for MGT319F: 3353139
Telephone ID for MGT319S: 3353153
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: MGT102Y (MGT302H I and II)
Prerequisites: Completion of at least ten full-course equivalents including MGMT101 (MATH101) & MGT102F/S
Session: Winter Day (F), Summer Evening (S)
MGT420F The Legal Environment of Business II
Telephone ID: 3353203
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 contracts, commercial law, taxation, agency and employment law, and it includes a discussion of laws affecting secured transactions and commercial transactions. Limited enrolment: 60
Exclusion: MGT102Y (MGT304H)
Prerequisite: MGT110Y/Session: Winter Day
MGT428S Management and Organization in Fiction
Telephone ID: 3353285
Through the analysis of works of fiction dealing with managers in both private and public sector organizations, the course explores the ethical dilemmas, organizational politics and career choices that managers can expect to face. Limited enrolment: 60
Prerequisites: MGMT212F/S & MGMT242F/S (MGT212Y) & MGT320Y
Session: Winter Day
MGT436F Management Communications
Telephone ID: 3353363
This course examines the role of management communications skills in the business world. Topics such as creating and delivering dynamic presentations, winning negotiation strategies, coping with difficult interpersonal situations and other essential executive skills are discussed. Written, verbal, and non-verbal communication is emphasized by the extensive use of classroom demonstrations, case studies, student presentations, and role playing. Limited enrolment: 40
Prerequisites: MGT212F/S & MGT242F/S (MGT212Y) & MGT320Y/Cooperative: MGT102F/S
Session: Winter Day
MGT429S Entrepreneurship
Telephone ID: 3353293
This course focuses on practical ventures, using case methods, on the skills required and issues - personal, financial, sales, operations - and on the problems entrepreneurs face as their smaller businesses grow from start-up to maturity. The course should interest those who wish to own and run their own successful businesses. Limited enrolment: 60
Exclusion: MGT102Y (MGT302H I and II)
Prerequisites: MGMT212F/S & MGMT242F/S (MGT212Y) & MGT320Y/Session: Winter Day
MGT429F Business Negotiation
Telephone ID: 3353293
An introduction to the theory and practice of negotiation in business. Almost all business relationships (for example, relationships among managers and relationships with suppliers and customers) require negotiations. This course provides the student with a set of approaches to use in different forms of negotiation, and an introduction to the development and carrying procedures for resolving disputes if negotiations break down. To gain practical experience, students will participate in exercises which simulate negotiations. Limited enrolment: 60
Exclusion: MGT102Y (MGT302H I and II)
Prerequisites: MGMT102Y & MGMT212F/S & MGMT242F/S (MGT212Y) & MGT320Y/Session: Winter Day
MGT429F Management Policy and Strategy
Telephone ID: 3353293
An introduction to the art and science of general management of a business organization. This course explores modern concepts in the general management of business, such as understanding and evaluating the competitive environment, designing a strategy that will enable an organization to succeed in its environment, and the management of conglomerate organizations. The course will use the case method extensively. Limited enrolment: 60
Exclusion: MGT102Y (MGT302H I and II)
Prerequisites: MGMT212F/S & MGMT242F/S (MGT212Y) & MGT320Y/Session: Winter Day, Summer Evening
MGT 305S Introduction to Industrial Relations
Telephone ID #: 3353555
An overview of the industrial system and process in Canada. The course will introduce students to: industrial relations theory, the roles of unions and management, employment law, labour law, the impacts of collective bargaining on the economy and the firm, strikes and lockouts, grievance arbitration, collective bargaining in the public sector, occupational health and safety, and worker compensation, and the history of the Canadian industrial relations system. Students will participate in collective bargaining simulations.
Limited enrolment: 60
Exclusion: MGT 305S
Prerequisite: Completion of at least ten full-course equivalents including ECON 202Y and MGT 305S
Session: Winter Evening

MGT 306F/307F Planning and Budgeting for Public Institutions
Telephone ID #: 3353553
Telephone ID #: 3353553
The theory and practice of planning and allocating resources in large public institutions. After presenting theoretical and planning resources allocation in large public institutions, the course will illustrate them by means of extensive case studies of the challenges currently faced by universities and colleges. Instructors will be a combination of lecture, discussion, and case studies.
Limited enrolment: 60
Exclusion: MGT 306F/307F
Prerequisite: MGT 306F/307F
Session: Winter Evening

MGT 308F Management Ethics
Telephone ID #: 3353553
This course provides students with a set of skills necessary to deal with the ethical problems contemporary managers face. Increasingly, the marketplace has come to reward -- and government regulations have come to demand -- a sophisticated management approach to the ethical problems that arise in all areas of business practice. Topics will include ethical issues in international business, finance and banking, accounting, advertising, intellectual property rights, environmental policy issues, and worker safety, new technologies, pay equity and affirmative action, whistle-blowing, and drug testing for employees.
Limited enrolment: 60
Exclusion: MGT 308F
Prerequisite: MGT 308F
Session: Winter Day

MGT 309F/310F Introduction to Operations Management
Telephone ID #: 3353605
Introduces the student to the design and control problems of systems that transform inputs into output, with emphasis on making major strategic, tactical, and operational decisions in the operations function. The course also covers several management science approaches used to solve the associated problems.
Limited enrolment: 60
Exclusion: MGT 309F
Prerequisite: ECO 202Y or MGT 310F
Session: Winter Evening

MGT 310F/311F Analysis for Decision-Making
Telephone ID #: 3353745
Introduction to Management Science approaches to dealing with decision-making situations, including discussions of problem definitions, objectives, constraints, model construction and verification, development of solutions, sensitivity analysis and interpretation. Topics include: decision analysis, mathematical programming, network methods, dynamic programming and waiting line models.
Limited enrolment: 60
Exclusion: MGT 310F/311F
Prerequisites: MATH 205Y or ECON 205Y
Session: Winter Day

MGT 312F/313F Operations Management: A Mathematical Approach
Telephone ID #: 3353755
Introduction to the broad scope and major strategic, tactical, and operational decisions in Operations Management.
Topics include: forecasting, long-range capacity planning, location and layout of facilties, operations budgeting, project management, inventory control, and production scheduling.
Limited enrolment: 60
Exclusion: MGT 312F, MGT 314F
Prerequisites: MGT 312F, MGT 314F
Session: Winter Day

MGT 314F/315F Marketing in the Information Age
Telephone ID #: 3354065
Information Age Marketing.
With the advent of information technology, marketing of even common consumer goods has changed radically in the last decade. This course will centre around the techniques used by managers to target and reach the proper segment, gather timely marketing research, analyze it electronically and monitor the marketing process throughout. Course participants will engage in the creation of a product or service, and its associated marketing plan, through an integrated World Wide Web site accessible to the Scarthorough community.
Limited enrolment: 60
Prerequisites: CISC 302Y or MGT 314F
Session: Winter Day

MGT 315F/316F Market Research
Telephone ID #: 3354075
A decision oriented course, designed to introduce students to the market research process. Alternative data collection, sampling, analysis, and evaluation procedures are discussed. Exploratory, descriptive and causal research approaches are reviewed. Both theoretical and technical considerations in design and execution of market research are stressed. Instructors involve lectures and case projects including computer analysis.
Limited enrolment: 60
Exclusion: MGT 315F
Prerequisites: MGT 316F
Session: Winter Day

MGT 316F/317F Computer Systems in Industry
Telephone ID #: 3354085
Computers background recommended.
Session: Winter Day

MGT 317F/318F Risk Management
Telephone ID #: 3354115
This course analyzes the use of financial instruments such as futures and options in the management of corporate risk. Although non-financial issues are an important part of the course, students who take it should have a strong quantitative background.
Limited enrolment: 60
Exclusion: MGT 317F
Prerequisites: MGT 318F
Session: Winter Day

MGT 318F Auditing
Telephone ID #: 3354065
An introduction to the principles and practice of auditing. The course is designed to provide students with a foundation in the theoretical and practical approaches to auditing by emphasizing auditing theory and concepts, with some discussion of audit procedures and the legal and professional responsibilities of the auditor. Limited enrolment: 60
Prerequisites: MGT 318F
Session: Winter Day

MGT 319F/320F Advanced Financial Accounting
Telephone ID #: 3354050
Consideration of accounting practice in the context of accounting theory and concepts for a number of selected cross-disciplinary areas, and foreign currency transactions.
Limited enrolment: 60
Prerequisite: MGT 319F
Session: Winter Evening

MGT 320F Current Issues in Financial Accounting
Telephone ID #: 3354050
This course will deal with a number of topics in current accounting literature, with particular reference to the standard-setting process and the problem of the development of theories of, and, for, accounting. Topics may also include: not-for-profit and government accounting, deferred taxes and pensions, and international harmonization issues.
Limited enrolment: 60
Prerequisite: MGT 320F
Session: Winter Day

MGT 321F Current Issues in Management Accounting
Telephone ID #: 3354065
Through a review of current literature and computer simulations, this semester considers managerial decision-making research and new complex cost system design approaches. Other topics may include: service sector practices, distribution costing, quality measurement, international developments, and ethical questions.
Limited enrolment: 60
Prerequisite: MGT 321F
Session: Winter Day

MGT 322S Introduction to Auditing
Telephone ID #: 3354065
An introduction to the principles and practice of auditing. The course is designed to provide students with a foundation in the theoretical and practical approaches to auditing by emphasizing auditing theory and concepts, with some discussion of audit procedures and the legal and professional responsibilities of the auditor. Limited enrolment: 60
Prerequisites: MGT 322S
Session: Winter Evening
The Programme requires completion of 13 full-course equivalents. Relevant Neuroscience courses from the St. George or E dimsdale campuses may only be used to satisfy a requirement with the permission of the Supervisor of Studies.

1 A-level courses (3 F.C.E.'s) -
BGYA01Y Introductory Biology
CHMA02Y Introductory Chemistry
PSYA03Y Introductory Psychology

2 B-level courses (4.5 F.C.E.'s) -
BGYB02Y Cell & Molecular Biology
BGBR02Y Animal Physiology
CBMB04Y Organic Chemistry
NRCB030Y Animal Physiology
NRCB060Y Neuroscience I: Cell Anatomy and Physiology
PSYB07FY Data Analysis in Psychology (STAB 22 may not be used to fulfil this requirement)
PSYB65FY Human Brain & Behavior

3 C-level courses (3 F.C.E.'s)
BOYC14FY Biochemistry I: Proteins & Enzymes
BOYC19FY Biochemistry II: Bioenergetics & Metabolism
NRCB030Y Students in the Major: History, Learning, Motivation
NRCB04FY Neuroscience III: Sensory & Motor Systems
PSYC08F Scientific Experimental Design in Psychology

4 F.C.E. from the following Laboratory courses:
NRCB06FY Neuroscience Laboratory
NRCB080FY Supervised Study in Neuroscience
NRCB090FY Supervised Study in Neuroscience
NRCB09FY Advanced Neuroscience Laboratory
NRCB09FY Thesis in Neuroscience
MAJOR PROGRAMME IN NEUROSCIENCE

Supervisor: [Office S569]

The programme requires seven full-course equivalents. Students who might consider completing a four-year degree are encouraged to include in the electives below the following courses: CMB445Y, BOYG312 and BOYG313 so that they would be eligible for the Specialist Programmes.

The following outline indicates the required courses and their most advantageous sequencing for the Major Programme in Neuroscience. The Major Programme in Neuroscience is preferred by students who are interested in a major in biology, psychology, or computer science.

1. A-level courses (3 F.C.E.):
   - BOY40Y: Introductory Biology
   - CMB42Y: Introductory Chemistry
   - PSTA40Y: Psychology

2. 2.5 F.C.E. courses from the following B-level courses:
   - BOYTB30Y: Cell & Molecular Biology
   - BOYTB330Y: Animal Physiology
   - NROB090Y: Neurophysiology
   - NROB080Y: Neuroscience 1: Cell
   - NROB070Y: Human Brain & Behaviour
   - PSTB070Y: Data Analysis in Psychology (STAB22 may not be used to fulfill this requirement)

3. 5 F.C.E. courses from the following C-level courses:
   - NROC310Y: Neuroscience II: Learning & Motivation
   - NROC40Y: Neuroeconomics
   - NROC470Y: Sensory & Motor Systems
   - NROC530Y: Intellectual Development
   - PST070Y: Psychology of Aging

4. 1 F.C.E. course from the following C and D-level courses (maximum of 5 F.C.E. for Supervised Study or Thesis courses):
   - NROC340Y: Forensic Psychology
   - NROC350Y: Developmental Neurobiology
   - NROC460Y: Psychobiology of Aging
   - NROC590Y: Supervised Study in Neuroscience
   - PST070Y: Psychology of Aging

NROCSF Neurosciences Laboratory
Telephone ID #: 23036533
Instruction in variety of techniques used in investigations of nervous system function.

The course is mainly intended for students who are pursuing a Specialist Programme in Neuroscience. The procedures covered include: behavioral techniques, surgery, brain lesioning, perfusion, and histology (preparing, sectioning, and staining neural tissue). In addition, animal ethics and preparation of scientific papers will be covered. Two hours of lecture and three hours of scheduled laboratory work per week. Students will also be required to spend additional hours working in the student laboratory.

Exclusions: PSTA40Y and NROB080Y (PST070Y). Conquisite: NROCS61 (PSYC61), PSTA40Y and PST070Y. Session: Winter Day

NROCSF Developmental Neurobiology
Telephone ID #: 23036533
An examination of some aspects of the development of the vertebrate nervous system and mechanisms which guide this development.

Beginning with the embryonic development of the nervous system, this course will address how neurons acquire and maintain their characteristic properties and how the nervous system establishes connections. Topics will include the development of the nervous system, including the formation of synapses, axons, dendrites, and glial cells. The course will also cover the development of the peripheral nervous system, including the formation of the spinal cord, the development of the peripheral nervous system, and the development of the brain. The course will also cover the development of the brain and the development of the spinal cord.

Exclusions: PSTA40Y and NROB080Y (PST070Y). Conquisite: NROCS61 (PSYC61), PSTA40Y and PST070Y. Session: Winter Day

NROCS61 Neurosciences II: Sensory and Motor Systems
Telephone ID #: 23036533
A focus on the mechanisms by which the nervous system processes sensory information and controls motor output.

The topics include sensory transduction and the sensory physiology of each of the sensory systems (olfactory, visual, somatosensory, auditory, vestibular, gustatory) and models of sensory processing. The pyramidal and extrapyramidal motor systems, as well as the neural mechanisms of motor control, are covered.

These hours of lecture per week: Exclusion: PSTA40Y. Conquisite: NROB080Y (PST070Y). Session: Winter Day

N. W. Milgram
NRCOSF: Synaptic Organization of the Brain
Telephone ID #: 23046593
A detailed study of the synaptic organization of the brain, focusing on the major structures of the central nervous system. Neuronal morphology, connectivity, inhibition and excitation, convergence and divergence, neurotransmitter systems and cellular and molecular mechanisms of information processing will be covered in detail. Similarities in circuitry between these seemingly diverse structures as the olfactory bulb and cerebellum will be examined.
One two-hour lecture per week.
Exclusion: PSTYD98
Prerequisite: NROCG6F (PSTYB60F)
Session: Winter Day
G. Ivy
NROCOSF
NROCOSF Supervised Study in Neurosciences
A reading or research project. These courses provide an opportunity to investigate an area in greater depth after completing basic coverage in regularly scheduled courses. They are not intended as substitutes for advanced courses in fields where these are available. The student must demonstrate that his or her background is adequate for the project proposed and should present a clear rationale to prospective supervisors. Precourse consultation with the supervisor is necessary and extensive library research and data collection will be required. Such a project can culminate in a written submission. These courses cannot be repeated for credit.
Students are advised that they must obtain consent from the supervising instructor before registering for these courses.
Students seeking supervision off campus are further advised to verify first with the Supervisor of Studies that the prospective project supervisor currently holds a cross-appointment at the University of Toronto and that the project is acceptable.
Prerequisite: Three full-course equivalents in Psychology, Biology or Neuroscience & permission of instructor.
Exclusions for NROCG6: PSTYC30, BGYD01 (BROD0)
Exclusions for NROCOSF: PSTYC33, BGYD01 (BROD0)
Session: Winter Day
NROCG6F Current Topics in Neuroscience
Telephone ID #: 23046033
An intensive examination of selected issues and research problems in comparative and physiological psychology.
Limited enrolment: 20
Exclusion: PSTYD91
Prerequisite: NROCOSF (PSTYC61)
Session: Winter Day
N.W. Milmam
NROCOSF Advanced Neuroscience Laboratory
Telephone ID #: 23046553
Instruction in a variety of advanced techniques used in investigations of nervous system function. Students may select topics for their laboratory projects from areas of particular interest to the laboratory. The course will focus on laboratory research projects covering topics such as neural development, neural plasticity, and hippocampal function. Students will also be required to spend additional hours working in the student laboratory.
Exclusion: PSTY999
Prerequisite: NROCOSF
Corequisite: NROCOSF (PSTYC61) and PSTYC68
Session: Winter Day
T. L.
NROCOSF Thesis in Neuroscience
This course offers qualified students the opportunity to engage in a year-long research project under the supervision of a faculty member in the Neuroscience area (Psychology or Biology). During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposal of others and to discuss the results of their investigation. The individual research project will culminate in a written report in the form of a thesis and a defense is held shortly at the end of the spring.
Before enrolling, students must obtain the signature of their intended supervisor. Students seeking supervision off campus are further advised to verify first with the Supervisor of Studies that the prospective project supervisor currently holds a cross-appointment at the University of Toronto.
Discipline Representative: G.P. Nagel (287-7155)
Philosophy is the study of the ideas that shape our thought and activity. While we do discuss controversial issues in politics, morality, science, religion, art, etc., philosophy is more concerned with the ideas that underlie all such debates. We consider what the role of government should be, what reasons there could be to describe anything as good or bad, what proves that something is true, whether there could be a reality beyond the physical world, and whether the only value of art is the pleasure it gives. Such questions have been answered in a variety of theories, and any study in philosophy begins with learning what others have thought; but our purpose is not primarily to be historians of ideas, and assignments focus on developing the intellectual abilities and techniques required to think effectively for ourselves at this deeper level. So philosophy emphasizes interpretation and original thought, reasoning, discussion and assessment.
PHIL101 is a survey of the main topic-areas of philosophy. It is recommended both as a course of general interest and as an introduction to the Major Programme. B-level courses address specific topics such as art, feminism, politics, techniques of argument, and theories of mind. Since they have no prerequisites they also serve as entry-points to philosophy.
Seminars in Philosophy are advanced courses for students with at least full-course equivalents in Philosophy. (Instructors will admit students whose courses in other disciplines have adequately prepared them.) Students wishing to provide transcripts when requesting special permission to attend in a seminar).
Supervised research courses are direct continuations of the topic-matters of the seminars with which they are paired. Students must have been taken within the preceding four academic terms, including summer sessions.
MAJOR PROGRAMME IN
PHILOSOPHY
Superintendent: G.P. Nagel (287-7155)
Students must complete at least one full-course equivalent in Philosophy, at least one of which must be at the D-level.
Physical Sciences Scarborouh
(B.Sc.)

Physical Science Scarborouh is a closely integrated group of specialist programmes emphasizing close coordination among traditional subject areas to educate students with an integrated view of science. Admission to the Physical Sciences Scarborouh programme takes place in first year.

The following Specialist programmes are offered by the Physical Sciences Scarborouh group:

Biology

Chemistry

Environmental Chemistry

Computer Science

Computer Science and Information Systems

Computer Science and Mathematics

Computer Science and Physical Science

(E-Op & Non-Co-op)

Computer Science and Statistics

Environmental Science (Co-op & Non-Co-op)

Mathematics

Mathematics and Statistics

Physical and Mathematical Sciences

Stream A: Mathematics

Stream B: Physical Science

Most programmes cover at least two cognate disciplines, and as a result 14 to 17 full course equivalents (F.C.E.'s) must be specified in a 20 course programme. Introductory courses in Physics and Calculus form a basis for all programmes, and it is intended that all programmes students take these courses. The choice of other introductory courses open to the individual programmes, ranging from the mathematically oriented programmes to those in environmental science. A special first year programme committee will have overall responsibility for the introductory courses, including coordination and work-load balancing so that students are not overwhelmed by the transition to university. The progress of students across their Physical Sciences courses will be monitored throughout the year, and counselling will be provided as appropriate.

Students from the various programmes in higher years will take some common courses with students in the same year, so that the cohort will retain a common identification. This will provide significant benefits for the students, particularly through encouraging communication across the disciplines involved. Common courses in the final year will serve to integrate the knowledge gained.

Students should be aware that some courses are offered in alternate years. These courses may be taken in the year in which they are offered provided prerequisites have been satisfied.

EARLY TEACHER PROJECT

The Early Teacher Project is designed to produce future high school teachers of Science and Mathematics. It has been developed in cooperation with the Faculty of Education, University of Toronto. The Physical Sciences Scarborouh programmes are designed to lead to Honours Specialist Ontario Teacher Certification in one or more subjects. To participate students must continue to be registered in a Physical Sciences Scarborouh Programme and participate in an orientation 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 work-study component organized jointly by University of Toronto at Scarborouh and the Faculty of Education.

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 Scarborouh Specialist Programme with a 2.5 GPA standing in the best fifteen F.C.E.'s will guarantee admission to the Faculty of Education for at least some of the second year.

Completion of the Early Teacher Project requires the completion of PSYC101 and one of PSOC205 or PSOC206, irrespective of the particular programme requirements of Physical Sciences Scarborouh Specialist Programmes. This may require choosing one of PSOC205 or PSOC206 as an elective in some programmes.

Astronomy

(B.Sc.)

Faculty List

C. Dyre, B.Sc., M.Sc., Ph.D.(Toronto) Professor

P.F. Kronberg, B.Sc., M.Sc., (Queens), Ph.D. (Manchester), D.Sc. (Manchester) Professor

Discipline Representative: C.C. Dyre

Astronomy is at the same time one of the oldest and one of the most dynamic areas of science. It is the basic attempt to understand the environment in which humanity developed, from the solar system in which we find our direct and recent origins, to the largest distance scales implied by quasars and the big bang, in which we must search for the very origins of structure ranging from the solar system to the largest structures, such as large clusters of galaxies and cosmic voids. The past quarter century has seen startling discoveries, such as the cosmic microwave background radiation, that have given us a more understanding of the universe and made us more aware of the problems still facing us in attaining a further understanding. In addition there has recently been a significant trend towards the integration of many of the ideas of modern high energy physics into astronomy, with particularly interesting developments concurring ideas about the very early seconds in the evolution of our universe. The full range of modern astronomical topics is covered in the introductory course ASTR101. For students wishing to further their study in astronomy, there are a number (BSC level) courses, which are integral components of a number of the Physical Sciences Specialist Programmes. In addition, the course ASTR303 is intended for students who have taken no previous astronomy, and covers the history of modern astronomy. It is
ASTR505 Introduction to Astronomy
Telephone ID #: 01152053
A description of the solar system, stars, galaxies and other phenomena of the Cosmos in which we live.

This course, the mechanics which make our sun and other stars shine are explained, and the nature and evolution of our solar system, star systems, galaxies and the Universe as a whole are discussed in a manner suitable for both the science and non-science student. Methods and techniques for exploring the Universe are described, including the recent use of radio telescopes and telecommunication spacecraft. Two lectures and one tutorial per week. This is supplemented by a planetarium demonstration and a class trip to the David Dunlap Observatory. Using the College's 12 inchQuestar telescope, students also have an opportunity to observe and photograph heavenly bodies if they wish.
Exclusion: ASTR100, 120, 200 Session: Winter Day

ASTR506 Great Moments in Astronomy
Telephone ID #: 01202053
An examination of the people, the backgrounds and the events associated with some major advances in astronomy.

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

The course is intended primarily for students not in Physical Science who, in their second or higher years, wish to acquire an understanding of the origins and significance of our present world view. A term paper dealing in detail with an aspect of one of the topics is required.
Exclusion: ASTR100
Pre-requisite: Four full-course equivalents Session: Winter Evening

ASTR509 Celestial and Classical Mechanics
Telephone ID #: 01252053
A consideration of celestial mechanics with particular emphasis on its origins and applications in celestial mechanics. In particular, this course will examine the study of the motions of bodies in planetary systems. Topics will include central force laws, Kepler's Laws, conservation laws, Lagrange's equations, and an introduction to Hamiltonian mechanics.

Pre-requisite: ASTR505 & MAT101Y & PHY101Y & 2215 or (PHY100Y & PHY110Y & PHY101Y)
Corequisite: MATH114F & MATH225 & PHY2205

ASTROW10 Research Topics in Astronomy
Telephone ID #: 01020222
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 ("masterwork") on this 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 basic methods of research. The topic will be selected by one or more instructors in consultation with the student. Formal lectures are replaced by regular consultation between the student and instructor. It is expected that at least 40 hours of work will be done during the year, following which the mini-dissertation will be submitted to the instructor. For more detailed information see Professor Dyer or Kraberg. The bibliography is dependent upon the topic selected.

Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusion: ASTR505
Pre-requisite: ASTR505 or ASTR52J & PHYS215 & permission of instructor Session: Winter Day

ASTRO15 Stellar Systems, Galaxies, and Cosmology
Telephone ID #: 01520153
This course will consider the structure and evolution of collections of astrophysical bodies.

Notably, the course will start with an investigation of the scale of stars. Topics will include the star clusters found in various regions of our own galaxy and their implications for both the evolution of the stars and for the evolution of the galaxies of which they are a part. The study of galaxies will extend to their morphology, evolution, and place in the evolution of larger systems, such as clusters of galaxies, superclusters, and eventually the universe. The large scale structure of the universe, cosmology, will be considered in the Newtonian gravity approximation, leading to the simple Friedman models of the universe. Observational approaches to determining limits on the large scale structure of the universe will be considered.

Pre-requisite: ASTR505 & ASTR509 Corequisite: MATH114F & MATH225 & PHY2205

NOTE: ASTRO15 and ASTRO25 will be offered in alternate years. The order that these courses are taken as part of a program is determined solely by their alternating years of offering.

Courses Not Offered 1997/98

ASTRO20 Structure and Evolution of Astrophysical Objects
Pre-requisite: ASTR505 & MAT101Y Corequisite: MATH114F & MATH225 & PHY2205
Students who wish to enroll in St. George 400-series courses should note that completion of the following groups of courses, together with their prerequisite and prerequisites, will ensure admission to the St. George courses indicated, provided that standing or permission of the instructor is obtained.

To Enter Complete
St. George Series Scarborough Courses
420 CHMA0Y; CHM02Y; CHM03F; CHM04C; CHM06Y; CHM08F; CHM09S; CHM10S; CHM11S; CHM13S; CHM14S; CHM15S; CHM16S
440 (except 447) CHM02T; CHM03T; CHM04Y
NOTE: TIMETABLE CONSTRAINTS USUALLY PRECLUDE SCARBOROUGH C4ALEVEL AND ST. GEORGE 400-LEVEL COURSES BEING TAKEN IN THE SAME YEAR.

While courses in Physics do not appear among the prerequisites or co-requisites of most courses in Chemistry, students are urged to take PHY1A0F & PHY121S (PHYAVG) early in their programs. Thus, the suggested first-year program in Chemistry includes CHMA0Y, MATA0Y and (PHY1A0F & PHY121S (PHYAVG)). Completion of one of the Specialist or Major Programmes listed below can lead to a number of career opportunities in industry, research, teaching, and government. Students who are interested in these Programmes are urged to consult with the supervisors early in their academic careers.

Please refer to the Physical Sciences Scarborough prospectus on page 110 for a list of the Programmes offered. Descriptions of these Programmes will be found on subsequent pages of this section.

SPECIALIST PROGRAMME IN BIOLOGICAL CHEMISTRY
Supervisor: K.A. Henderson (287-7215)
First Year:
BOY01Y Introductory Biology
CHMA0Y General Chemistry
MAT01Y Calculus

SPECIALIST PROGRAMME IN CHEMISTRY
Supervisor: A. Walker (287-7225)
The Specialist Programme in Chemistry has been withdrawn. Students currently registered in it will be allowed to complete it. Please consult with the Supervisor of Studies.

SPECIALIST PROGRAMME IN ENVIRONMENTAL CHEMISTRY
Supervisor: K.A. Henderson (287-7215)
First Year:
CHMA0Y General Chemistry
CSCA0Y1 Introduction to Scientific Computing
EES301F Introduction to Planetary Earth
MATA0Y Calculus
PHYA0F Principles of Classical Physics
PHYA0S Principles of Modern Physics

Second Year:
MATB11F Techniques of Calculus of Several Variables I
CHMB11Y Introduction to Inorganic Chemistry
CHMB12Y Introduction to Organic Chemistry

Fourth Year:
PSCD10F Current Issues in Environmental Science

At least 0.5 F.C.E. from the following:
BOY01Y Introductory Research Project
CHMB11Y Introduction to Research
CHMB12Y Library Thesis
CHMB13Y Library Thesis
CHMB11S Physical Sciences Project

0.5 F.C.E. from any EES B-level course for which EESA0F is a prerequisite.

Third Year:
CHMC11F Principles of Analytical Instrumentation
CHMC11S Physical Inorganic Chemistry

Fourth Year:
CHMC41F Introduction to Biophysical Chemistry

CHMC42SS Physical Environmental Chemistry
CHMC51S Atmospheric Chemistry

0.5 F.C.E. from any EES C- or D-level course.

Fourth Year:
PSCD10F Special Topics in Physical Sciences
PSCD10S Scientific Research Project

At least 0.5 F.C.E. from the following (research) courses:
CHMD08Y Introduction to Research
CHMD09Y Library Thesis
CHMD10Y Library Thesis
EBS010Y Research Project in Environmental Science
EBS010Y Research Project in Physical Sciences

0.5 F.C.E. from any EES Physical Sciences Project

Second Year:
CHM03F Techniques of Analytical Chemistry

CHM011F Introduction to Inorganic Chemistry

CHM04Y Introduction to Organic Chemistry

CHM05S Environmental Chemistry

Second Year:
MATB11F Techniques of Calculus of Several Variables I

0.5 F.C.E. from any EES B-level course for which EESA0F is a prerequisite.

Third Year:
CHMC11F Principles of Analytical Instrumentation

CHMC41F Introduction to Biophysical Chemistry

CHMC42SS Physical Environmental Chemistry
CHMC51S Atmospheric Chemistry

0.5 F.C.E. from any EES C- or D-level course.

Fourth Year:
PSCD10F Special Topics in Environmental Chemistry
PSCD10S Scientific Research Project

At least 0.5 F.C.E. from the following (research) courses:
CHMD08Y Introduction to Research
CHMD09Y Library Thesis
CHMD10Y Library Thesis
EBS010Y Research Project in Environmental Science
EBS010Y Research Project in Environmental Science

0.5 F.C.E. from any EES Physical Sciences Project

Second Year:
CHM03F Techniques of Analytical Chemistry

CHM011F Introduction to Inorganic Chemistry

CHM04Y Introduction to Organic Chemistry

CHM05S Environmental Chemistry

Second Year:
MATB11F Techniques of Calculus of Several Variables I

0.5 F.C.E. from any EES B-level course for which EESA0F is a prerequisite.

Third Year:
CHMC11F Principles of Analytical Instrumentation

CHMC41F Introduction to Biophysical Chemistry

CHMC42SS Physical Environmental Chemistry
CHMC51S Atmospheric Chemistry

0.5 F.C.E. from any EES C- or D-level course.

Fourth Year:
PSCD10F Special Topics in Environmental Chemistry
PSCD10S Scientific Research Project

At least 0.5 F.C.E. from the following (research) courses:
CHMD08Y Introduction to Research
CHMD09Y Library Thesis
CHMD10Y Library Thesis
EBS010Y Research Project in Environmental Science
EBS010Y Research Project in Environmental Science

0.5 F.C.E. from any EES Physical Sciences Project

MAJOR PROGRAMME IN CHEMISTRY
Supervisor: A. Vanier (287-7224)
It offers the possibility of obtaining an introduction to all the subdisciplines of Chemistry. Students should complete the following 7.5 courses:
Second and Later Years: 4.5 F.C.E. Chemistry courses, including at least one "C" level half-course with a laboratory.**

* PHY110 is not an acceptable substitute.

** Students should note that if they are going to select CHMB42Y, then MATA40Y & PHYTA40Y or PHYTA40F & PHYTA40S are prerequisites; if CHMC41F is chosen, CHMB42Y and MATB41F are prerequisites.

MAJOR PROGRAMME IN BIOCHEMISTRY

Supervisor: J. Petrie (287-7222)

This Programme places a greater emphasis on the biological aspect of chemistry than does the general Chemistry Major Programme. It is offered for students who are primarily interested in chemistry but also want to study the chemical aspects of living systems. Students should complete the following eight F.C.E.'s.

First Year:

BOYA51 Introduction to Biology
CHMA40T General Chemistry

Second and Later Years:

BOYB123 Cell & Molecular Biology Lab
BOYB35 Practical Approaches to Biochemistry
CHMB16F Techniques in Analytical Chemistry
CHMB473 Bio-O rganic Chemistry

CHMA40T General Chemistry

And 1.0 F.C.E. from the following:

CHMB12Y Physical Chemistry I
CHMB13Y Physical Chemistry II
CHMB135 Introduction to Inorganic Chemistry
CHMB155 Environmental Chemistry
CHMC11F Principles of Analytical Instrumentation
CHMC165 Analytical Instrumentation
CHMC125 Topics in Biophysical Chemistry
CHMC31F Intermediate Inorganic Chemistry
CHMC41F Basic Organic Chemistry

If CHMB22Y is chosen, MATA40Y & PHYTA40Y are prerequisites; if CHMC41F is chosen, CHMB42Y and MATB41F are prerequisites.

CHMB22Y General Chemistry

Nuclear chemistry, atomic and molecular structure, inorganic solids, bonding in organic compounds, states of matter and equations of state, thermochemistry, chemical equilibrium in the gas phase and in solutions; reaction kinetics.

The course includes the quantitative description of gases, solids and solutions and develops ideas of bonding and structure in chemical compounds based on Lewis structure, VSEPR and simple molecular orbital theory. Reactions and equilibria in chemical systems are explored through their thermodynamic properties and chemical kinetics. Time permitting, descriptive topics such as introductory organic chemistry are used to round out the course. Two one-hour lectures per week. One four-hour laboratory and one one-hour tutorial in alternating weeks.

Exclusions: CHMB125, 133, 135, 137, 139, 151
Prerequisite: OAC Chemistry or Grade 12 Chemistry and permission of instructor; OAC Calculus.
Co-requisite: None. But MATA27Y is strongly recommended and is required for some higher level chemistry courses.

Session: Winter

CHMB16F Techniques in Analytical Chemistry

Telephone ID #: 0283163

An introduction to the principles and methods of chemical analysis and the provision of practical experience in analytical laboratory methods.

The course deals primarily with quantitative chemical analysis. Classical methods of volumetric analysis, sampling techniques, statistical handling of data studied, as well as a brief introduction to spectrophotometric and electroanalytical methods. Two one-hour lectures and a four-hour laboratory every week.

Exclusion: CHMB13Y
Prerequisite: CHMB41Y
Recommended: CHMB318

CHMB22Y Introductory Physical Chemistry

Telephone ID #: 0282225

Topics in Physical Chemistry with an emphasis on biological applications. The course will discuss fundamental principles using (bio)chemical examples; equilibrium thermodynamics, energy and entropy in relation to chemical and biochemical processes; chemical kinetics, reaction rates and mechanisms; diffusion processes; thermodynamics and kinetics in open systems, with selected (bio)chemical examples: photochemistry; spectroscopy. Two one-hour lectures per week.

Exclusion: CHMB222, 223, 225
Prerequisites: CHMA40Y & MATA40Y, [PHYA10F or PHYA10S] and [PHYA10F or PHYA10S]
Co-requisite: MATB41F is strongly recommended but not required. Note that MATB41F is a prerequisite for CHMB22B

Session: Winter Day

CHMB315 Introduction to Inorganic Chemistry

Telephone ID #: 0283353

Fundamentals of Inorganic Chemistry. Structure and bonding of molecules and solids; introduction to symmetry and spectroscopy applied to inorganic systems; acid-base concepts; crystal field theory; reduction processes; coordination compounds; selected aspects of the descriptive chemistry of main group, transition and metal organiccatalytic compounds. The laboratory will provide practical examples of some of the topics covered in the lectures. Two one-hour lectures and a one-hour tutorial per week, and a three-hour laboratory in recent weeks.

Exclusion: CHMB333Y
Prerequisite: CHMB40Y

CHMB41Y Organic Chemistry I

Telephone ID #: 0282446

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: CHMB420, 245, 249, 258, 265
Prerequisite: CHMA40Y
Session: Winter Day

CHMB505 Environmental Chemistry

Telephone ID #: 0282553

An investigation of aspects of chemical substances and processes as they occur in the environment, including both naturally occurring and synthetic chemicals.

This course will include an introduction to atmospheric chemistry, aqueous chemistry, some agricultural and industrial chemistry, and chemical analysis of contaminants and pollutants. Specific topics may include depletion of the ozone 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.

Prerequisite: CHMA40Y
Exclusion: CHMB40Y, CHMB310
Session: Winter Day

CHMC22F Advanced Physical Chemistry

Telephone ID #: 0283223

A continuation of CHMB22Y. Further topics in physical chemistry are treated, including molecular spectroscopy, topics in statistical mechanics and advanced topics in kinetics. The spectroscopy portion will primarily be concerned with the one- and interpretation of various techniques (IR, UV/VIS, NMR, etc.). Both equilibrium and non-equilibrium statistical mechanical theories will be discussed, through calculation of partition functions or model systems (equilibrium) and treatment of diffusion and other transport properties, as well as the effects of noise (non-equilibrium).

The treatment of the subject will cover oscillatory reactions, with examples drawn from chemistry, biochemistry and
ecology. The approach of this course is more theoretical than that of CHMIC255. Exclusions: CHM222. Prerequisites: CHM222 & MAT341F. MAT242S is strongly recommended. Session: Winter Day
NOTE: This course will be replaced by CHMIC21F. Topics in Biophysical Chemistry, in 1998/99. See description below.

CHMIC25F Environmental Physical Chemistry
Telephone ID #: 02832553
An introduction to physical chemistry, topics of environmental and ecological importance, including colloidal and interfacial chemistry; atmospheric chemistry and large scale physical and chemical transport processes. Colloidal chemistry deals with thermodynamic stability and phase equilibria in colloids. Atmospheric chemistry treats the chemical kinetics and photochemistry of the atmosphere, especially as these relate to pollution and cloud depletion mechanisms. Transport properties such as percolation and diffusion are treated in an environmental setting. This course has a more applied approach than that of CHMIC22F. Prerequisites: CHM222Y. Exclusion: CHM310. Session: Winter Day
NOTE: This course will not be offered after 1997/98.

CHMIC26S Experimental Physical Chemistry
Telephone ID #: 02832653
An introduction to modern techniques in physical chemistry, through experimentation and computer simulation. Computer modelling experiments will examine time-dependent phenomena such as complex and oscillatory chemical reactions. "Real" experiments on kinetics, thermodynamics and spectroscopy will illustrate the topics covered in the lectures (CHMIC22F, CHMIC22F and C325), with some emphasis on environmental systems. Exclusion: CHM222T, CHM222Y. CHM208, 260, 368, 369. Prerequisite: CHM222Y. Co-requisite: CHM222Y. Session: Winter Day
NOTE: This course will not be offered after 1997/98.

CHMIC28S Inorganic Chemistry II
Telephone ID #: 02832855
The analysis of the interaction of small molecules with proteins; enzyme kinetics and allosteric enzymes; mechanisms of enzyme action. Three one-hour lectures per week. (NOTE: the third hour will be used for a combination of lectures, tutorials, and exams.) Exclusion: BRIC353Y, BRIC223Y. BCH302Y, 321. Prerequisite: BRIC201Y or BRIC310Y and CHM014Y
Session: Winter Day
J.W. Gurd

BGVC115 Biochemistry I: Protein Structure and Genetics
Telephone ID #: 02831155
A course designed to introduce students to the properties and behaviour of proteins and enzymes. Beginning with the chemistry of the amino acids the course will analyze 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 structure, tertiary and quaternary structures of proteins; protein motifs; protein domain structures; glycoproteins, lipoproteins, protein-protein and protein-DNA interactions; problems involving these and related procedures. One two-hour lecture/tutorial per one four-hour lab each week. Exclusion: [IIC0631, IBC316H, BCH3701, 371, BRIC103 or BRIC353Y, BRIC201Y, BRIC310Y and CHM204Y]
Session: Winter Day
J.W. Gurd

BGVC115 Biochemistry II: Bioenergetics & Metabolism
Telephone ID #: 02831553
A course designed to introduce students to cellular metabolism, the process by which living organisms are able to extract and utilize energy from their environment for the maintenance of life. Topics to be discussed will include: basic principles of bioenergetics; chemical energetics and oxidative phosphorylation; carbohydrate metabolism including glycolysis and the TCA cycle; aspects of the metabolism of lipids and amino acids; metabolic control mechanisms including allosteric control, protein phosphorylation systems, and hormonal regulation of metabolism. The integration of metabolic pathways will be discussed. One three-hour lecture per week. (NOTE: the third hour will be used for a combination of lectures, tutorials, and exams.) Exclusions: [IIC0631, IBC316H, BCH3701, 321, BCH302Y, 321, BRIC201Y or BRIC310Y and CHM204Y]
Session: Winter Day
J.W. Gurd

BGVC125 Practical Approaches to Biochemistry
Telephone ID #: 02831253
A course designed to introduce students to a range of experimental approaches used in biochemical research. The course will introduce students to practical and theoretical aspects of a variety of procedures used in the biochemical laboratory including: spectroscopy; chromatography; electrophoresis; the use of microscopy and other techniques. In addition to practical experience, students will be expected to solve numerical problems involving these and related procedures. One two-hour lecture/tutorial per one four-hour lab each week. Exclusion: [IIC0631, IBC316H, BCH3701, 371, BRIC103 or BRIC353Y, BRIC201Y, BRIC310Y and CHM204Y]
Session: Winter Day
J.W. Gurd

CHMIC26S Inorganic Chemistry Laboratory
Telephone ID #: 02832653
A study of synthetic techniques as applied to inorganic compounds, both main group and transition metal examples, including some organometallic complexes. This course is intended to complement both CHMIC33Y and CHMIC25S by illustrating the theoretical concepts presented in these two courses through primarily synthetic experiments. Characterization of the products obtained will be done by both classical and instrumental methods, primarily infrared spectroscopy. The laboratory meets one day each week in the spring term for 6 hours. Exclusions: CHM268, 269, 368, 369. Prerequisite: CHM331Y. Co-requisite: CHMIC33, CHMIC31F.
Session: Winter Day
NOTE: This course will not be offered after 1997/98.

CHMIC24Y Organic Chemistry II
Telephone ID #: 02832455
An in-depth treatment of organic reactions and synthesis, stereochemistry and configurational analysis, spectroscopy of organic molecules and reaction mechanisms, and an introduction to aromaticity, photochemistry, free radicals, polymers, organometallic compounds, and the chemistry of naturally occurring molecules such as terpenes, steroids and carbohydrates. This course provides further experience in organic chemistry to students who have completed one course in the subject. The laboratory experiments are designed to complement the topics covered in lectures, with an emphasis on more advanced techniques, and the use of modern physical
Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusions: CHM441Y, Cиж, 439, 440, 449
Prerequisite: Permission of instructor
Course requirement: Students undertaking a project in Inorganic Chemistry are required to take this advanced laboratory course.
Session: Session Day, Winter Day

CHM500Y Library Thesis
A report on a selected current topic in inorganic chemistry based on literature research and carried out under the direction of one of the chemistry staff. Approximately 250 hours of work are expected.
The objective is to obtain a thorough understanding of the topic of current interest and to prepare a comprehensive and critical report on this subject. The student will also develop familiarity with the techniques of searching the chemical literature. The topic will be selected in conference with a member of the chemistry staff. The student will be monitored during periodic consultations with the staff member.
Students are advised that they must obtain consent from the supervising instructor before registering for this course.
Exclusions: CHM505Y (CHM470H5I) CHM505H
Prerequisite: Permission of instructor.
Course requirement: Only for individuals who have completed fifteen 1000-level courses, including at least two C-level Chemistry courses, and who are passing one of the Chemistry Programmes.
Session: Session Day, Winter Day

CHM600H Library Thesis
Similar to CHM500Y but representing 150 hours of work.
The objective is to obtain a thorough understanding of a topic of current interest and to prepare a comprehensive and critical report on this subject. The student will also develop familiarity with the techniques of searching the chemical literature. The topic will be assigned in conference with a member of the chemistry staff.
Course requirement: Students undertaking a project in Inorganic Chemistry are required to take this advanced laboratory course.
Session: Session Day, Winter Day

CHM615Y Analytical Instrumentation
A laboratory course to accompany CHM611F. This course will provide basic experience in the use of modern chemical instrumentation. Experiments will include molecular spectrophotometry, mass spectrometry, electrochemical methods (deposition, voltammetry), and chromatographic methods (gas, gas and high performance liquid chromatography). One lecture tutorial and one four-hour laboratory per week.
Exclusions: CHM611Y
Prerequisite: CHM611F

CHM621F Topics in Biophysical Chemistry
Advanced topics in Physical Chemistry with emphasis on biomolecular systems. Spectroscopic methods for (bio) molecular structure determination, including IR, NMR, UV/Vis; colloidal chemistry; polymers and holography; bonding structure and statistical mechanics; physical chemistry of membranes, active transport and dilution; oscillatory chemical reactions. Practical and computer work will complement the lecture material with a mix of experimental and simulation. Two one-hour lectures per week and a four-hour computer/practical session in alternating weeks.
Prerequisites: CHM322Y and MATH41F
Offered in 1996/97 to replace CHM322F.

CHM622F Intermediate Inorganic Chemistry
A more detailed discussion than in CHM322F of the structure, bonding, spectroscopy, reactivity and size group transition metal and organometallic compounds. Special topics may include inorganic solids and materials, biologically and environmentally important inorganic compounds, and catalysis. The laboratory work will introduce a variety of synthesis techniques, with characterization of products by both classical and instrumental methods. Two one-hour lectures and a one-hour tutorial per week, and a six-hour laboratory in alternating weeks.
Prerequisite: CHM611F
Recommended preparation: CHM611Y, CHM616F, CHM622Y, CHM644F
Replaces CHM333S
Courses to be introduced in 1999/2000

CHM0519S Environmental Analysis
This course will apply the techniques of traditional chemistry to environmental sampling. Methods of air and water sampling in the environment will be discussed. Various forms of spectroscopy, electrochemical and chemical techniques applicable to environmental problems will also be studied. Samples for controls, strategy and statistical analysis will be explored in normal and hazardous conditions.
Pre-requisite: CHM012F, CHMC168

CHM0652S Atmospheric Chemistry
Chemical and physical processes in the atmosphere which affect the environment. Topics include: photochemistry and reaction kinetics in the gas, aqueous and interfacial phases of the atmosphere; stratosphere depletion and urban smog; acid precipitation; the "greenhouse effect"; atmospheres of other planets.
Pre-requisite: CHMB555, CHMC232F, MATB35F
Offered in alternate years.

CHM0656S Special Topics in Environmental Chemistry
Specific examples of problems and of environmental interest will be discussed in depth. The creation of environmental hazards and their natural or artificial temporal will be considered. Typical chemical hazards of this kind are freons which damage the ozone layer and PCB's which are used in electrical equipment. The prediction, modelling, control and recovery from such hazards will be discussed.
Pre-requisite: CHMB555, CHMB165F

Computer Science (B.Sc.)

Faculty List
C. Dyar, B.Sc., M.Sc., Ph.D., Professor
W.H. Darlington, B.Sc. (U.B.C.), M.Sc., Ph.D., Professor
V. Hadzic, M. A. (Princeton), B.A. (Harvard), Professor
A. Kerr, B. S., M.S.E., M.A., Ph.D., (Princeton), Professor
N. Cheng, B. Sc., Senior Tutor
G.J. Capit, B.Sc. (U.B.C.), Senior Tutor

Discipline Representative: Graeme Hirn (287-7257)

Computer science is the study of the use of computers to process information. The focus of this information may vary widely, from the business person's need for an accounting system to the scientist's experimental results to the linguist's task. One of the fundamental concepts in computer science is the algorithm — a list of instructions that specify the steps required to solve a problem. Computer science is concerned with producing correct, efficient, and maintainable algorithms for a wide variety of applications. Closely related is the development of tools to foster these goals: programming languages for expressing algorithms; operating systems to manage the resources of a computer; and various mathematical and statistical techniques to study the correctness and efficiency of algorithms.

Theoretical computer science is also concerned with the inherent difficulty of problems that can make them intractable by computers. Numerical analysis, data management systems, computer graphics, and artificial intelligence are concerned with the applications of computers to specific problem areas. The Special Programme in Computer Science prepares a student for graduate study and for a professional position in the computer field. Students interested in computer studies should also refer to Specialist and Major Programmes in Cognitive Science.

Please refer to the Physical Sciences brochure, on pages 118 for a list of the Programme offered. Descriptions of these programmes are published as a supplement of this section.

SPECIAL PROGRAMME IN COMPUTER SCIENCE

Supervisor: O. Cupps (287-7223)

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:
CSCA58F/S Introduction to Computer Science
MATA04Y Linear Algebra
MATB25Y Calculus
PHYA20Y Principles of Classical Physics
PHYA21S Principles of Modern Physics

Second Year:
CSCB28F File Structures and Data Management
CSCB38F Discrete Mathematics
CSCB58S Computer Organization

MATB35F Techniques of the Calculus of Several Variables I
MATB45S Techniques of the Calculus of Several Variables II

Two of:
MATB44S, MATB60S, MATC51F, MATC59F, PSCB20P

Students intending to proceed to graduate study in computer science are advised to take MATB45S.

Third Year:
CSCC24S Principles of Programming Languages
CSCC64S Effective and Efficient Computing
CSCC78F Data Structures and Algorithm Analysis
STAB22F Statistics
STAB47S Introduction to Probability Theory and Mathematical Statistics

Fourth Year:
CSCB69S Methods and Tools for Software Development
CSCC50F Numerical Algorithms and Optimization
CSCC51S Numerical Approximation, Integration and Ordinary Differential Equations
CSCC85S Microprocessors

one of:
CSCA54F, 340, 372, 40B, D18418, 428, D346434, 454, 458, 468, 484, 485, 488, EC3469

one of:
CSCA44F, 448, 454, 455, 456, 478, 484, C132F

PSCD01F The Physical Sciences in Contemporary Society
PSCD03S Computers in Contemporary Society

SPECIAL PROGRAMME IN COMPUTER SCIENCE AND INFORMATION SYSTEMS

Supervisor: G. Hirn (287-7257)

NOTE: Due to enrolment restrictions in required Management courses, registration in this programme is limited. A maximum of ten students will be admitted annually to the second year of the programme. Selection will be based on grades specified for the first year of the programme with a minimum

MATB35F Techniques of the Calculus of Several Variables I
MATB45S Techniques of the Calculus of Several Variables II

Two of:
MATB44S, MATB60S, MATC51F, MATC59F, PSCB20P

Students intending to proceed to graduate study in computer science are advised to take MATB45S.

Third Year:
CSCC24S Principles of Programming Languages
CSCC64S Effective and Efficient Computing
CSCC78F Data Structures and Algorithm Analysis
STAB22F Statistics
STAB47S Introduction to Probability Theory and Mathematical Statistics

Fourth Year:
CSCB69S Methods and Tools for Software Development
CSCC50F Numerical Algorithms and Optimization
CSCC51S Numerical Approximation, Integration and Ordinary Differential Equations
CSCC85S Microprocessors

one of:
CSCA54F, 340, 372, 40B, D18418, 428, D346434, 454, 458, 468, 484, 485, 488, EC3469

one of:
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Two of:
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Third Year:
CSCC24S Principles of Programming Languages
CSCC64S Effective and Efficient Computing
CSCC78F Data Structures and Algorithm Analysis
STAB22F Statistics
STAB47S Introduction to Probability Theory and Mathematical Statistics

Fourth Year:
CSCB69S Methods and Tools for Software Development
CSCC50F Numerical Algorithms and Optimization
CSCC51S Numerical Approximation, Integration and Ordinary Differential Equations
CSCC85S Microprocessors

one of:
CSCA54F, 340, 372, 40B, D18418, 428, D346434, 454, 458, 468, 484, 485, 488, EC3469

one of:
CSCA44F, 448, 454, 455, 456, 478, 484, C132F

PSCD01F The Physical Sciences in Contemporary Society
PSCD03S Computers in Contemporary Society
PHYS 215 Principles of Modern Physics
or
PHYS 216 Physics of Electromagnetic Devices

First or Second Year:
CS/CE 305 Fundamental Data Structures and Techniques

Second Year:
CS 310 Discrete Mathematics
CS 320 Computer Organization
CS 330 Geometry I
CS 340 Algebra I
CS 350 Techniques of the Calculus of Several Variables I
CS 360 Techniques of the Calculus of Several Variables II
CS 380 Introduction to Analysis

Third Year:
CS/CE 445 Principles of Programming Languages
CS/CE 446 Effective and Efficient Computing
CS/CE 478 Data Structures and Algorithm Analysis
MAT 479 Galois Theory
MAT 481 Differential Equations I
MAT 482 Differential Equations II
STAB 420 Statistics
STAB 475 Introduction to Probability Theory and Mathematical Statistics

Fourth Year:
one of:
MAT 575, MAT 580, MAT 581, or MAT 582

one or two of:
CS/CE 505, CS/CE 506, or CS/CE 515

One or more of:
CS/CE 455 Principles of Classical Physics
CS/CE 456 Principles of Modern Physics

or
PHYS 425 Principles of Modern Physics
or
PHYS 426 Principles of Classical Physics

Supervisor: C. C. Dye (287-7506)

PHYS 215 Principles of Modern Physics
or
PHYS 216 Physics of Electromagnetic Devices

First or Second Year:
CS/CE 305 Fundamental Data Structures and Techniques

Second Year:
CS 310 Discrete Mathematics
CS 320 Computer Organization
CS 330 Geometry I
CS 340 Algebra I
CS 350 Techniques of the Calculus of Several Variables I
CS 360 Techniques of the Calculus of Several Variables II
CS 380 Introduction to Analysis

Third Year:
CS/CE 445 Principles of Programming Languages
CS/CE 446 Effective and Efficient Computing
CS/CE 478 Data Structures and Algorithm Analysis
MAT 479 Galois Theory
MAT 481 Differential Equations I
MAT 482 Differential Equations II
STAB 420 Statistics
STAB 475 Introduction to Probability Theory and Mathematical Statistics

Fourth Year:
one of:
MAT 575, MAT 580, MAT 581, or MAT 582

one or two of:
CS/CE 505, CS/CE 506, or CS/CE 515

One or more of:
CS/CE 455 Principles of Classical Physics
CS/CE 456 Principles of Modern Physics

or
PHYS 425 Principles of Modern Physics
or
PHYS 426 Principles of Classical Physics

Supervisor: C. C. Dye (287-7506)

PHYS 215 Principles of Modern Physics
or
PHYS 216 Physics of Electromagnetic Devices

First or Second Year:
CS/CE 305 Fundamental Data Structures and Techniques

Second Year:
CS 310 Discrete Mathematics
CS 320 Computer Organization
CS 330 Geometry I
CS 340 Algebra I
CS 350 Techniques of the Calculus of Several Variables I
CS 360 Techniques of the Calculus of Several Variables II
CS 380 Introduction to Analysis

Third Year:
CS/CE 445 Principles of Programming Languages
CS/CE 446 Effective and Efficient Computing
CS/CE 478 Data Structures and Algorithm Analysis
MAT 479 Galois Theory
MAT 481 Differential Equations I
MAT 482 Differential Equations II
STAB 420 Statistics
STAB 475 Introduction to Probability Theory and Mathematical Statistics

Fourth Year:
one of:
MAT 575, MAT 580, MAT 581, or MAT 582

one or two of:
CS/CE 505, CS/CE 506, or CS/CE 515

One or more of:
CS/CE 455 Principles of Classical Physics
CS/CE 456 Principles of Modern Physics

or
PHYS 425 Principles of Modern Physics
or
PHYS 426 Principles of Classical Physics

Supervisor: C. C. Dye (287-7506)
SPECIALIST PROGRAMME IN COMPUTER SCIENCE AND STATISTICS

Supervisor: S. Parent (887-7224)

The Specialist Programme in Computer Science and Statistics provides a student with the computational and statistical background required in many applications and fields. The programme students to graduate in computer science and mathematics are advised to take MATB452.

First Year:

CSCA5505 Introduction to Computer Science
MATA4510 Linear Algebra
MATA4520 Calculus
PRKA4050 Principles of Classical Physics
PRKA5110 Principles of Modern Physics
PRKA5108 Dynamics of Classical Systems
PRKA5210 Principles of Modern Physics
PRKA5310 Physics of Electromagnetic Devices

Second Year:

CSCB6050 Fundamental Data Structures and Techniques
CSCB6250 Management

Third Year:

CSCA6535 Principles of Programming Languages
CSCB6545 Effective and Efficient Computing
CSCB7780 Data Structures and Algorithm Analysis

Fourth Year:

CSCA6525 Multivariate Analysis
STAC5530 Experimental Design
STAC5570 Time Series Analysis
STAC5520 Stochastic Processes
STAC5570 Regression Analysis

Second or Third Year:

One of:

MATB310, MATB410, MATB705,
MATC301, MATC401, PSCD200

Students intending to proceed to graduate study in computer science are advised to take MATB452.

Acknowledged by the University.

Performance on work terms will be evaluated by both employer and co-ordinator. Students must submit a report for each work term for evaluation.

To maintain standing in the programme, in the final year, students are required to enrol in a research paper with a specialist certificate in Computer Science and Physical Sciences.

Admission to the Programme

a. Applicants from Grade 13 OAC programmes (or equivalent) should indicate their choice of University of Toronto at Scarborough and the Co-operative Programme in Computer Science and Physical Sciences on their Application for Admission to an Ontario University. They will then be sent a special application form for admission to the Co-operative Programme.

b. From first-year students: Accepted by the University and College may apply. The timing of their work placement will depend on the particular types of courses they have already completed.

Admissions are granted on the basis of the applicant's academic performance, background in relevant subjects, and a letter of reference from a high school teacher or university instructor. An interview may be required. Admission is limited and only a small number of applicants can be accepted each year. Decisions about admission are normally made in mid-April for the September intake. To be considered for the first round of selection, prospective students must have applied to the University no later than April 1. Therefore, it is essential that the applicant apply to the University at least six weeks before this date.

Notes:

STUDENTS ARE INDIVIDUALLY RESPONSIBLE TO ENSURE THAT THEY SATISFY THE REQUIREMENTS FOR GRADUATION.

For programme outlines, please refer to the Physical Sciences I Scarborough Specialist Programme in Computer Science and Physical Sciences Guide. Note that changes need not be made in exactly the indicated order, but if an alternative ordering is adopted, care must be taken to ensure that prerequisites are satisfied and conflicts avoided.
Eligibility for work placements

To compete for a work term placement a student must be in good standing in the programme and must have completed at least ten F.C.E.'s.

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

COSP210/COSH Computer Science and Physical Sciences Co-op Work Term

Work terms are an integral part of the co-op curriculum. Practical work experience in an appropriate, related field is alternated with study periods to enhance academic studies and develop professional and personal skills. Work term reports are required at the completion of each work term. Time coordination in a co-op programme is based on a student's ability to meet both the academic and work term requirements. To be eligible for work terms, students must be in good standing in the programme and must have completed 10 courses. Course credit of 0.5 F.C.E. is granted for each four-month work period. Work-term credits are in addition to the 20 full-course degree requirements and are graded on a Credit, No Credit system. There are no additional course fees for work terms.

CSC405/5F/6H How Computers Are Used

Telephone ID: 07110253

An introduction to computers and how to use them. This course includes a study of computer operation (communications, files, security), common applications (games, word processing, spreadsheets) and problem solving (basic programming concepts). Other applications and topics include data management, media and multimedia, telecommunications, office automation, electronic mail and Internet tools. Students will learn computer basics, how computers are used, not to teach programming. Frequency for non-science students, but may be followed by other CSC courses.

Exclusion: SMC104H, VIC104H. This course may not be taken after or concurrently with any other CSC course.

Session (F): Winter Day

Session (P): Summer Evening

CSC406/6F Introduction to Computer Programming

Telephone ID: 0710683

An introduction to basic concepts and terminologies of computer programming.

Introduction to programming using the Object Oriented Turing language. Conditional statements and loops; arrays and records; operations on strings and numbers; subprograms. Data and program structures.

This course is intended for students with no prior exposure to computer programming. Students who have sufficient programming experience may enroll directly in CSC438, consult the instructor or the supervisor of studies for guidance and for a copy of the information sheet "Can I skip Computer Science A00?". Students enrolled in CSC438 and find the course too difficult may "drop down" to CSC406. The deadline for "dropping down" is October 15. (The option of "dropping down" is not available in the spring, since CSC406 is not offered in that session.)

Exclusion: CSCA45F/PS, CSCA57F/PS, CSCA58F/PS, CSC108, CSC149.

Prerequisite: Grade 12 mathematics. Session: Winter Day

CSC437/5F Introduction to Scientific Computing

Telephone ID: 0711753

An introduction to the use of computers in the physical and biological sciences. Choice and design of algorithms and their implementations in a high-level computer language, such as C or FORTRAN, for the solution of problems arising in the physical and biological sciences. Topics will include elementary numerical analysis, such as numerical integration, error analysis, methods of solving systems of linear equations, numerical root finding, and the use of graphical display devices and software for visualization of physical systems will be considered. The use of computer algebra systems will also be considered. (Intended primarily for physical and biological science students who do not plan to pursue any of the programmes in computer science or cognitive science.)

Exclusions: CSCA06, A55, A58, 108, 149.

Co-requisite: MATA26Y & one A-level science.

Session: Winter Day

CSC458F/6S Introduction to Computer Science

Telephone ID: 0715883

Telephone ID: 0715883

Design and analysis of algorithms, reasoning about programs, correctness and efficiency. Procedural abstraction and modular design: subprograms, recursion and modules. Data abstraction: Data types and data structures. Comparison of several searching and sorting algorithms.

Students who have insufficient programming experience must take CSCA06 before CSCA58. Consult the instructor or supervisor of studies for guidance and for a copy of the information sheet "Can I skip Computer Science A00?". Students enrolled in CSCA58 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: CSCA57, CSCA43, CSC150

Prerequisite: OAC in Mathematics & one other OAC in mathematics & sufficient programming experience.

Session: Winter Day

CSC481F Methods and Tools for Software Development

Telephone ID: 0712053

Techniques for programming efficiently by making use of operating-system facilities and standard utilities and software tools. Tools discussed and used are from the UNIX environment using the C programming language. Topics from: Programmable command interpreters ("shells"), Program generators, networking, inter-process communication, windows programming, challenging assignment.

Prerequisites: Computer literacy or proficiency in C.

Session: Winter Day

CSC482F/6F File Structures and Data Management

Telephone ID: 0712283

Introduction to file structures and the basic techniques for storing, accessing, and managing long-term data in a computer system. Emphasis on hardware aspects of data processing: processors, storage devices, communication, file I/O control. Techniques for organizing and managing files: sequential, direct, indexed files, multikey files, integrated files, file systems. Introduction to database management systems with emphasis on relational data base systems.

Exclusion: CSC228

Prerequisite: CSCA58F/6S

Session: Winter Day

CSC57F/6F Discrete Mathematics for Computer Science

Telephone ID: 0712383

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). Applications to topics such as program correctness, formal program verification, algorithms from graph theory, and elementary set theory.

Exclusion: CSC235

Prerequisite: CSCA58F/6S

Session: Winter Day

CSC848 Computer Organization

Telephone ID: 0712583

This course is designed to give students an understanding of the operation and the hardware of a modern digital computer. Specific topics include: introduction to Boolean algebra, the design and analysis of gate 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 complete a design using the digital logic circuits.

Enrollment limit: 10. Exclusion: CSC258

Prerequisite: CSCA57F/PS or CSCA58F/PS (strongly recommended: PHYA31S (PHYA11S)

Session: Winter Day

CSC170F Fundamental Data Structures and Techniques

Telephone ID: 07127053

Standard programming methods, with an introduction to C/C++. Use of classes to represent abstract data types, graph representation and graph algorithms. Simulation: Data structures and programming for event-driven models. Representation of floating-point numbers; introduction to numerical computation using dynamic programming. Throughout the course, programming assignments stress both the proper use of abstract data types (files, stacks, trees, heaps) and
approaches to writing larger, more complex programs.
Prerequisite: CSC3050
Pre or co-requisite: MAT2070 & one A-
level science course.
Session: Winter Day

CSC2455 Principles of Programming Languages
Telephone ID #: 03731345
A wide variety of programming styles and the programming languages that support them. Emphasis on recursion and concurrency; other programming
regimes such as backtracking and coroutines. Language features such as
pattern matching, programs as data, and module encapsulation. Examples from
languages such as Lisp, Concurrent
Eiffel, Prolog, Smalltalk, and Simula.
Enrolment limit: 100
Exclusion: CSC324
Prerequisite: CSC2465 (strongly recommended: CSC2590)
Session: Winter Day

MATCH2F Combinatorics
Telephone ID #: 20431133
A brief survey of the field of discrete mathematics with emphasis on problem
solving. Elementary counting,
generating functions and difference
equations, permutations with restriction,
Pólya counting, graphs, network flow problems, balanced incomplete block
designs, incidence structures.
Prerequisite: MAT2445F (CSC1055F)
& at least one other B-level course in
mathematics or computer science.
Session: Winter Day

CSC250F Numerical Algebra and
Optimisation
Telephone ID #: 03735033
The efficiency and stability of solution
techniques for systems of linear
equations and least squares problems,
including LU- and QR-based methods.
Algorithms for optimization problems,
including linear programming, and for system of nonlinear equations.
Exclusion: CSC3505, CSC3550
Prerequisite: CSC250F or
CSC2550F (CSC1505F) & MAT2405Y
& MAT2410Y
Session: Winter Day

CSC2551 Numerical Approximation,
Integration and Ordinary Differential
Equations
Telephone ID #: 03735153
Analysis of methods for approximation,
integration, and the solution of ordinary
differential equations. Emphasis on
the convergence and stability properties of
the algorithms, rather than on their
implementation.
Exclusion: ACT232H, CSC361H,
(JMCC351F), CSC351
Prerequisite: CSC250F or
CSC2550F (CSC1505F) & MAT2405Y &
MAT2410F
Recommended Preparation: CSC2550F
Session: Winter Day

CSC2645 Effective and Efficient
Computing
Telephone ID #: 03736453
Measuring algorithm performance.
Techniques of efficient algorithm design:
divide and conquer, greedy method,
dynamic programming, graph traversal,
change of representation. Introduction
to complexity theory: models of
computation, P, NP, polynomial time
reduction, NP-completeness.
Introduction to the theory of
computation: Church’s thesis,
computable and uncomputable functions,
recursive and recursively enumerable
sets, universality, many-one reduction.
Exclusion: CSC234
Prerequisite: CSC2350F
Session: Winter Day

CSC277F Data Structures and Algorithm
Analysis
Telephone ID #: 03737733
Abstract data types such as priority
queues and dictionaries. Advanced
data structures such as hash tables,
memory-resident information, such as
textual leaves, leftist trees, self-adjusting lists
and balanced search trees. Algorithm
analysis: worst case, average case, and
amortized complexity. Introduction to
lower bounds. Emphasis is given to
problem-solved Prapro and a theoretical
treatment of the data structures.
Exclusion: CSC2375
Prerequisite: CSC2700F & CSC2350F
Session: Winter Day

CSC285F Microprocessor Systems
Telephone ID #: 03738533
A study of hardware and software aspects
of microcomputers and microprocessors.
This course will examine instruction
set, addressing modes, memory devices.
bus structures, input/output and interrupt
mechanisms. Assembly language and
high-level language programming.
System and applications software.
Laboratory experiments will provide
hands-on experience.
Enrolment limit: 45
Exclusion: ECE185
Prerequisite: CSC2350F &
PHYA100A/AB or PHYA200A/AB
(PHYA105 or PHYA210)
& permission of instructor
Session: Winter Day

CSC294F Computer Science Project
Telephone ID #: 03740443
This half-course involves a significant
project in any area of computer science.
The project may be undertaken
individually or in small groups. The
project is offered by arrangement with
a computer science faculty member,
at Scarborough or the St. George campus.
This course is intended for students
specializing in computer science. It can
be taken as an F or S course in a single
term, or as an H course spread over an
entire winter or summer session.
Projects must be completed by the last
day of classes in the term or session
the course is taken.
Students are advised that they must
come from the supervising instructor
before registering for this course.
Exclusion: CSC404
Prerequisite: (Three- or six-credit
computer science half-courses) & [a GPA of 2.50
& (preparation of the supervising
instructor) &
] & (project supervisor’s role of agreement to be
to the programme supervisory
by whom a special permission will be
issued for registration.
Session: Winter Day

CSC296F Computer Science Project
Telephone ID #: 03495451
Same description as CSC294F.

CSC296H Computer Science Project
Telephone ID #: 03495451
Same description as CSC294H.

CSC300F Microprocessor Systems
Telephone ID #: 03738533
A study of hardware and software aspects
of microcomputers and microprocessors.
This course will examine instruction
set, addressing modes, memory devices.

Physical Sciences - Environmental Science

Environmental Science (B.Sc.)

Faculty List
R. S. Brown, B.A., (Duluth), Ph.D.
(St. John) Professor
N. J. T. Sim, B.Sc. (Leicester), M.Sc.
(Nielsen, Ph.D. (East Anglia), Ph.D.
(Leicester), Professor
B. Greenwood, B.Sc., Ph.D. (Bristol),
Professor
V. T. Turner, B.Sc., M.Sc., Ph.D.
(U.N. Brussels), Ph.D. (Cornell),
Professor
J. A. W. Steel, B.Sc. (Reading), Ph.D.
(Albemarle), Professor
D. Williams, B.Sc. (Univ. Coll, N.
Wales), Dip Ed (Liverpool), M.Sc.,
Ph.D. (Waterloo), D.Sc. (Wales),
Professor
K. W. J. Howard, B.Sc., M.Sc. Ph.D.
(Imaging), Associate Professor
A. G. Price, B.Sc. (Water), M.Sc., Ph.D.
(Mcgill), Associate Professor
N. E. Williams, B.Sc. (Oxon), M.Sc.
(Waterloo), Ph.D. (Toronto) Associate
Professor

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

Exclusion: CSC405
Session: Winter Day

Courses Not Offered in 1990/91

MAT107F Graph Theory and Algorithms
for Its Applications
Prerequisite: MAT101F/15F
(MATH444) or CSC350F
and at least one other B-level
course in Mathematics or
Computer Science.

CSC405F Computer Graphics
Computer-Based Simulation
Modeling
Exclusion: CSC354
Prerequisite: CSC350F
& STA247F
Session: Winter Day

CSC203S Data Management Systems
Exclusion: CSC434
Prerequisite: CSC238, CSC257

137 Physical Sciences - Computer Science
Discipline Represented: B. Greenwood (1977-7226)
Human activity is the major cause of environmental changes, and the rate of those changes has accelerated enormously over the last 100 years. Understanding the dynamics of environmental change requires knowledge spanning many scientific disciplines. Environmental degradation such as surface and subsurface water pollution, depletion of resources, extinction of species and changes in climate are all related to a lack of understanding of environmental processes.
Environmental degradation has an impact not only on human beings, but on all species and most natural systems. Thus it is important to consider the role of these systems.

A Specialist or Co-operative Programme in Environmental Science requires a student to study in related disciplines such as Biology, Geography and Geology, with emphasis on fundamental sciences such as Physics, Mathematics and Chemistry. The programme is interdisciplinary in nature, and includes courses in other relevant disciplines, such as Environmental Economics and Environmental Law. One of the major thrusts of the programme is the importance of fieldwork and practical experience. Many of the academic courses reflect this, having strong field components, some entirely in the field. As an extension of this, the Co-operative Programme provides students with the opportunity to gain practical experience in the field.

Three streams are available:
1. Co-operative Environmental Science programmes
2. Environmental Science and Development Studies
3. Environmental Science and Education

The programme is designed to provide education and training which will produce highly qualified scientists with practical and field experience through course work and placement, with a view to employment in research, teaching, consultancy, government agency or regulatory work.

The course requirements for this programme include work-study experience through terms following completion of second year, and completion of third year. The work study terms, during the two summer terms, are intended to provide actual experience in the field of environmental science in placements that are judged to be supportive of the student's participation in the Programme.

Programme Admissions
Applicants may apply to the programme directly from secondary school or may apply as transfer students from colleges or first-year university. The timing of work placements for students who receive transfer credit will depend upon the particular university courses completed. When applying, applicants must indicate the special code for this program 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. To be considered for the first round of selection, on-campus applications must be received by the University no later than April 15. Therefore, it is essential that the applicant apply to the University at least six weeks prior to this date.

Note that enrolment in the programme is limited. Admissions are considered on the basis of the applicant's academic performance, background in relevant subjects, and two letters of reference from high school teachers or university instructors. An interview may be required.

Cost
Every student in a co-operative program is responsible for paying additional fees as established by the University of Toronto. All of the following are subject to change.

Year 1: Baseline Studies in Environmental Science

1. General Chemistry
2. Introduction to Environmental Science
3. Introduction to Planet Earth

or

1. Life On Earth: Introduction to Biological Systems
2. Environmental Scientists*

Electives
1/2 F.E.C.

Field Camp I
Field Geology
Geography
Geosystems
Geosciences
Geography
Geology

Biotechnology - Environmental Implications
Physical Oceanography
andLimnology
Field Course in Ecology
Marine Biology
Limnology
**Physical Sciences - Environmental Science**

**First Year:**

- **PHYS1** Introduction to Environmental Science
- **CHEM1** General Chemistry
- **BIOL1** Introduction to Environmental Science
- **CE1** Environmental Science

**Second Year:**

- **PHYS1** Introduction to Environmental Science
- **CHEM1** General Chemistry
- **BIOL1** Introduction to Environmental Science
- **CE1** Environmental Science

**Third Year:**

- **PHYS1** Introduction to Environmental Science
- **CHEM1** General Chemistry
- **BIOL1** Introduction to Environmental Science
- **CE1** Environmental Science

**Fourth Year:**

- **PHYS1** Introduction to Environmental Science
- **CHEM1** General Chemistry
- **BIOL1** Introduction to Environmental Science
- **CE1** Environmental Science

**Electives:**

- **PHYS1** Introduction to Environmental Science
- **CHEM1** General Chemistry
- **BIOL1** Introduction to Environmental Science
- **CE1** Environmental Science
### Second Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BGYB50Y</td>
<td>Ecology and Evolutionary Biology</td>
</tr>
<tr>
<td>BGYB52S</td>
<td>Ecology and Evolutionary Biology Laboratory</td>
</tr>
<tr>
<td>CHIM555</td>
<td>Environmental Chemistry</td>
</tr>
<tr>
<td>[STAB22F]</td>
<td>Statistics</td>
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<tr>
<td>or</td>
<td></td>
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<tr>
<td>CSAC57S</td>
<td>Introduction to Scientific Computing</td>
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### Third Year

<table>
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<th>Course Code</th>
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<tbody>
<tr>
<td>EES0535</td>
<td>Principles of Climatology</td>
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<tr>
<td>EES103F</td>
<td>Principles of Geomorphology</td>
</tr>
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<td>EES004F</td>
<td>Principles of Hydrology</td>
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<td>EES105F</td>
<td>Fundamentals of Soil Science</td>
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Elective: 1.5 F.C.E.

### Fourth Year

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<th>Course Code</th>
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<tr>
<td>EES015S</td>
<td>Environmental Economics and Law</td>
</tr>
<tr>
<td>PSCD01P</td>
<td>The Physical Sciences in Contemporary Society</td>
</tr>
</tbody>
</table>

**Elective Suggestion:**
- **ECS015** (3 F.C.E.)
- **ECS01S** (3 F.C.E.)
- **ECS01F** (1.5 F.C.E.)

**STREAM ‘C’**

### First Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIM032Y</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>ESSA015</td>
<td>Introduction to Environmental Science</td>
</tr>
<tr>
<td>ESSA06F</td>
<td>Introduction to Planet Earth</td>
</tr>
<tr>
<td>MATB26Y</td>
<td>Calculus</td>
</tr>
<tr>
<td>PHYA10F</td>
<td>Dynamics of Classical Systems</td>
</tr>
</tbody>
</table>

**Elective Suggestion:**
- **ECS015** (3 F.C.E.)

**Second Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>EES04B</td>
<td>Principles of Analytical Instrumentation</td>
</tr>
<tr>
<td>CHMC11F</td>
<td>Geomorphology</td>
</tr>
</tbody>
</table>

**Elective Requirements:**
- 6.5 F.C.E. from both Streams
- 2 F.C.E. from either Stream

**Elective Suggestion:**
- **ECS01S** (3 F.C.E.)

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**MAJOR PROGRAMME IN ENVIRONMENTAL SCIENCE**

**Supervisor:** T. Price (S7/7357)

The Major Programme is designed to give students a broad background in the basic principles and applications of Environmental Science. It is intended for students with a good background in the natural sciences and who wish to pursue a career in environmental or related fields.

**First Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESSA015</td>
<td>Introduction to Environmental Science</td>
</tr>
<tr>
<td>ESSA04S</td>
<td>Life on Earth: Introductory Biology for Environmental Scientists</td>
</tr>
<tr>
<td>ESSA06F</td>
<td>Introduction to Planet Earth</td>
</tr>
<tr>
<td>PHYA10F</td>
<td>Dynamics of Classical Systems</td>
</tr>
</tbody>
</table>

**Elective Suggestion:**
- **CHMC11F** (1 F.C.E.)

**Second Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGYB50Y</td>
<td>Ecology and Evolutionary Biology</td>
</tr>
<tr>
<td>ESS01F</td>
<td>Principles of Geomorphology and Sedimentology</td>
</tr>
<tr>
<td>ESS02F</td>
<td>Principles of Geomorphology and Sedimentology</td>
</tr>
<tr>
<td>ESS03F</td>
<td>Principles of Geomorphology and Sedimentology</td>
</tr>
</tbody>
</table>

**Elective Requirements:**
- 9 F.C.E. from both Streams
- 2 F.C.E. from either Stream

**Elective Suggestion:**
- **ECS01S** (3 F.C.E.)

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**SPECIALIST PROGRAMME IN ENVIRONMENTAL EARTH SCIENCES**

This programme has been designed to provide students with a broad background in the basic principles and applications of Environmental Science. It is intended for students with a good background in the natural sciences and who wish to pursue a career in environmental or related fields.

**Elective Requirements:**
- 6.5 F.C.E. from both Streams
- 2 F.C.E. from either Stream

**Elective Suggestion:**
- **ECS01S** (3 F.C.E.)
EESB045 Life on Earth: Introductory Biology for Environmental Scientists
Telephone ID #: 36310453
The fundamental principles of biology from an environmental perspective.
Topics to be studied include: the molecular basis of life, basic cell structure and physiology, diversity of the various kingdoms, basic genetics and principles of evolution and ecology. The influence of environmental factors on biological systems (physiological, genetic etc.) will also be explored.
Two one-hour lectures and one three-hour laboratory or tutorial each week.
Exclusion: Students with prior credit for BOYA10Y (BOYA30Y) may not take EESB045 for credit.
Session: Winter Day
R. Falsterbo
EESB065 Environmental Hazards
Telephone ID #: 36310553
An investigation of the geological background and possible solutions to major hazards in the environment.
Environmental hazards to be studied include: landslides, erosion, earthquakes, volcanic eruptions, asteroid impacts, flooding, glaciation, future climate change, subsidence, and the disposal of toxic wastes. Of interest to a wide range of students in the life, social, and physical sciences; an opportunity for the non-specialist to understand headline making geological events of topical interest.
No prior knowledge of the Earth Sciences is required.
Exclusion: GLG103 (GLG105)
Session: Winter Evening
A. Mokrjaz
EESB066 Introduction to Planet Earth
Telephone ID #: 36310633
The composition, structure and origin of the Earth and the physical and biological processes that operate on it, the history of the Earth as revealed in the rock record.
The flows of energy and mass through natural systems, and the impact of human activity on system processes, with particular reference to land-use change, soil degradation and atmospheric pollutants.
Exclusion: (EES200), (EES201), GGRA05, GGRA10, GLG110, 140, 141, JPS130
Session: Winter Day
N. Blick / T. Price
EESB067 Principles of Sedimentology and Stratigraphy
Telephone ID #: 36320133
An analysis of the wide range of sedimentary environments found on planet earth and their stratigraphic record.
Sedimentary and related rocks provide a record of environmental change over the last 3500 million years. Techniques for describing and dating sedimentary strata will be demonstrated during local field excursions. Of interest to students in life and physical sciences.
Exclusion: GLG200 (GLG202)
Prerequisite: EESA046 (EESA043)
Session: Winter Day
N. Eyre
EESB068 Principles of Geomorphology
Telephone ID #: 36330223
The physical and chemical processes responsible for the development of relief at the surface of the earth and the processes of transportation, deposition and development of mass by rivers, wind, glaciers, water waves, gravitational stresses, etc., which control the evolution of surface morphology.
Field excursions and laboratory exercises will allow students to apply theory to natural systems and to understand the dynamics of one natural-modified geomorphic system.
Two hours of lectures per week and two hours of practical work every second week.
Exclusion: (GGR193)
Prerequisite: EESA046 (EESA043)
Session: Winter Day
B. Greenwood
EESB069 Principles of Climatology
Telephone ID #: 36330233
An overview of the physical and dynamic nature of meteorology, climatology and related aspects of oceanography.
Major topics include: atmospheric composition, nature of atmospheric radiation, the ocean hole, atmospheric moisture on cloud development, atmospheric motion including air masses, front formation and upper air circulation, weather forecasting, ocean circulation, climate classification, climate change theory and global warming.
Topics will include the accessing and analysis of meteorological and climatic data through the Internet.
Two lectures and two hours of practical work per week.
Exclusion: (GGR127), (GGR139)
Prerequisite: Any A-level course in Environmental Science or IDEB025
Session: Winter Day
K. Bolton / Y. Tinner / R. Bryan
EESB086 Biotechnology - Environmental Implications
Telephone ID #: 36320953
An examination of the environmental implications of the application of recent advances of biotechnology.
Topics to be studied include: fundamentals of biotechnological techniques, current applications (e.g., the bio-remediation of contaminated water, soil and air), the mining industry, bio-control agents in agriculture, forestry and public health arenas. Ecological concerns over the use of genetically engineered organisms will be examined, and the techniques used to monitor environmental effects will be discussed.
Prerequisite: EESA046 or BOYA30Y
Two hours of lectures and one hour laboratory per week.
Session: Winter Day
R. Falsterbo
EEB160 Introduction to Environmental Geophysics
Telephone ID #: 36321033
A study of the current methodology and instrumentation used for environmental investigations.
In this course, methods of exploring the subsurface in engineering and environmental studies. Various geophysical techniques in geological, civil and environmental engineering which are increasingly used to map and investigate the impact of environmental conditions on urban development and vice-versa are also examined. Field trips will be taken.
Exclusion: (EES120)
Prerequisite: EESA046 (EESA045) or EESA055 or permission of instructor.
Two hours of lectures and two hours of practical work per week.
Session: Winter Day
A. Mohajer
EESB115 Minerals
Telephone ID #: 36321153
Basic concepts in minerals are covered, including the physical and chemical properties of minerals, classification, crystal symmetry and structures, geology, ore deposits, mineral assembly, characteristics of the main rock types; industrial and environmental uses.
Laboratory exercises will focus on identification of minerals in hand specimen and include a study on the recognition and geologic significance of...
minerals in sediments of the Scarborough Bluffs as well as a visit to the mineral and gem displays of the Royal Ontario Museum.

Two hours of lectures and two hours of practical work per week.
Exclusion: EES1907
Prequisite: CHMA207Y and one of EES4015, EES406F (EES4019)
Session: Winter Day
J. Westgate

EES19125 Igneous and Metamorphic Rocks
Telephone ID #: 36321253
An introduction to the chemistry, mineralogy, textures, classification and physical properties of igneous and metamorphic rocks and the processes involved in their formation; the tectonic basis for their distribution.
Laboratory exercises will emphasize examination and identification of rocks in hand specimen and field settings and will involve a basic introduction to the petrographic microscope and thin sections.
Two hours of lectures and two hours of practical work per week.
Prequisite: EES1115
Session: Winter Day
J. Westgate

EES2135 Deformation of Earth Materials
Telephone ID #: 36321353
In this course we examine how local, regional and plate tectonic stresses cause materials to deform. Of fundamental interest, sometimes with devastating consequences.
We begin with the principles of geomechanics and show how geotechnical factors influence rock behaviour and control important earth processes such as folding, faulting and mass wasting. Subsequently, we show how geological structures observed at field sites in Ontario, and interpreted from geological maps, can reveal the history of earth movements in an area, thereby providing insight as to how earth materials might behave in the future under changing stresses.
Two hours of lectures per week and three hours of practical work on alternate weeks.
Prequisite: EES1005 or EES106F (EES1025)
Session: Winter Day
K. Howard / N. Eyre / J. Westgate

EES2105 Environmental Economics and Law
Telephone ID #: 36330153
A study of the application of economic analysis to problems of environmental change and natural resource use.
This course will cover market processes in situations where externalities in production and consumption are present and the application of benefit-cost analysis to environmental problems. A brief introduction to issues in environmental law, and the statutory and regulatory framework for environmental management in Ontario.
Prequisite: Permission of Instructor
Session: Winter Day
J. Fisher / M. Truitt

EES2005 Remote Sensing & Geographic Information Systems
Telephone ID #: 36330253
A study of the fundamentals of GIS and remote sensing: including spatial data types, data capture, data input and output formats, georeferencing and coordinate systems, topology, spatial analysis techniques, data output and map production.
The applications of GIS technology as a tool in the management of environmental problems will also be studied. Several case studies and databases will be examined to demonstrate GIS applications in both regional (e.g. waste management in the Metro Toronto region, acid mine drainage in Northern Ontario, bio-invasion and fate of toxins in the Great Lakes Basin, regional shoreline management and flood risk assessment in Ontario) and global environmental concerns (e.g. deforestation in equatorial regions, global climate warming, world population growth). Students will gain extensive hands-on experience using a number of GIS software packages (ESRI's SPANS, Topo Analyst System, ArcInfo) and hardware devices (workstations, digitizers, plotters) in the GIS teaching lab.
Two hours of lectures and two hours of practical work per week.
Prequisite: EES1005 & 1.5 F.C.E.'s in B- level EES courses.
Season: Winter Day
M. Dougherty

EES204F Biodiversity and Biogeography
Telephone ID #: 36330403
Theoretical and practical aspects of the diversity of animal forms and function, together with examination of the distribution patterns of representative taxa.
This course will familiarize students with the diversity of animal life and how this is organized for scientific study.
Much of the course will be concerned with invertebrate animals, as it is among their phyla that the vast majority of the structural and functional diversity of organisms lies. Information on important animal groups and their evolution will be set in the context of past and present global distribution patterns. Coverage will begin with consideration of the evolution of diversity in a functional context. Subsequent topics will include the major biomes (marine and terrestrial), continental drift, dispersal, endemism, concepts of abundance and rarity, comparison of the biota of continents and islands, and the fundamental influence of climate. Important biological processes to be studied will include adaptation, speciation, colonization and extinction. The course will conclude with discussion of the invasive role of mankind in shaping modern biogeography. One two-hour lecture/discussion groups, and one three-hour laboratory per week.
Exclusion: BIOC229
Prequisites: BIOC101Y (BIOC101Y) or EES1005 & 0.5 F.C.E. B- or C- level in Biological or Environmental Sciences.
Session: Winter Day
D.D. Williams

EES2055 Coastal Geomorphology
Telephone ID #: 36330553
The basic hydrodynamics and sediment transport processes which control the morphological form of coastal systems, and the dynamic behaviour (e.g. erosion, accretion, etc.) of coastal systems and the current problems arising from the use and share 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 Scarborough and Toronto waterfronts) through field
Exclusions: essays and projects.
One two-hour lecture per week and one three-hour practical/laboratory every other week.
Exclusion: 0039C926
Prequisite: EES205F
Session: Winter Day
B. Greenwood

EES2056 Quantitative Environments
Telephone ID #: 36330663
A study of environmental change in the main forest and frontier regions of the world during the last three million years in both terrestrial and aquatic environments.
The evidence for, and effects of, environmental change in these regions will constitute the main area of study in this course. Also to be explored is the relevance of Quaternary studies to present and future states of the environment, with reference to biogeography and environmental impact assessment. Laboratories will include biological methods of paleoenvironmental description (e.g. invertebrate fossil processing), and the graphical and statistical tools used in data interpretation (e.g. pollen diagrams, marine oxygen stable isotope records, transfer functions, etc.).
Prequisites: EES1005 or BIOC101Y (BIOC101Y) or permission of instructor.
One two-hour lecture plus one three-hour laboratory per week.
Session: Winter Day
N. A. Green

EES207F Groundwater
Telephone ID #: 36330733
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 the responsible management of groundwater resource management and protection. During the course, special emphasis is placed on the practical methods of resource exploration and assessment; examples of the approach are given for aquifers under environmental stress in southern Ontario, the U.S. and Africa.
Prequisite: EES1005 and 1.5 F.C.E. in B-level EES courses.
Session: Winter Evening
K. Howard
EESC005 Subsurface Exploration Techniques: Drilling
Telephone ID: 36330813
A study of drilling techniques necessary for geotechnical, hydrogeological and mineral exploration.
Field demonstrations, combined with classroom instruction and laboratory practicals in well-worn, blast holes, geotechnical, exploration and rotary drilling. Applications, limitations, costs, advantages and disadvantages will be stressed. Emphasis will be placed on new developments in drilling equipment, overhand drilling and its use testing in Ossenberry sediments, design and installation of hydrogeological monitoring and production wells.
Prerequisite: EGC215F (GLGO058) & (GLGO098) EGC770F or with permission of instructor.
Session: Winter Day
R. Fyfe

EESC115 Tropical Soil Management and International Development
Telephone ID: 36331153
A study of the salient characteristics of tropical soils and the processes which lead to soil degradation.
Soil management practices and potential conservation techniques and strategies will be examined in the context of tropical soil properties and land use patterns. Nutrient cycling and sustainable cultivation, vegetation and mechanical cultivation to soil conservation, soils and agroforestry, soil and woodland areas and semi-arid regions will be analyzed. One two-hour lecture per week and one two-hour laboratory every second week. Laboratory practicals will be carried out in the Soil Erosion Laboratory.
Limited enrolment: 40
Exclusion: EGC1125 (GLGC40)
Prerequisite: EGC810F (GLGO85)
R. Braun, V. Errea

EESC125F Glacial and Periglacial Geology
Telephone ID: 36331253
This course will examine glacial processes and stratigraphies resulting from large ice sheets which have covered all but 3% of the Canadian landscape in the last 3 million years.
Field and project work will focus on the glacial record of Ontario, including environmental problems of the Greater Toronto Area. A thorough understanding of glacial processes and stratigraphies is essential for environmental geology, hydrogeology, mineral exploration and geo-engineering. Field trips will be demonstrated on field trips.
Exclusion: EGC120F, EGC120F
Prerequisite: EGC810F
Session: Winter Day
N. Eyles

EESC115F Environmental Impact Assessment
Telephone ID: 36331253
A study 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 land use will be used.
Two hours of lecture and one tutorial hour per week.
Exclusion: GGR205, IN2201, GGR410
Prerequisite: 5 FCEs in EES courses, or permission of instructor.
Session: Winter Day
D. Patock

EESC145F Physical Oceanography and Limnology
Telephone ID: 36331453
A study of the dynamical aspects of oceanography and limnology.
Two-thirds of the course will emphasize ocean circulation and composition. Topics include: basic laws and forces governing the ocean, the earth's rotation, the geostrophic approximation, ocean circulation and tides. The last third of the course emphasizes limnology. Topics include: classification and origin of lakes, temperature structure, seasonal circulation, heat budgets, Langmuir circulation and turbulence.
Prerequisite: MAT210Y & PHY110F or PHY110Y & EGR800
Two hours lecture and one hour of practical work per week.
Session: Winter Day
W. Greenough

EESC155 Research Seminar in Environmental Science
Telephone ID: 36331553
Concepts and methods developed in Environmental Science will be applied to practical environmental problems, within the framework of individual or group research; a research paper or dissertation will be produced. The course is also designed to ensure interaction between students from diverse streams of environmental science through participation in joint seminars, which will also involve environmental practitioners from the community at large.
Prerequisite: Permission of Instructor
Session: Winter Day
A. Kenny

EESC195F Field Camp I
Designed to familiarize the student with field work in the Earth Sciences; many environmental problems can be only assessed by direct fieldwork and other data in the field.
This course is designed for students in the Environmental Earth Sciences, Stream "C", 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 EESC197.
The camp will be held in alternate years in Costa Rica (May) or the Rocky Mountains (September).
Prerequisite: EGC800F, EGC815F and permission of the instructors.
Session: Winter Day
N. Eyles / K. Howard

EESC175F Introductory Agroforestry
Telephone ID: 36331753
The roles that trees and forests play in agricultural land-use systems primarily in the third world. Agroforestry is defined as the deliberate introduction of trees and other perennial plants into farming systems. The role of plants in agriculture will be reviewed and the primary focus will be on agroforestry systems.
This course will deal primarily with 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 potential to improve the temperate zone will be discussed.
Two hours of lecture and two hours of tutorials per week.
Exclusion: FOR405
Prerequisite: EEC800F and either 2 additional FCEs in EES or permission of instructor.
Session: Winter Day
W. Greenough

EESC200F Contaminant Hydrogeology
Telephone ID: 36342251
Groundwater represents an important environmental pathway for the transport of contaminants.
This course examines the mechanisms by which contaminants migrate in the subsurface. It considers a wide range of urban and industrial pollutants and considers physical, chemical and biological aspects of contaminant flow. Other topics include aquifer impact assessment, landfill design and the use of major ions, minor ions and environmental isotopes, hydrochemistry for diagnostic characterization of groundwater and contaminant sources.
Prerequisite: CIB2555 or CIB255F
Session: Winter Evening
K. Howard

EESC204F Sedimentary Systems
Telephone ID: 36340453
Environmental degradation is frequently related to the transport of sedimentary materials, either in association with surface erosion and sediment deposition or with reactivation, transport and deposition of contaminants. The physical principles of sediment transport, the resulting physical properties of alluvial sedimentary bodies and the environmental significance are studied by examining the dynamics of a wide range of modern sediments.
Two hours of lectures per week, plus seminars and field/laboratory work.
Exclusion: ENV204F, EGO404
Prerequisite: EGC810F (GLGO85)
Session: Winter Day
B. Greenough

EESC206F Climate Change
Telephone ID: 36340655
Climate change is studied from a scientific perspective by assessing the climate record and theoretical frameworks explaining the climate variability, forcing, climate change, chaos theory, and Earth hypotheses are critically assessed. The second approach to climate change is to examine the simulation of climate and climate change, particularly anthropogenically induced change. Potential impacts of global warming are explored.
Two hours of lectures and one hour of practical work per week.
Exclusion: (GGR1006)
Prerequisite: EGC810F (GLGO85)
Session: Winter Day
W. Greenough
EES201H Field Camp II
This field camp is designed to familiarize the student with several geological settings and modern settings. This course is offered for students in the Environmental Science, Earth Sciences "C", and students in other environmental areas. 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 EES201H.

The camp is held in alternate years in Costa Rica (May) or the Rocky Mountains (September). Limited size. 15
Prerequisites: EES101H and permission of the instructor.
Times: Winter Day
K. Howard (I.M. Eyles)

EES201H/DSY0 Research Project in Environmental Science
Students will gain experience in the design, implementation, and reporting of a substance research project involving laboratory and/or fieldwork. Existing faculty research allows a broad range of possible topics. The course should be undertaken after the end of the 3rd Year, subject to faculty availability. Faculty permission and supervision is required; open only to those students who have either completed or are undertaking specialist courses in the area of intended study. Students having a B+ or higher standing may be eligible for summer financial support for projects.
Examinations: GLG470, GLG471; GORD001, GORD002, GORD003
Times: Winter Day
Coordinator: B. Goodwin

EES210 Hydrology: Physical Processes and Models
Telephone ID: 3641135
This course will cover the physical processes of infiltration and soil water movement as described in detail. The application of physically based modeling to solve network processes; the difficulties of using physically based models in general for the prediction of natural system behavior. Two hours of lectures and one hour of practical work per week.
Prerequisites: EES204P (GGR2C8) or GGB059
Examination: EES221P (GGR2C8)
Session: Winter Day
T. Price

EES214 Contaminants in Terrestrial Environments
Telephone ID: 36341453
A study of the chemical interactions of natural waters with soils and sediments. Students will gain an understanding of the chemical factors influencing the fate of contaminants in the terrestrial environment. Emphasis will be placed on the chemical composition of natural waters and sediments, as well as the chemical properties of soil and sediments. Other topics covered will include: precipitation/dissolution reactions, soil redox reactions, clay mineralogy, the nature of organic matter in soils and sediments, and the behavior of organic and inorganic contaminants in solution and the rate of these contaminants by mineral and organic particles.
Three hours of lecture each week and one hour tutorial.
Prerequisites: CHIM225F or CMIC1F
Examinations: CHIM225F
Times: Winter Day
K. Bolton

EES205F Cleaning up our Mess: Remediation of Terrestrial and Aquatic Environments
Telephone ID: 3654153
A study of the ways in which hazardous organic and inorganic materials can be removed or attenuated in natural systems. The course will present the theory behind the various technologies, an emphasis on bioremediation techniques, and will examine their success rates in practice. The course will include the unique challenges associated with the remediation of surface and ground water environments, soils, marine systems, and contaminated sediments.
Two hours lectures, one hour tutorial per week.
Prerequisites: BOYA00 or EES204 & EES205F & EIM255
K. Bolton / F.R. Fathobre

Mathematics

Course/Not Offered 1997/98

EES205F Theoretical Geomorphology
Prerequisites: EES205F (GGR2C9) & EES205S (GGR2C6) or GGR2C7Y

Mathematics (B.Sc.)

Faculty List
E.W. Elders, Ph.D. (Hamburg), Professor Emeritus
R.O. Bucholz, Ph.D. (Hannover), Professor
J. Ferland-Jamie, B.Sc., M.A. (Waterloo), Ph.D. (Pens. State), F.R.S.C., Professor
E. Mendeleev, B.Sc., M.Sc. (Moscow), Ph.D. (McGill), Professor
P. Sollas, B.Sc., M.Sc., Ph.D. (Princeton), Professor
R. W. Sharpes, M.Sc., Ph.D. (Yale), Professor
J. Schert, D.PhiL., (Oxford), Associate Professor
S. Chaub, B.A. (Delhi), M.Sc. (McMaster), Senior Tutor
E. Moore, M.A. (Memorial), Ph.D., Senior Tutor
H.S. Rosenbank, B.Sc. (C.U.N.Y.), Senior Tutor
S. C. Yip, M.A. (Toronto), Senior Tutor
Discipline Representative: E. Mendeleev

Our Mathematics began in the ancient Mesopotamian civilisations. The Babylonians already knew much of the mathematics taught traditionally in our schools. Their algebra and geometry was based in terms of areas and fields and money. Since the Renaissance, mathematics has come from problems in physics and astronomy; for example, calculus arose from problems in mechanics. In turn mathematics has provided the theoretical framework and tools in the Physical Sciences. In the 19th century some parts of mathematics appeared to develop away from their origins in the physical world. To the great surprise of many scientists and mathematicians, some of the "pure" mathematics has turned out to be essential in many aspects of 20th century science. Differential geometry provides the language for general relativity and cosmology, and Hilbert space theory and group representations are the tools for quantum mechanics. Similarly, graph theory, combinatorics and number theory play a major role in computer science.

Please refer to the Physical Sciences Scarborough preeminent on page 115 for a list of the programs offered.

The Faculty of 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.

First Year:
CSCA58F Introduction to Computer Science
MATA42Y Linear Algebra
MATA52Y Calculus
PHYS100 Principles of Classical Physics
PHYS12Y Principles of Modern Physics
or
PHYS140 Dynamics of Classical Systems
PHYS142 Principles of Modern Physics

Second Year:
MAT130F Geometry I
or
MAT130Y Introduction to Number Theory
MAT130F Algebra I
MAT130S Algebra II
MAT134F Techniques of the Calculus of Several Variables I
MAT134S Techniques of the Calculus of Several Variables II
MAT135F Introduction to Analysis
STAB4F Statistics
### Third Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MATC49P</td>
<td>Galois Theory</td>
</tr>
<tr>
<td>MATC51F</td>
<td>Differential Equations I</td>
</tr>
<tr>
<td>MATC55S</td>
<td>Complex Analysis I</td>
</tr>
<tr>
<td>MATC55B</td>
<td>Complex Analysis II</td>
</tr>
<tr>
<td>STA47F</td>
<td>Introduction to Probability Theory and Mathematical Statistics</td>
</tr>
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### Fourth Year

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MATC56S</td>
<td>Differential Equations II</td>
</tr>
<tr>
<td>MATC60P</td>
<td>Complex Analysis II</td>
</tr>
<tr>
<td>STA47S</td>
<td>Introduction to Probability Theory and Mathematical Statistics</td>
</tr>
<tr>
<td>[ICSC61F]</td>
<td>Chaos, Fractals and Complexity</td>
</tr>
<tr>
<td>or MATC61S</td>
<td>Discrete Dynamical Systems</td>
</tr>
<tr>
<td>ASTC50S**</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CSCI55F</td>
<td>Numerical Approximation, Integration and Ordinary Differential Equations</td>
</tr>
<tr>
<td>CSCI55S</td>
<td>Introduction to Computer Science</td>
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<tr>
<td>CSCI55E</td>
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<tr>
<td>CSCI55F</td>
<td>Principles of Classical Physics</td>
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<td>CSCI55F</td>
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### Mathematical Sciences Stream

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<tr>
<th>First Year</th>
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<tbody>
<tr>
<td>ASTA12F</td>
<td>Introduction to Astronomy</td>
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<tr>
<td>MATA20Y</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATC37S</td>
<td>Introduction to Scientific Computing</td>
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<tr>
<td>or CSCI55F</td>
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<tr>
<td>ASTB40F</td>
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</tr>
<tr>
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</tr>
<tr>
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<td>Techniques of the Calculus of Several Variables I</td>
</tr>
<tr>
<td>MATB42F</td>
<td>Techniques of the Calculus of Several Variables II</td>
</tr>
<tr>
<td>PHYB21E</td>
<td>Classical and Quantum Mechanics</td>
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<tr>
<td>STA42F</td>
<td>Statistical Mechanics and Thermodynamics</td>
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### Fourth Year

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PSCD01F</td>
<td>The Physical Sciences in Contemporary Society</td>
</tr>
<tr>
<td>PSCD02S</td>
<td>Current Questions in Mathematics and Science</td>
</tr>
<tr>
<td>PSCD03S</td>
<td>Computers in Contemporary Society</td>
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### Physicists' Program in Physical and Mathematical Sciences

### Specialist Programme in Mathematics and Statistics

### Second Year

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<td>PSCD02S</td>
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<td>ASTB50F</td>
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Major Programme in Mathematical Sciences

Students must choose one of the following options:

Mathematics:
- Supervisors: H.S. Rosenthal (287-7268)
  - First Year:
    - MAT407F Introduction to Computer Science
    - MAT404Y Linear Algebra
    - MAT425Y Calculus

Other Years:
- CSC819F File Structures and Data Management
- CSC853 Computer Organization
- CSC870S Fundamental Data Structures and Techniques
- MAT814F Techniques of the Calculus of Several Variables I
- MAT824S Techniques of the Calculus of Several Variables II

Statistics:
- Supervisors: Susha Jain
  - First Year:
    - MAT875F Real Analysis
    - MAT851Y Linear Algebra
    - MAT825Y Calculus

Other Years:
- CSC870S Fundamental Data Structures and Techniques
- MAT814F Techniques of the Calculus of Several Variables I
- MAT824S Techniques of the Calculus of Several Variables II
- STA822F Introduction to Probability Theory and Mathematical Statistics

Computer Science:
- Supervisor: G. Cupit (287-7253)
  - First Year:
    - CSC819F Introduction to Computer Science
    - CSC853 Computer Organization
    - CSC870S Fundamental Data Structures and Techniques

Other Years:
- CSC819F File Structures and Data Management
- CSC853 Computer Organization
- CSC870S Fundamental Data Structures and Techniques
- MAT814F Techniques of the Calculus of Several Variables I
- MAT824S Techniques of the Calculus of Several Variables II
- STA822F Introduction to Probability Theory and Mathematical Statistics

Physical Sciences - Mathematics
will equip the student for most sciences and for further work in mathematics. Exclusions: MAT245, MAT271, MAT310, 133, 134, 135, 137, 139, 149. Prerequisites: Grade 12U Calculus or OAC Calculus and OAC and one of OAC Algebra and Geometry or OAC Finite Mathematics. Session: Winter Day, Summer Evening MAT245 Calculus A First term of MAT245. Students in academic difficulty in MAT245 may withdraw from MAT245 and enroll in MAT2445 in the Spring term. These students are informed of this option by the end of the Fall term. Classes begin in the first week of the Spring term; late enrolment is not permitted. MAT2445 together with MAT245F is equivalent for program and prerequisite purposes to MAT245Y. Students not enrolled in MAT245Y in the Fall term will not be allowed to enroll in MAT2445, with the following exception. A student who has successfully completed PHY101 and wishes to enroll in PHY215, but is not enrolled in PHY101, may enroll in MAT2445 with the consent of the instructor. Exclusion: MAT245Y Session: Winter Day MAT245F Calculus II Second year course of MAT240Y; the final examination includes topics covered in MAT245Y. Exclusions: MAT2445, MAT210, 133, 134, 135, 137, 139, 149. Prerequisites: MAT245Y and withdrawal from MAT245Y after midterm, with a mark of at least 20% in the midterm. Exclusion: MAT245Y Session: Summer Evening MAT245Y Introduction to Optimization Telephone ID: 20423133 Areas to be covered include: \( R^2 \) as a model space in economics, constraints, functions of one and several variables graphs. Derivatives, partial derivatives, differentials, roles for differentiation in several variables including chain rule, higher derivatives. Exponential and logarithmic, geometric series, discrete and continuous interest. One variable optimization: relative and absolute extrema, graph sketching, word problems. Matrix algebra, linear equations. Optimization in several variables. Class size maps. Lagrange multipliers. Linear programming. This course is illustrated throughout by examples drawn from Economics. Students must have an approved calculator with memory and the exponential and logarithmic functions. Exclusion: MAT245F (MAT247Y), MAT241, MAT210, 133, 134, 135, 139, 149. Prerequisite: OAC Calculus & OAC Algebra and Geometry or OAC Finite Mathematics. Concurrent: MATH101FY. Session: Winter Day NOTE: This course is intended for certain students in some Management and/or Econometrics Program. It does not satisfy the requirements for any Program in the Physical Sciences, and it may not be used as a prerequisite for any further Mathematics course. Students should consult with the Faculty in Management and Economics or with Counselling Services to make sure that MAT245Y is appropriate to their needs. MATH250 Geometry I Telephone ID: 20423033 A 3rd year course of geometry: Euclidean geometry: lengths, angles, volumes, isometries, symmetry groups. Dr. Van's theorem and the platonic solids. Circle groups of symmetries: friezes and patterns, lattices, tessellations, crystallography. This course is intended as an introduction to geometry. It emphasizes the interplay between group theory and the plane. It should be of interest to students in chemistry, computer science, and architecture. Exclusion: MAT255Y, MAT250Y, MAT250Y, 234, 235, 237, 257, 257. Prerequisite: MAT245Y (MAT247Y) Session: Winter Day MAT251F Algebra I Telephone ID: 20432313 A focus on groups: definitions and elementary examples, symmetry groups, matrix groups, permutation groups; equivalence relations, classes, congruence classes. A study of Theorems of Lagrange, Cauchy, Class formula and Sylow theorems. Finite abelian groups: modular arithmetic, Euclidean algorithm, hom. and classification. Exclusion: (MAT447Y, MAT445Y), (MAT247, 350), 350. Prerequisite: MAT245Y Session: Winter Day MAT253B Algebra II Telephone ID: 20423225 A study of rings: ideals, quotient rings, homomorphisms, domains and their fields of fractions. Euclidean domains and their arithmetic. Polynomial rings, roots of polynomials, extension fields. Structure theorem for modules over a principal ideal domain, with application to finitely generated abelian groups and normal forms of matrices. Exclusion: (MAT464Y, MAT464Y), MAT241Y Session: Winter Day MAT254F Technique of the Calculus of Several Variables I Telephone ID: 20423433 A study of Vector algebra in \( R^2 \) and planes in \( R^3 \), complex numbers, matrices, determinants and linear equations, functions of several variables, partial derivatives, gradient, tangent place. Jacobian matrix and chain rule. Taylor series, extreme problems, extremal problems with constraints and Lagrange multipliers, multiple integrals, spherical and cylindrical coordinates, law of transformation of integrals. Exclusion: MAT254Y, MAT250Y Session: Winter Day MAT254Y Technique of the Calculus of Several Variables II Telephone ID: 20424233 A study of Vector fields in \( R^3 \). Divergence and curl, curves, parametric representation of curves, path and line integrals, surfaces, parametric representations of surfaces, surface integrals. Green's, Gauss', and Stoker's theorems will also be covered. An introduction to differential forms, total derivative. Exclusion: MAT250Y, 234, 235, 237, 257, 257. Prerequisite: MAT254F Session: Winter Day MAT435 Introduction to Analysis Telephone ID: 20424355 This course is designed for students whose interest in mathematics has been stimulated by their experience in A28 and A30, and who wish to acquire the analytic techniques which are essential for more advanced work. There will be a fundamental emphasis on rigorous analytic proofs. Students will study the least upper bound principle for \( R \), limits in \( R \) and \( R^2 \), continuity functions in one and two variables, space filling curves and nowhere differentiable functions, existence of extrema on closed and bounded sets, mean value theorems and the fundamental theorems of the calculus, the Kerala integral. Exclusion: MAT254F, MAT246. Prerequisite: MAT254Y or MAT247Y Session: Winter Day MAT450 Introduction to Number Theory Telephone ID: 20420705 A study of some properties of integers, prime numbers, congruences, quadratic residues, diophantine equations, rational approximation. Exclusion: MAT315 Prerequisite: MAT445Y (MAT445Y) Session: Winter Day MAT451 Discrete Dynamical Systems Telephone ID: 20424313 Areas covered include: metric space, dynamics on the real line, fixed points, periodic points, attractors, repellers, Sarkovski's theorem parameterized families of maps and bifurcations, period doubling, dynamics of the logistic map, symbolic dynamics, chaos, topological equivalence of the logistic map and the shift map, Newton's method, dynamics on the complex plane, iterations of singular functions, Julia sets, Mandelbrot set. Prerequisite: MAT4345Y Prerequisite: MAT3065P Session: Winter Day MAT451F Introduction to Number Theory Telephone ID: 20432313 A brief survey of the field of discrete mathematics with emphasis on problem solving. Elementary counting, generating functions and difference equations, permutations with restriction.
Polya counting, graphs, network flow problems, balanced incomplete block designs, incidence structures. Prerequisite: MAT344F/S (or CSC338) & at least one other B-level course in mathematics or computer science. Offered: 1997/98
Session: Winter Day

MAT460F/G Galois Theory
Telephone ID: 20434933
Attention will be given to: fields of quotients, residue fields, finite fields, algebraic and transcendental field extensions, primitive elements, Galois extensions, review of group theory, the fundamental theorem of Galois theory, calculations and examples, the classical problems of angle trisection and construction of regular polygons. Exclusion: (MAT300), 447
Prerequisite: MATB312F/S or (MATB409F/S)
Session: Winter Day

MAT412F Differential Equations I
Telephone ID: 20435133
A study of first order equations: linear, separable, homogeneous; applications: brachistochrone problem, Riccati equation, Euler's equation; second order linear equations: applications to classical mechanics, elliptic functions, applications to chemical problems, series solutions, Frobenius' theorem, systems of equations. Exclusion: APMA256, APMA331, MAT244, 287
Prerequisite: MATB404Y, MATA26Y Corequisite: MATB41F/S
Session: Winter Day

MAT456F/D Differential Equations II
Telephone ID: 20435053
This course will cover existence theorems, qualitative theory, applications, bifurcation theory, heat and wave equations, separation of variables, Fourier series, Laplace transform. Sturmliouville problem, boundary value problems, numerical solutions, differentially equations. Exclusion: APMA256, APMA331, APMA456, MAT244, MAT435
Prerequisite: MATCH195F/S (MATB319F/S)
Offered: 1997/98
Session: Winter Day

MATD20H Readings in Mathematics II
Independent study under the direction of a faculty member. Prerequisite: A GPA of 2.5 or more and consent of instructor.

Courses Not Offered in 1997/98

MATC205Y Geometry II
Exclusion: (MATB22Y)
Prerequisite: MATB307F/S

MATC22F Graph Theory and
Applications
Exclusion: (MCC232F/S)
Prerequisite: (MATB31F/S or CSC338) & at least one other B-level course in Mathematics or Computer Science

MATC35Y Real Analysis
Exclusion: (MATC50F/S, (MATC55F/S, MAT338, 339)
Prerequisite: MATB32F/S (MAT340F/S or MAT412F/S & MATB427F/S & MATB409F/S)

MATC345Y Differential Geometry I
Exclusion: MAT35Y
Prerequisite: MATA40Y (MATA457F/S) or MATB427F/S
Corequisite: MATC351F/S

MATC370Y Topics in Analysis
Excluded: MATC35Y, MATC357Y
Prerequisite: MATB41F/S

MATC365Y Complex Analysis I
Exclusion: MAT334, 357
Prerequisite: MATB429F/S

MATC65Y Complex Analysis II
Prerequisite: MATB405Y

Physical Sciences
Scarbrough (B.Sc.)

Courses in the Physical Sciences discipline are designed to be taken by all students within the Division. They are taught by Physical Sciences Faculty. Every Specialist Programme requires courses from this discipline.

PSC210F Chaos, Fractals and Complexity
Telephone ID: 31622033
A general interest course providing an overview of topics in the science of nonlinear systems with applications to natural systems such as the dripping tap, weather prediction, hydrodynamics, cardiopulmonary, stability of the solar system, population biology, chemical reactions, mechanical engineering and electrical engineering. Topics include the following: discrete nonlinear systems, continuous nonlinear systems, and chaos. Natural fractals, Fractal dimensions. Mathematical fractals. Cellular automata. Complexity. Prerequisite: MATA26Y or MATA28Y; elementary knowledge of a programming language such as C, FORTRAN, Basic or Turing.
Session: Winter Day

C. Dyer / S. Frazer / A. Jacob

PSCC019 Physical Principles of Modern Technology
Telephone ID: 33630153
The principles of modern technology are rooted in the physical sciences. The electrical properties of semiconductor materials are the foundation of the burgeoning fields of microelectronics and digital computing. The modulation, transmission, and detection of electromagnetic waves are at the heart of the contemporary revolution in communications technology. The physical principles of thermodynamics set valuable constraints on the generation and interchange of energy in its various forms. The goals of this course are to present the physical principles underlying digital, communications, and energy technology, and to examine critically the applications of these technologies in modern society. Prerequisite: PHYS315, MAT344F, MATB425 Corequisite: PHYB225, PHYB23H
Session: Winter Day

PSCC01H Physical Sciences Project
An independent study course to cover an experimental project or series of projects (including computational projects) in the Physical Sciences. Each project would be supervised by a member of the physical sciences faculty who, in consultation with the laboratory supervisor, would assess the laboratory performance of the student as well as the written report. This course is intended to provide opportunities for experimental work beyond those available in the formally scheduled laboratory courses, for students registered in a Physical Sciences, Scarborough Specialist Programme, who have completed the requirements of the first three years of the programme with a GPA of at least 2.5.
Prerequisite: Permission of the Programme Supervisor, who shall consult with prepared TPA supervising faculty.
Session: Winter Day, Summer Day

PSCC01F The Physical Sciences In Contemporary Society
Telephone ID: 33640135
Current issues involving physical science in modern society. Topics include: complex natural, scientific method; interconnection between theory, concepts and experimental data; characterization of probability, mathematical and pseudo-science; how scientific research is organized and funded in Canada, role of communication and publishing; popularization of scientific method; reasons for current anti-science mood; end of the cold war era of science, insufficiency of reductionism; trends in modern science. Prerequisite: Completion of at least one half of the full-time course requirements of the required courses in any one of the Physical Sciences Scarborough Programmes.
Corequisite: Continued participation in one of the Physical Sciences Scarborough Programmes.
Session: Winter Day
Physics (B.Ec.)

Faculty List
H.C. Corben, M.A., M.Sc. (Melbourne), Ph.D. (Canter), Professor Emeritus
E. Fawcett, M.A., Ph.D. (Melbourne), Professor Emeritus
A. Griffin, M.Sc. (British Columbia), Ph.D. (Orontes), Professor
A. Jacobs, B.A., B.Sc. (Washington), Ph.D. (Illinois), Professor
J.D. King, B.A., Ph.D. (Saskatchewan), Professor
M.G. Lee, M.A., Ph.D. (Canter), Professor
P.G. O'Connell, B.Sc., Ph.D. (Glasgow), Professor
J.M. Perr, B.A.Sc., M.A.Sc. (Toronto), Ph.D. (Canter), Professor
S. Quack, M.Sc., Ph.D. (Washington), Senior Tutor
G. Leitecz, B.Sc., M.Sc. (Toronto), Senior Tutor

Discipline Representative: M.J.O. Lee (287-7246)

Physics is the study of the basic laws that govern how material objects move and influence each other. The effect of a star on the motion of a planet, or of the Earth on the motion of a satellite, the effect of a molecule on a nearby atom, or of an atomic nucleus on an electron, can be accurately described by the laws of physics. Although Newton's laws of motion adequately describe some of these situations, in most cases it is necessary to apply the more recently discovered refinements of these laws - quantum mechanics and the theory of relativity, together with the understanding of electric and magnetic effects so beautifully synthesized in Maxwell's theory of electromagnetism. From these basic principles many of the properties of gases, liquids, solids, plasmas, and nuclear matter can be related to the interactions among the individual units of which the substances are composed.

These physics allows us to describe the properties of light, sound and heat up to the point where these enter our senses, as well as x-rays, cosmic and other rays 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, from the basis of a wide range of applications of the subject.

It is possible to develop, in mathematical language, theories that so accurately describe physical phenomena that they may be used to predict the results of many carefully controlled experiments. The study of physics, therefore, involves both mathematics and the techniques of experimentation.

At University of Toronto at Scarborough, a student interested in Physics can take the Specialist Programme in Physical & Mathematical Sciences (Physical Sciences stream), the Specialist Programme in Computer Science and Physical Sciences (Computer Science and Physics stream), or the Major Programme in Physical Sciences. In addition, there is a Co-operative Programme in Computer Science and Physical Sciences.

NOTE: There are two two-term introductory sequences in physics, each of which is accompanied by its laboratory. PHYA101/PHYA121 is designed for those students who do not have an OAC in Physics, and PHYA201F/PHYA215 is designed for those students who have an OAC in Physics. Of the two first-year courses, PHYA201F makes the greater use of mathematics and places more emphasis on developing problem solving skills, while PHYA215 offers a broader coverage of the concepts of classical physics and their applications.

As PHYA215 has a calculus prerequisite, a first-year calculus course is an implicit prerequisite for every student who registers for either two-term introductory sequence in physics. PHYA101F, whose course content is designed primarily for students in the Environmental Sciences, may be taken as a one-term introduction to physics without calculus prerequisites. PHYA315 is an alternative one-term introduction to physics whose course content is designed primarily for students in Computer Science. Please note that no student who has taken either PHYA101F or PHYA215 may take PHYA215. PHYB215 (Electricity and Magnetism) and PHYB221 (Electronics) are the only second-year physics courses that are open to students who have taken PHYA215.

Please refer to the Physical Sciences Scarborough prereq on page 116 for a full description of these programmes.

Description of these programmes will be found on subsequent pages of this document.

MAJOR PROGRAMME IN PHYSICAL SCIENCES

Supervisor: M.J.O. Lee (287-7246)

The Major Programme in Physics is intended for students desiring a general background in the physical sciences (with emphasis on the fields of astronomy, physics and physical chemistry) but who do not intend to pursue graduate studies.

Parallel major programmes for students more interested in the mathematical sciences or in chemistry are available in Mathematical Sciences, in Chemistry, and in Biochemistry. The requirements include the full-course equivalents as follows:

First Year:
ASTA10Y Introduction to Astronomy
CDBA20Y General Chemistry
CSCA51S Introduction to Scientific Computing (Recommended)

or
CSCA51F Introduction to Computer
Science
MATA24Y Calculus
PHYA22Y Principles of Classical Physics
PHYA215 Principles of Modern Physics
PHYA10F Dynamics of Classical Systems
PHYA221 Principles of Modern Physics

Some of these can be deferred to second year, but they are prerequisites for second- and third-year courses and must be carefully checked.

Second and Third Years:
Any 3.5 full-course equivalents from the following:

NOTE: Students who think they might subsequently proceed to complete the Specialist Programme in Mathematical and Physical Sciences (Physical Sciences stream) should consider taking the courses marked with an asterisk (*), since these courses are required for the Specialist Programme.

ASTA50F** Introduction to Classical Mechanics
CHEM221** Introductory Physical Chemistry
MATA40Y Linear Algebra
MATB41Y Techniques of the Calculus of Several Variables I
MATB42Y Techniques of the Calculus of Several Variables II
PHYB230F Classical and Quantum Waves
PHYB215S Electricity and Magnetism
PHYB221* Electromagnetism
PHYB222* Physics Laboratory
PHYC225* Structure of Matter
PSCS20F Chaos, Fractals and Complexity
PSCS21F** Physical Principles of Modern Technology
SCIS221* Statistics

*Co-requisites and prerequisites must be carefully checked; for example, MATB41F is a co-requisite for PHYB221.
PHYS105F Dynamics of Classical Systems
Telephone ID #: 24811003
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.
Exclusion: PHY107, PHY110, PHY115, PHY120; Prerequisite: OAC Calculus & OAC Algebra and Geometry or OAC Finite Math
Session: Winter Day

PHYS125F Principles of Classical Physics
Telephone ID #: 24812093
An introduction to classical physics for those with some background in physics. It is similar in content to PHY105F, but it makes greater use of mathematics and gives students greater opportunity to develop problem solving skills.
Classical mechanics: potential energy, conservation law, rectilinear dynamics, planetary motion, harmonic vibrations, wave equations; thermodynamics: temperature, entropy, ideal gases. Two lectures and one tutorial each week and a three-hour laboratory every second week.
Exclusion: PHY202F, PHY215F, PHY217F; Prerequisite: PHY110, PHY115, PHY120; Corequisite: OAC Calculus and OAC Algebra and Geometry or OAC Finite Math
Session: Winter Day

PHYS125 Principles of Modern Physics
Telephone ID #: 24812115
An introduction to quantum physics for those who have completed PHY105F or PHY120F. Electric and magnetic fields, electromagnetic waves; special theory of relativity: universality of the speed of light, Lorentz transformation, relativistic mechanics, E-m~2; quantum physics: the wave nature of matter, particle nature of light, quantum states, atomic spectra, introduction to quantum mechanics, interpretation of quantum mechanics, energy, intensity function; nuclear structure, energy from nuclear fusion and fission.
Two lectures and one tutorial each week and a three-hour laboratory every second week.
Exclusion: PHY107, PHY110, PHY115, PHY120; Prerequisite: PHY120F or PHY125F
Session: Winter Day

PHYS125F Principles of Electronic Devices
Telephone ID #: 24813153
An introduction to the concepts of physics intended primarily for students in Computer Science.
Classical Mechanics: Forces, static equilibrium, the law of descent, Newton's laws of motion, kinetic and potential energy, simple harmonic motion, resonance, classical waves.
Electromagnetics: electric fields, capacitance, current and resistance, magnetic fields, Lorentz force, electromagnetic induction, inductance, Electromagnetic Devices: AC circuits, electromagnetic waves, Propagation of pulses, distortion, semiconductors, the F-N function, transistors, feedback, logic gates, bistable devices, binary representation of numbers, arithmetic circuits, solid state storage and magnetic storage of data.
Two lectures and one tutorial per week, and a three-hour laboratory every second week.
Exclusion: PHY105F, PHY107F, PHY110, PHY115, PHY120; Prerequisite: OAC Calculus and OAC Algebra and Geometry or OAC Finite Math
Session: Winter Day

PHYS202F Classical and Quantum Waves
Telephone ID #: 24822003
A study of harmonic motion, damping, driven and coupled oscillators, standing and running waves; interference and diffraction; atomic models; wave functions in quantum theory; wave-particle duality; de Broglie matter waves; wave mechanics of 1-dimensional systems.
Prerequisite: PHY215F and MATA20Y
Session: Winter Day

PHYS215 Electricity and Magnetism
Telephone ID #: 24822153
A study of Coulomb's law, electric fields, Gauss' law, electric potential, capacitance, dielectrics, magnetic forces and fields, induction, magnetization, Faraday's law of displacement current, Maxwell's equations. Includes applications with in such fields as demography, genetics and physics.
Prerequisite: PHY125F or PHY121F
Session: Winter Day

PHYS222F Electronics
Telephone ID #: 24822233
A study of non-linear elements including diodes and transistors, rectifiers, simple filters, amplifiers, pulse circuits, operational amplifiers, logic gates, Boolean algebra, digital electronics. Includes a three-hour laboratory every second week.
Prerequisite: PHY125F (PHYAADY) or PHY115
Session: Winter Day

PHYS225F Physics Laboratory
Telephone ID #: 24822343
Experiments in circuit theory, basic electricity and magnetism, solid state physics and atomic and nuclear physics. A six-hour laboratory once every two weeks.
Co-requisite: PHY121F
Session: Winter Day

PHYS225 Structure of Matter
Telephone ID #: 24822343
Introduction to the quantum description of electronic properties of atoms, molecules and solids (including semiconductors and superconductors); fundamental physics of elementary particles and structure of nuclei; nuclear power. Course includes discussion of Fermi and Bose statistical distributions.
Prerequisite: PHY125F
Session: Winter Day

PHYS227F Statistics
Telephone ID #: 24822223
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 to demonstrate concepts; however, no previous experience with a computer is required. The course covers descriptive statistics, probability and expectation, correlation and regression, sampling, experimental design and the use of statistical computer software.
Exclusion: ANTC33, (BIOG28), EXUM90, (ECOM110), (GEOG31), PSY107, SOC306, (STAT222), STA225
Session: (P) Winter Day, Session (S): Summer Evening
even in historically stable liberal democracies, political mobilization by race, ethnicity, language, and gender challenges the legitimacy of established cultural and political relationships. Potentially catastrophic problems, such as expanding populisms, proliferations of nuclear weapons, and environmental degradation, increase the possibility of national governments and international organizations to secure human survival. Dealing with these problems is a fundamental necessity for citizens and their governments. In its teaching, research, and community service, the discipline of Political Science seeks to help in meeting this need.

Political Science is the study of enduring issues of power and authority, citizenship and governance, justice and legitimacy in ancient and modern states and societies. In the area of Canadian government, political studies focus on the institutions and processes of politics and public decision-making in Canada, including constitutional development, intergovernmental relations, public administration, and public policy. Courses in comparative politics deal with the problems of political change and development in regions such as Asia, Europe, Latin America, and the Middle East. These courses study the political institutions and practices of a variety of countries in order to provide a comparative perspective for analyzing and judging the primary issues of politics. International relations is devoted to studying the foreign policies of particular nation-states and the patterns of conflict and cooperation among states. Political economy 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 propositions of politics from ancient Greek philosophers to post-modern social theorists.

**SPECIALIST PROGRAMME IN POLITICAL SCIENCE**

Applications for admission to the Specialist Programme are accepted after students have completed at least four full-course equivalents (that is, generally after completing the first year of the degree programme). Applicants must have completed POLASY. Students must complete at least seven full-course equivalents in Political Science, at least two of which must be at the C or D level. The courses must include the following:

1. **POL100Y** Introduction to Politics: Canada
2. **POL200Y** International Relations
3. **POL210Y** Comparative Politics of Political Development
4. **POL220Y** Comparative Politics of Democratic Government
5. **POL275** Political Analysis

**MINOR PROGRAMME IN POLITICAL SCIENCE**

The Programme requires the completion of at least nine full-course equivalents in Political Science. At least two of these must be at the C or D level. There are two options: either the four full-course equivalents...
POLCSFV Political Analysis
Telephone IDE: 25232173
An examination of the methods of analysis used in the empirical study of politics. The purpose of the course is to enable the student who reads political literature to identify underlying values and assumptions, to differentiate good from poor logic of argument, to distinguish between adequate and inadequate use of evidence and between warranted and unwarranted conclusions drawn from that evidence. Special attention will be paid to the questions surrounding the "science of politics." Preerequisite: One course in Political Science Session: Winter Day D. Cool

POLCS8Y The New International Agenda
Telephone IDE #: 25238863
An examination of issues attracting attention from scholars and policy-makers in the post-Cold War world, as well as newer approaches for studying and managing them. The issues the course would cover would include management of international environmental problems; the status and treatment of women in politics, society, and the global economy; demographic change, migrations, and refugees; emerging and re-emerging infectious disease; non-proliferation of weapons of mass destruction (nuclear, chemical, biological); and terrorism, law enforcement, and the war on drugs. Preerequisite: POL6070 or equivalent Session: Winter Day D. Welch

POLCS6Y Politics and Society in the Middle East
Telephone IDE #: 25239665
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. Prerequisite: POL6091 or ANT1055 or IDS8010 Session: Winter Day P. Kingston

POLDS05 Political Interests, Political Identity, and Public Policy
Telephone IDE #: 25245553
An examination of the interaction 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: POL5050 (POL5305Y or POL5304Y) or SCCCC4785 Session: Winter Day T.B.A.

POLDS15 Topics in Canadian and Comparative Politics
Telephone IDE #: 25245133
A seminar course that explores selected issues of Canadian politics from a comparative perspective. In 1995-96 topics in this course will focus on comparative studies of the politics of ethnicity, gender, and language. Prerequisite: POL5050 (POL5305Y or POL5304Y) Session: Winter Day T.B.A.

POLDS1Y Canadian Political Ideas
Telephone IDE #: 25247163
An examination of the ideas informing Canadian political movements and parties from Confederation to the present. The seminar will require two class presentations during the year. Exclusion: POL6070. Prerequisite: POL5050 (POL5305Y or POL5304Y) or POL5050Y or Histr5050 Session: Winter Day E. Andrew

POLDSX Selected Topics on Developing Areas
Telephone IDE #: 25230665
This seminar course focuses upon the relationship between economic, social and political change in Latin America. Topics include the role of technocratic elites, popular mobilization and gender issues. Case studies include Mexico, Nicaragua, Peru, Bolivia, Brazil, Argentina and Chile. Prerequisite: A Social Sciences or Humanities course on the Third World of Development. Session: Winter Day J. Trachten

POLDS9Y Supervised Research
A research project under the supervision of a professor or an instructor in the area of an area of interest. Prerequisites: A B.A. or B.C.L. in Political Science, an instructor who is willing to supervise the project, and the student must obtain consent from the supervising instructor before registering for this course. Exclusion: POL5015Y. Preceptor: Summer Evening, Winter Day, Winter Evening Staff

POLDS9Y Supervised Reading
Advanced reading programme in special topics. This course is meant only for those students who, having completed the available basic courses in a particular field of Political Science, wish to pursue further intensive study on a relevant topic of special interest. Students are advised that they must obtain consent from the supervising instructor before registering for this course. Exclusion: POL5015Y. Preceptor: One B-level course in Political Science & permission of instructor. Session: Summer Evening, Winter Day, Winter Evening Staff

POLDS6Y Canadian Public Policy and Administration
Exclusion: POL5195F, POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

POLDSX Selected Topics on Developing Areas
Telephone IDE #: 25230665
This seminar course focuses upon the relationship between economic, social and political change in Latin America. Topics include the role of technocratic elites, popular mobilization and gender issues. Case studies include Mexico, Nicaragua, Peru, Bolivia, Brazil, Argentina and Chile. Prerequisite: A Social Sciences or Humanities course on the Third World of Development. Session: Winter Day J. Trachten

POLDS9Y Supervised Research
A research project under the supervision of a professor or an instructor in the area of an area of interest. Prerequisites: A B.A. or B.C.L. in Political Science, an instructor who is willing to supervise the project, and the student must obtain consent from the supervising instructor before registering for this course. Exclusion: POL5015Y. Preceptor: Summer Evening, Winter Day, Winter Evening Staff

POLDS9Y Supervised Reading
Advanced reading programme in special topics. This course is meant only for those students who, having completed the available basic courses in a particular field of Political Science, wish to pursue further intensive study on a relevant topic of special interest. Students are advised that they must obtain consent from the supervising instructor before registering for this course. Exclusion: POL5015Y. Preceptor: One B-level course in Political Science & permission of instructor. Session: Summer Evening, Winter Day, Winter Evening Staff

Courses Not Offered in 1997/98

POL805Y Canadian Public Policy and Administration
Exclusion: (POL6050F), (POL8050F), POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

POL805Y Canadian Public Policy and Administration
Exclusion: (POL6050F), (POL8050F), POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

POL805Y Canadian Public Policy and Administration
Exclusion: (POL6050F), (POL8050F), POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

POL805Y Canadian Public Policy and Administration
Exclusion: (POL6050F), (POL8050F), POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

POL805Y Canadian Public Policy and Administration
Exclusion: (POL6050F), (POL8050F), POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

POL805Y Canadian Public Policy and Administration
Exclusion: (POL6050F), (POL8050F), POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

POL805Y Canadian Public Policy and Administration
Exclusion: (POL6050F), (POL8050F), POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

POL805Y Canadian Public Policy and Administration
Exclusion: (POL6050F), (POL8050F), POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

POL805Y Canadian Public Policy and Administration
Exclusion: (POL6050F), (POL8050F), POL6195F, POL8195F, POL6190Y, POL8190Y, POL6190Y (POL5040Y or IDS8020F) Session: Winter Day E. Andrew

Psychology

POL787Y Women in Political and Social Theory
Exclusion: (POL734Y, POL734Y)

POL887Y American Foreign Policy
Prerequisite: POL6050Y or POL8050Y

POL887Y Canadian Foreign Policy
Exclusion: POL513YT
Prerequisite: POL5050Y (POL5050Y or POL6050Y)

POL889F Current Topics in Politics
Exclusion: POL512YT
Prerequisite: IDS6050Y or POL6050Y

POL897Y Politics and Society in Latin America
Exclusion: POL5050Y
Prerequisite: POL5095Y or IDS6075YS

POL89S5 Organized Interests and the State
Exclusion: POL5050Y, POL5050Y or POL5050Y

POL89S5 The Psychology of International Relations
Exclusion: POL5815F/5
Prerequisite: POL6050Y

Faculty List
B. Ferris, B.A., B.A. (Toronto), M.A., Ph.D. (Michigan) Professor Emeritus
J. Basulto, B.A. (McGill), Ph.D. (Cornell), Professor
O.B. Schuman, B.Sc. (CNAY), Ph.D. (NYU), Professor
D.C. Sapulka, B.A. (Michigan), M.A., Ph.D. (Wisconsin), Professor
K.S. Dijk, B.A. (Amherst), Ph.D. (Minneapolis), Professor
J.E. Foley, B.A., Ph.D. (Sydney), Professor
G.O. Ivey, B.A. (Drew), Ph.D. (California, Irvine), Professor
J.M. Kennedy, B.Sc., M.Sc. (Belfast), Ph.D. (Cornell), Professor
A. Kukla, A.B., M.A., Ph.D. (UCI), Professor
The Major Programme in Psychology is designed to introduce students to the main areas within the discipline. The Major Programme is designed for students who are interested in a low intensive exposure to the field. Often, students desire to concentrate their studies in two areas, in which case a double Major Programme combining psychology with another discipline is ideal.

Students particularly interested in the relation of brain to behaviour should consider the Specialist or Major Programme in Neuroscience described earlier in this Calendar. Those particularly interested in the study of knowledge - language, communication and thought - may wish to consider the 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 PSYB101/5 and PSYB202 be taken consecutively in the two terms of second year. Students should be aware that with the exception of PYS100Y and 200H, all other courses in the Faculty of Arts Science correspond to B, C, or D-level and all 400 series are considered D-level. Students are encouraged to plan carefully so that they will meet their educational objectives over the years of their studies. Discussions with the Supervisor of Studies can be invaluable in this regard.

Courses in Neuroscience
To facilitate organization of the calendar, all Neuroscience courses that formerly had PST designations have now been given NEO designations. Consequently, effective this year, these courses appear only in the Neuroscience listings. Students interested in including Neuroscience courses in their Psychology programme should consult the Neuroscience section for details. Former PST course numbers are indicated there as well.

MAJOR PROGRAMME IN PSYCHOLOGY

Supervisor: J.E. Foley (office 5564)

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

A. 10.5 full-course equivalents in Psychology, as follows:

1. PSYA101Y Introduction to Psychology (1 full-course equivalent)
2. Statistical Methods (1 full-course equivalent) (PSYB015/5 Data Analysis in Psychology (STAB22 may not be used to fulfill this requirement)
3. Experimental Design in Psychology
4. Laboratory Methods (1 full-course equivalent) (PSYB101/5 Psychological Research Laboratory and (b) one half-course (1.5 full-course equivalent) from among the following:
- PSYCH 515 Social Psychology Laboratory
- PSYCH 561 Experimental Psychology Laboratory
- PSYCH 565 Psychological Methods Laboratory
- PSYCH 570 Experimental Psychology Laboratory
- NRO 306 Neuroscience Laboratory (or PSYC 305*) (Neuroscience Laboratory)
- (NOTE: Students who have taken PSYC305 also receive 0.5 course credit towards satisfaction of Requirement 6b or 7b)
5. PSYCH 591 Fundamentals of Communication in Psychology
6. History and Theoretical Psychology (1 full-course equivalent) (a) PSYCH 575 Theoretical Psychology or (b) PSYCH 595 History of Psychology
7. Courses at the B-level and/or C-level (3 full-course equivalents)
   Students are required to take one full-course equivalent at the B-level and/or C-level from each of the three content groups listed below:
   (a) Social, Developmental and Personality courses (listed in the 10-, 20-, and 30-series)
   (b) Learning and Physiology courses (listed in the 40- and 50-series)
   (c) Perception, Language and Cognition courses (listed in the 50-series)
8. Courses at the D-level (2 full-course equivalents)
   In selecting these two full-course equivalents at the D-level, students may not include more than 1.5 full-course equivalents from any one of the content groups listed under 6a, 6b, or 6c. Specialities are encouraged to plan on enrolment in the thesis course (PSYD99Y) in their third or fourth year, particularly if they intend to pursue a career in Psychology or a related discipline.
9. Additional courses in Psychology (1.5 full-course equivalents)
   Students must choose 1.5 further full-course equivalents from any of the remaining courses in psychology. The choice is unconstrained.
B. 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.

SUPERIOR PROGRAMME IN PSYCHOLOGY

Supervisor: J.E. Foley (office 5564)

The Programme requires completion of 6.0 full-course equivalents in Psychology and normally results in the 3-year B.Sc. in Psychology.

1. PSYD101Y Introduction to Psychology (1 full-course equivalent)
2. PSYD102/5 Psychological Research Laboratory (1.5 full-course equivalent)
3. PSYD103/5 Data Analysis in Psychology (1.5 full-course equivalent) (STAB22 may not be used to fulfill this requirement)
4. Courses at the B-level and/or C-level (1.5 full-course equivalents)
   Students are required to select one half-course (1.5 full-course equivalent) at the B-level and/or C-level from each of the three content groups listed below:
   (a) Social, Developmental and Personality courses (listed in the 10-, 20-, or 30-series)
   (b) Learning and Physiology courses (listed in the 40- and 50-series)
   (c) Perception, Language, and Cognition courses (listed in the 50-series)
5 Course at the D-level (5 full-course equivalent)
   Students must choose one half-course (5 full-course equivalent) from the D-
   level offerings in Psychology.
6 Additional courses in Psychology (5 full-course equivalent)
   Students must choose two further full-
   course equivalents from any of the
   remaining courses in Psychology. At
   least one full-course equivalent from
   these must be at the C- or D-level.

MINOR PROGRAMME IN PSYCHOLOGY
Supervisor: J.E. Toley (office 5504)
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 PSY01Y Introduction to
   Psychology (1 full-course equivalent)
2 PSYB01Y Psychological Research
   Laboratory (1.5 full-course equivalent)
3 PSYB07PS Data Analysis in
   Psychology (1.5 full-course
   equivalent) (STA322 may not be
   used to fulfill this requirement)
4 Students are required to select one
   half-course (5 full-course equivalent)
   from each of the three content groups
   listed below (1.5 full-course equivalent):
   (a) Social, Developmental and
   Personality courses (listed in the
   20-, 25-, or 30-series);
   (b) Learning and Physiology
   courses (listed in the 40- or 60-
   series);
   (c) Perception, Language, and
   Cognition courses (listed in the
   10-series).
5 Additional course in Psychology
   (5 full-course equivalent)
   Students must choose five further full-
   course equivalents, including remaining
   course in Psychology.

PSY041Y Introduction to Psychology
   (Telephone ID # 25770153)
   A study of the basic principles and
   methods of contemporary psychology.
   Using these elementary principles and
   methods, the student will seek to
   understand how organisms, both human
   and infrahuman, function in their
   environments, how their behaviour is
   modified by experience, and how their
   activities are instigated, modified, and
   directed.

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

   Exclusion: PSY101, PSY200
   Session: Summer Evening, Winter Day,
   Winter Evening
   The Faculty

PSYB01F Psychological Research
   Laboratory
   Telephone ID #: 25720013
   The intent is to present the principles of
   scientific method as they apply to
   experimental psychology. Using
   examples from a variety of research areas
   in Psychology, the development of
   research projects in psychology will be
   described. The nature of hypotheses
   testing through the design of experiments
   provides the nucleus of the course. Out
   of this grows discussion of issues important
   in planning and conducting research:
   generating research problems, experimental
   control, sampling of subjects, scaling and
   measurement, interpretation and evaluation
   of results, theory construction, and preparation
   of the research report. The social
   psychology of the experimental and
   ethical issues in research will also be considered.

   Topics will survey the entire range of
   experimental psychology. Research
   methods will be introduced in lectures and
   illustrated with practical exercises. This
   course is required for both the Major and
   the Special Major in Psychology.

   Prerequisite: PSY101
   Session: Winter Evening,
   C. Bordenau

PSYB02F Data Analysis in Psychology
   Telephone ID #: 25727033
   An examination of the role of statistical
   decision-making procedures in drawing
   reasonable inferences from research
   findings.

   This course details the mechanics of a
   variety of commonly used data analysis
   procedures and explores their underlying
   logic. Data reduction techniques include:
   frequency distributions, measures of
   central tendency and variability, linear
   transformations, correlation and
   regression, and hypothesis testing.

   Procedures based on the binomial, t-
   square, normal, and 'F' distributions.

PSY104F Introduction to Social Psychology
   Telephone ID #: 25721003
   Surveys social influence (conformity and
   obedience), prejudice, sexism, attitude
   change, group behaviour (crowding, crowd
   behaviour, panic), aggression, cooperation
   and competition, nonverbal communication,
   person perception, attraction and emotions.

   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: PSY220
   Prerequisite: PSY101
   Session: Winter Day
   T.B.A.

PSY105F Introduction to Developmental Psychology
   Telephone ID #: 25722003
   Developmental processes during infancy
   and childhood.

   This course presents students with a
   broad-based integrative overview of child
   development. Major theories and research
   findings will be discussed in order to
   understand how the child changes
   physically, socially, emotionally, and
   cognitively with age.

   Topics are organized chronologically
   beginning with prenatal development and
   continuing through selected issues in adolescence
   and life-span development.

   Three lecture hours per week.

   Exclusion: PSY240
   Prerequisite: PSY101
   Session: Winter Evening, Winter Day
   M. Schmuckler.

PSY201F Personality
   Telephone ID #: 25723005
   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 developmental
   psychology, cognitive science, artificial
   intelligence, and psychopharmacology.

   The aim of this course is to acquire
   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: PSY101
   Session: Winter Day
   T.B.A.

PSYB025F Abnormal Psychology
   Telephone ID #: 25723253
   Definition and identification of
   abnormality, historical-cultural influences
   on attitudes, practices, theories, and
   research; a variety of past and current
   viewpoints in the development of
typologies, model and theory, including
   genetic, physiological, stress, medical-
psychiatric, psychodynamic, social-
learning, and sociological classification
systems, including problems in their
reliability and validity; description of a
variety of sources, psychoses, and other
behavioural disorders of adults and
children, including cognitive, emotional,
sensory-perceptual, psychomotor, and
motor astatic; approaches, methods of
investigation, and findings in
psychological, psychopharmacological,
geneic, and epidemiological research;
management, control, and modification of
abnormal behaviour within and outside
institutions, including pharmacological,
psychotherapeutic, learning-based, and
social engineering approaches.

Defining abnormality and
categorizing its varieties will be covered.

Exclusion: PSY240
Prerequisite: PSY101
Session: Winter Evening
T.B.A.

PSYB04F Behaviour Modification: Origins and Applications
   Telephone ID #: 25724553
   A systematic and controlled approach to
   understand and regulate human behaviour
   in non-laboratory settings. Theoretical
   principles derived from diverse areas of
   experimental psychology and a practical
   analysis of current applications and systems of
   behaviour modification and control will also be
   included.

   Psychological underpinnings: basic
   concepts and models of behavioural change;
   research strategies; operant procedures;
   reinforcement schedules, extinction,
shaping, self-reinforcement, fading, chaining, interactions, the locus of action, behavioral contracting, biofeedback, punishment and its side effects; cognition and behavior therapy, attribution, placebo effects, cognitive therapy, rational-emotive therapy, thought stopping, problem-solving, modeling; establishment of new behaviors, fear extinction, assertive training; treatment of depression and schizophrenia; systematic desensitization; treatment of anxiety, abusive counter-conditioning; treatment of alcohol and drug abuse.

Exclusion: P54Y34
Prerequisite: P54Y01Y
Session: Winter Evening
F. Kühler

P52Y05F Sensation and Perception
Telephone ID #: 25725033
The physics, anatomy, and physiology of processes underlying perception, emphasizing the energies involved in different senses.

Sensitiveness for the human senses, especially light and sound: receptors and sensory pathways with emphasis on vision and audition; sensitivity; color; spatial and temporal resolution; contrast; depth; form; speech perception. The teaching method will be lecture, for which prelearning reading will be important, and lab/tutorials requiring some written reports.

Exclusion: P52Y20
Prerequisite: P54Y01Y
Session: Winter Day
J. E. Foley

P52Y51S Perception and Cognition
Telephone ID #: 25725153
Theory and empirical research on perception and cognition, including problems of reasoning, symbolism and visual and tactile perception, representation, and communication. Topics include the conceptual and ecological approaches to cognition and perception in the handicapped and normal perceiver: perceptual information and projection. Illusory perception, shadow patterns and flow fields during motion, perceiving and impossible scenes, 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. Demonstrations and exercises form part of the course work.

Prerequisite: P54Y01Y
Session: Winter Evening
J. Kennedy

P52Y07S Memory and Cognition
Telephone ID #: 25725755
Discourse 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 informative processing.

Three lecture hours per week.
Exclusion: P52Y20
Prerequisite: P54Y01Y
Corequisite: P54Y07YS
Session: Summer Evening, Winter Day
C.M. MacLeod

P52Y26F Human Brain and Behaviour
Telephone ID #: 25726533
An examination of the neurological basis of human behavior: an introduction to human neuroanatomy.

The course focuses on the following: higher brain function in human: hemispheric specialization, neuropsychology of speech, disorders of the central nervous system (multiple sclerosis, epilepsy, organic brain damage, strokes, Alzheimer's disease, frontal lobe syndrome, neglect, and speech disorders); psychopharmacology and the biological basis of psychiatric disorders.

Three hours of lecture per week.
Prerequisite: P54Y01Y
Session: Winter Day
T. Flint

P52Y05F Scientific Communication in Psychology
Telephone ID #: 25730231
A discussion of the development and enhancement of practical and professional skills on current standard discourse in the field of psychology. The primary focus is on improving the student's ability to think, organize information and communicate clearly, critically and effectively within the discipline. Related skills often helpful for the production of sound arguments and communication, such as strategies for literature search, will be incorporated into the course.

2 credits. Open to all students enrolled in the Psychology Specialist Program, and recommended to be taken in the student's third year.
Prerequisite: P52Y01YS & P52Y07YS & P54Y07YS
Session: Winter Evening
J. E. Foley

P52Y05S Experimental Design in Psychology
Telephone ID #: 25730853
The analysis of variance as a research tool and the rationale and mechanics of its application to a variety of experimental designs: simple randomized, repeated measures, factorial. Additional topics discussed include homogeneity of variance, multiple comparisons, trend analysis.

The course extends the range of techniques examined in P52Y07YS. Procedures are considered which permit the analysis and interpretation of data from complex experiments involving the simultaneous manipulation of several independent variables. The course is highly recommended for all students contemplating supervised individual research in Psychology.

Three hours of lecture and one hour of tutorial per week.
Exclusion: STAC52, P54Y02
Prerequisite: P52Y07YS and one additional B-level half-course in Psychology.
Session: Winter Evening
J. Andrews

P52Y12S Advanced Social Psychology
Telephone ID #: 25731253
A detailed examination of selected social psychological topics introduced in P52Y12S.

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 are covered. Teaching method: lectures.

Exclusion: T420
Prerequisite: P52Y07YS & P52Y110YS plus one additional B-level half-course in P5Y
Session: Winter Evening
T. B. A.

P52Y18S The Psychology of Emotion
Telephone ID #: 25731353
The course will examine emotions in everyday life and in aesthetics. It will begin with a historical survey of emotional theories from the Greeks until the 20th century, and then focus on understanding emotion's (e.g., emotions, sadness) and dimensional theories which focus on bodily states, (e.g., arrousal, pleasure) will be discussed. Emphasis will be placed on the role of emotion in social situations. The course will consider processes that govern the experience of pleasure and the search for meaning in aesthetic creativity and reception. Text: Keith Oatley and Jennifer Jenkins. (1995) Understanding Emotion, Blackwell, Cambridge, MA. Exclusion: P52Y04
Prerequisite: P52Y07YS & P54Y07YS or permission of instructor
Session: Winter Day
G.C. Capplitt

P52Y21F Advanced Developmental Psychology
Telephone ID #: 25732133
An examination of selected issues pertaining to adult development, particularly during early and middle adulthood.

Examples of topics which may be included: adaptation to parenthood, work-related functioning, continuity versus change in adulthood. Teaching method: lectures, discussion.

Exclusion: P52Y03
Prerequisite: P52Y07, P52Y20 plus one additional B-level half-course in P5Y
Session: Winter Day
K. K. Dinn

P52Y24S Developmental Psychopathology
Telephone ID #: 24802453
A study of the development and clinical diagnosis and treatments of common psychological disorders. In particular, the course focuses on the development and clinical diagnosis and treatments of common psychological disorders.

Exclusion: T420
Prerequisite: One FCE in LIN and one FCE in P5Y or PHIL100M or one FCE in LIN, or P5Y or PHIL100M
Session: Winter Day
R. Zemly

P52Y26F Developmental Psychology Laboratory
Telephone ID #: 25732633
This course introduces conceptual and practical issues concerning research in developmental psychology, providing opportunities with different types of developmental research methodology. Developmental psychology focuses on the process of change within and across different phases of the life-span. Reflecting the broad range of topics in this area, there are diverse research methods. These methods include techniques for studying...
infants' behaviour (habituation, operant conditioning procedures) as well as procedures for studying development in children, adolescents, and adults (such as the Piagetian interview method, behavioural observation, questionnaires). This course will cover a representative sample of some of these approaches. Also, consideration of issues concerning research designs as it applies to developmental issues will be included. Limited enrollment: 24
Exclusion: PST319
Prerequisites: PSYB01/F & PSYB07/F & PST20/F
Session: Winter Day
K.E. Dion

PSYC425 Learning Laboratory
Telephone ID #: 25734253
Critical review of basic theories 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 behaviour. Topics include: reinforcement, motivation, classical and instrumental conditioning principles, theory construction.
The course provides theoretical and empirical relevance to basic concepts and current problems in learning and motivation.
Exclusion: PST260, PSY359, PST359
Prerequisite: PSYB05/F & PSYB07/F (or equivalent)
Session: Winter Day
G. Germain

PSYC426 Applied Psychology of Learning
Telephone ID #: 25734553
The purpose of this course is to present principles of scientific psychology in relation to selected areas in the applied psychology sciences. It is designed to review the logic and validity of modern applied learning theories and measurement strategies in these areas: e.g. remediation strategies in reading, learning disabilities (e.g. autism, MR, learning disabled). Cognitive, Piagetian, and operant approaches will be considered, with the emphasis on the experimental literature rather than theory.
Course emphasizes critical evaluation of the literature and will have easy examinations and one major paper as a course requirement.
Prerequisites: PSYB01/F & PSYB07/F & PSYB09/F (or equivalent) also recommended
Session: Winter Day
G. Birnbaum

PSYC425 Cognition and Representation
Telephone ID #: 25734545
A study of recent theories of perception and representation relevant to the use of language and gesture. Topics may include making and interpreting metaphors, recognizing cross-modal equivalence, learning how to draw and symbolize in vision and touch, and the effects of blindness on the development of skills with patterns normally found in vision and audition.
The research to be considered will emphasize studies on the blind, and child development.
The teaching method includes lectures and demonstrations.
Prerequisite: PSYB07/F & a PSYB30-series or a PSYB50-series half-course in PSY
Session: Winter Day
J. Kennedy

PSYC426 Psychology of Language
Telephone ID #: 34835533
An exploration of experimental evidence for theories of how humans 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 memory systems in language processing.
Exclusion: CST25/25, JLP35/35
Prerequisite: One full-course equivalent in LIN 110/110 or equivalent in PSY
Session: Winter Day
R. Song

PSYC420 Psychology of Music
Telephone ID #: 25735683
Studies the perceptual and cognitive processing involved in musical perception and appreciation.
Music is one of the most complex and interesting forms of auditory information that humans process. This class acquaints students with the basic concepts and issues involved in the understanding of musical passages. The focus of this course is on the perception and cognition of musical materials, taking as its starting point the music listener as a gatherer and interpreter of information from the environment. Topics will include discussions of the physical and psychological dimensions of sound, elementary music theory, pitch perception and melodic organization, the perception of rhythm and time, musical memory, emotional performance, and meaning in music, cultural contexts of music, and cross-cultural studies of musical behavior. The format of this class will include both lecture and discussion, and the course requirements will include two in-class tests, a final exam, active participation in class discussions, demonstrations, exercises, readings, as well as other class projects.
Prerequisites: PSY100/F and PSYB07/F, and a PSYB50-series half-course.
Session: Winter Day
M. Schmuckler

PSYC428 Experimental Psychology
Telephone ID #: 25735853
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, with particular emphasis on research in cognitive.
The teaching method will consist of lectures on using the computer as a tool for psychological research, and lectures on the programming language. No previous computer experience is expected or required.
Limited enrollment: 20
Exclusion: PST30/30, and any course in Computer Science with the exception of CIC440.
Prerequisite: PSYB01/F & PSYB07/F (or equivalent)
Session: Winter Day
D. Rovy

PSYC426 Theoretical Psychology
Telephone ID #: 25736333
An introduction to the assumptions 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: PST701
Prerequisite: PSYB07/F or permission of instructor
Session: Winter Day
A. Kafia

PSYC426 History of Psychology
Telephone ID #: 25738533
A survey of developments in Western philosophy and science which influenced the emergence of modern psychology in the second half of the Nineteenth Century. Twentieth Century schools of psychology are discussed, including functionalism, structuralism, Gestaltism, Phenomenology, Behaviorism, and Cognition. The course is designed for students who want to integrate their knowledge of the different areas of psychology and offers good preparation for graduate school.
This course examines changes in the treatment of three basic problems: mind-body, epistemology (the science of knowledge) and behavioral ethics. We begin with the ancient Greek philosophers who established the foundations of Western thought and science. The contributions of European philosophers and scientists (both physical and natural) from the Fifteenth through Nineteenth Centuries are then discussed. Topics also considered include the process of paradigm or theory change in science and the relative contribution of individual genius and Zeitgeist or intellectual climate to scientific developments.
Limited enrollment: 25
Exclusion: PST300
Prerequisite: Two B-level half-courses in Psychology: PSYB07/F or permission of instructor
Session: Summer Evening, Winter Day
G. Caputo

PSYC426/51H
PSYC426/51H Supervised Study in Psychology
A leading or research project.
These courses provide an opportunity to investigate an area in depth after completing basic coverage in regularly scheduled study and courses. They are identified as substitutes for advanced courses in fields where there are few advanced courses. The student must demonstrate a background adequate to the project proposed and should present a clear rationale to prospective supervisors. Frequent consultations with the supervisor is necessary and extensive library research and/or data collection will be required. Such a project will culminate in a written report.
Students are advised that they must obtain written permission from the supervising instructor before registering for these courses.
PSYD1F Psycholgy of Gender
Telephone ID #: 25741833
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: PSY240
Prerequisite: PSYB100F/S & PSYC120F/S
Session: Winter Evening
T.R.A.

PSYD205 Current Topics in Developmental Psychology
Telephone ID #: 25742053
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: PSY440
Prerequisite: PSYB210F/S or PLIC124F/S or PLIC215F/S or PSYD120F/S plus one C-level half-course in PSY
Session: Winter Day
M. Schmiedler

PSYD225 Socialization Processes
Telephone ID #: 25742355
The processes by which an individual becomes a member of a particular social system (or groups). The course examines both the content of socialization (e.g., development of social identity, role identity) 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: PSY440
Prerequisite: PSYB100F/S & PSYB200F/S plus one C-level half-course in PSY
Session: Winter Day
K. Dixon

PSYD330F Current Topics in Abnormal Psychology
Telephone ID #: 25743333
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: PSY940
Prerequisite: PSYB320F/S plus one C-level half course in PSY
Session: Summer Evening, Winter Day
T.R.A.

PSYD345 Human Intelligence
Telephone ID #: 25743453
Part I of this course reviews the classical theories as well as past research strategies and findings in the field of human intelligence. Part II examines current work in the area. Part III critically considers the concept of testability, how it is estimated, and its application to the investigation of individual and group differences on IQ tests.
Limited enrolment: 20
Prerequisite: PSYB100F/S & PSYB200F/S, PSYC308 also recommended.
Session: Winter Evening
D. Bars

PSYD500 Current Topics in Memory and Cognition
Telephone ID #: 25745053
An intensive examination of selected topics. The specific content will vary from year to year.
Limited enrolment: 20
Exclusion: PSY470, (PSY471)
Prerequisite: PSYB370F/S plus one C-level half course in PSY
Session: Winter Day
M. Smith

PSYD630F Psychology and the Law
Telephone ID #: 25745353
The course will focus on the application of psychology to the law, particularly the perceptual and memorial processes which influence the giving of testimony.
Limited enrolment: 20
Exclusion: PSY325
Prerequisite: a B50-series half-course plus one C-level half-course in PSY
Session: Winter Day
M. Smith

PSYD800F Computational Models of Memory and Attention
Telephone ID #: 25748003
Focuses on how the computer has recently become a tool for proposing explicit models of the representations and processes underlying human memory and attention. This course will trace the development of these models, and will emphasize the strengths and weaknesses of the computational approach. Topics covered will include such issues as neural network models and the debate concerning whether human cognition relies on local or distributed representations.
Limited enrolment: 20
Prerequisite: PSYB100F/S or PSYC480F/S or permission of instructor
Session: Winter Day
S. Jordaan

PSYD818 Psychophysics of Aging
Telephone ID #: 25748183
Aging is a complex biological phenomenon which is a universal and inevitable fact of life. This course will characterize various anatomical, biochemical and physiological changes that occur in the nervous system with age and will explore the association between these changes and cognitive deterioration. We will examine the characteristics of several age-related disease states and evaluate the validity of current theories and experimental models of aging. Two hours of lecture per week.
Limited enrolment: 20
Exclusion: PSYB600F/S
Prerequisite: NROC10F/S (PSYC101F/S)
Session: Winter Day
G. Fry

PSYD831F Thesis in Psychology
Telephone ID #: 25748313
This course offers the opportunity to engage in a year-long research project under the supervision of an instructor of the faculty in Psychology. The project will culminate in a written thesis of form of a thesis and a defense of that report. During the course of the year, at appropriate times, students will meet to present their own research projects and to review the problems of others, and to discuss the results of their investigation.
Students will meet as a group with the coordinator as well as individually with the supervisor. This course is restricted to qualified Specialists in Psychology, students planning to pursue graduate study.
studies are especially encouraged to enroll in the course. Before enrolling, students must obtain the signature of their intended supervisor. Students seeking supervision off campus are further advised to verify this with the Supervisors of Studies that the prospective project supervisor currently holds a cross-appointment at the University of Toronto. Exclusion: NRO209, PSY400.

Prerequisite: PSYORY5 & PSYORY6 & PSYORS0 & PSYORS1, Psychology Specialist Session: Winter Day Co-ordination: T.A.

Courts Not Offered in 1997/98

PSYCI05 Social Psychology Laboratory Session: 1997/98

Exclusion: PSY102

Prerequisite: PSY101 & PSY102 & PSY103 & PSY104 & PSY105 & PSY106

PLDO6S Discrepancy of Speech and Language

Exclusion: (PLDO105)

Prerequisite: One full course equivalent in LIN and one full course equivalent in PSY; and one C-level full-course equivalent in LIN, PSY or PL.

PSYTOR5 Current Topics in Theoretical Psychology

Prerequisite: PSYCR20 or permission of instructor

Sociology

(B.A.)

Faculty List

R.L. James, M.A. (Wayne State) Ph.D. (Cincinnati), Associate Emeritus
R.W. Lukas, L.A. (Ladalla), M.A. (Chicago, Cath. Univ. of America), Professor
R.O. Poole, B.A. (Lancaster), NCCE (Lancaster), Ph.D. (Treman) Professor
J.L. de Lassence, S. Sc. (Louvain), Ph.D. (California), Associate Professor
M. Hammond, B.A. (California), M.A. (Toronto), Associate Professor
J. Hamagami, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Associate Professor
P.C. Hwang, B.A. (National Chiao-tung University), M.A. (California), Ph.D. (California), Associate Professor

J.A. Lee, B.A., M.A. (Toronto), Ph.D. (Sunnybrook), Associate Professor
A. Szer, B.A., M.A. (Windsor) Ph.D. (York, Canada), Associate Professor
J. Tanner, B.Sc. (London), O.C. (London) Associate Professor
M.A., M.A. (Alberta) Associate Professor
S. Unger, B.A. (McGill), M.A., Ph.D. (York, Canada), Associate Professor

Discipline Representative: John A. Lee (287-7355)

Sociology is the scientific study of interaction among people, the social relations which they establish, and the social groups which they form. Sociology attempts to explain how society is ordered, how it functions, and what accounts for social cohesion, social stratification, social mobility, and social change. It studies the consequences of cooperation, competition, and conflict. Students may wish to take Sociology courses as a part of a general education, in anticipation of the usefulness of certain courses in future occupations or professions, or as part of a Specialist, Major or Minor Program.

The introductory course, SOC101, is intended to familiarize students with the distinctive theories, methods and questions of sociology as a part of a liberal education. In addition, the SOC101 course provides a minimum background of knowledge about sociology, and hence is a prerequisite to many of the more advanced courses.

Students who want to learn about certain areas of sociology which may be useful in later occupations or professions must consult faculty advisors who are prepared to assist them in course selection. There are some formal requirements for these special areas and they will not be designated on diplomas.

The faculty advisors for special areas of concentration are:

Social Work Prof. A. Szer
Urban Planning Prof. J. Hamagami
Education Prof. J.A. Lee

Students are strongly advised to take required courses in the Major and Specialist Program as early as possible. For example, SOC201, SOC250 and SOC255 should be taken during the second year, and SOC250 and SOC255 should be taken during the third year. Failure to do so may lead to timetable conflicts and could prolong the completion of the programme.

SPECIAL PROGRAMME IN SOCIOLOGY

Supervisor: J. Hamagami (287-7350)

The Programme requires completion of ten full-course equivalents as described below. No more than fourteen full-course equivalents in Sociology may be included in a four-year degree.

1. SOC201 Introduction to Sociology
2. SOC202 Methods in Social Research
3. SOC203 Classical Sociological Theory
4. SOC205/PSY Social Statistics
5. Two full-course equivalents at B-level in Sociology
6. SOC250 Contemporary Social Theory
7. One and a half full-course equivalents at C-level
8. One full-course equivalent at D-level
9. One other B or C-level full course in Sociology

MAJOR PROGRAMME IN SOCIOLOGY

Supervisor: J. Hamagami (287-7350)

The Programme requires completion of seven full-course equivalents in Sociology including:

1. SOC201 Introduction to Sociology
2. SOC202 Methods in Social Research
3. SOC203 Classical Sociological Theory
4. SOC205/PSY Social Statistics
5. Three and a half full-course equivalents in Sociology, at least one and a half of which must be at the C level

MINOR PROGRAMME IN SOCIOLOGY

Supervisor: J. Hamagami (287-7350)

The Programme requires completion of four full-course equivalents in Sociology including:

1. SOC201 Introduction to Sociology
2. Three full-course equivalents in Sociology, at least one of which must be at the C level

SOC201 Introduction to Sociology

An introduction to the basic concepts, principles and methods of sociology as a discipline for the study of society.

Major topics studied include: the nature of social groups, social processes, culture, socialization, deviant behaviour, population, community, stratification, social institutions and social change. Exclusion: SOC102 Session: Winter Day, Winter Evening, Summer Evening
J. Tanner / M. Hammond / M. Mckinseth

SOCIO205 Methods in Social Research

Telephone ID #: 28620163

The course will be divided into three basic units. It will start with a critical overview of the logic and methods of social scientific research. Topics will include the logic of research, research design and causal analysis, and methods of data collection. Once the fundamentals have been covered, an effort will be made to teach students how to "read" and critically evaluate research reports. Several studies will be examined in detail, and then students will be given the opportunity to do their own evaluations. The final goal will be to provide some practical experience in doing research. Using data not provided by the instructor, students will be taught how to interpret tables and to employ data to test hypotheses.

Exclusion: SOC200

Prerequisite: SOC201

Session: Winter Day

John A. Lee

SOCIO205 Structure of Interpersonal Relations

Telephone ID #: 28620163

A study of the patterns of interaction and influence in small groups. The course begins with a consideration of the problem of social order, i.e., how we constrain individual desires and induce people to act morally. We will also examine the problem of the "absent" using "Campus 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 "strange" and "other" interactions, with examples drawn from research on mental illness and gender. Other topics include status and power relations in small groups, social influence processes, and the social psychology of class, sex and race relations.

Exclusion: SOC202

Prerequisite: SOC201

Session: Winter Day

John A. Lee
SOCI0205Y Classic Sociological Theory
Telephone ID #: 2862059
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 classical philosophy from ancient 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, Toqueville, Durkheim, Weber, Simmel, and Freud. The significance of their theories for contemporary developments in sociology is emphasized.
Exclusion: SOC029
Prerequisite: SOC010Y
Session: Winter Day
J. L. de la Lumég

SOCI024Y Political Sociology
Telephone ID #: 2862046
This course will examine liberal pluralist and Marxist conceptions of power: the rise of democracy and social movements; war and warfare; race and politics.
Prerequisite: One full-course equivalent in Sociology
Session: Winter Day
R. O'Toole

SOCI025Y Urban Sociology
Telephone ID #: 2862058
A review of theories of urban genesis and urban form: the relationship of urbanization, industrialization and modernization, issues in urban living (housing, transportation, urban renewal, poverty, unemployment, etc.); urban social networks (ethnic and cultural heterogeneity, neighbourhood, community and other voluntary associations).
Prerequisite: SOC010Y
Session: Winter Day
R. O'Toole

SOCI0265Y Social Statistics
Telephone ID #: 2862003
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 lecture will include brief reviews of mathematics as the need arises. This course will cover the basic principles of sociological research.
Exclusion: ANTC35, ECON311, PSYB07, STAD22, SOC011
Prerequisite: SOC010Y
Session: Winter Day
S. Unger

SOCI027Y Social Class and Social Stratification
Telephone ID #: 2862103
Description and analysis of the nature of social stratification with emphasis on the bases of stratification; different theoretical views concerning stratification; the structure and function of stratification systems, social classes and associated behaviour; social mobility; and class conflict.
Exclusion: SOC030
Prerequisite: SOC010Y
Session: Winter Day
M. Hammond

SOCI028Y Sociology of the Family
Telephone ID #: 2862123
This course explores the family as a social institution, which shapes and at the same time 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 social factors such as class, gender, and race/ethnicity. The objectives of the course are to provide students with a sociological understanding of family life, to help them develop critical skills in analyzing these issues, and to gain insights into the implications of these issues.
Exclusion: SOC014, SOC02
Prerequisite: SOC010Y
Session: Winter Day
T. B. A.

SOCI029Y Sociology of Deviant Behaviour
Telephone ID #: 2862140
Analysis and analysis processes by which behaviour is defined and treated as criminal, deviant, disgusting, sick, or morally eccentric; the establishment and assessment of deviance, treatment and other control and deviant subcultures; and specific categories of deviance, such as: crimes against persons, "victimless crimes"; mental illness, sexual deviation and alcoholism.
Exclusion: SOC012
Prerequisite: SOC010Y
Session: Winter Day
W. O'Grady

SOCI030Y Ethnic and Race Relations
Telephone ID #: 2862206
This course will examine the structure and processes in a society made up of a variety of ethnic and racial groups. The focus will be on Canada. The course will study ethnic stratification, immigration, prejudice and discrimination, ethnic social mobility and ethnic conflict, assimilation and ethnic identity retention, and the problems of integration of society. Specific topics will include: conflict of generations, stereotyping, Canadian bilingualism and multiculturalism, and others.
Exclusion: SOC020
Prerequisite: SOC010Y
Session: Winter Day
W. Ingrid

SOCI035Y Comparative Social Structure
Telephone ID #: 2862253
An examination of the institutional structure in different societies in order to develop a better understanding of the effects of structural variations on human behaviour.
Exclusion: (SOC033Y)
Prerequisite: SOC010Y
Session: Winter Day
J. L. de la Lumég

SOCI036F Social Change
Telephone ID #: 2862253
This course will examine various aspects of the transformation of social life and consider various theories claiming to explain such transformation. Attention will be given to specific forms of social change in the present world.
Exclusion: (SOC035Y)
Prerequisite: SOC010Y
Session: Winter Day
J. L. de la Lumég

SOCI038Y Sociology of Education
Telephone ID #: 2862243
This course examines primary, secondary and higher educational institutions in modern industrial societies. Among the topics explored are social factors in educational achievement, accessibility, school culture, the role and professional status of teachers, and knowledge and power in learning situations.
Exclusion: (SOC024 and SOC025)
Prerequisite: SOC010Y
Session: Summer Day
T. B. A.

SOCI039Y Sociology of Work and Industry
Telephone ID #: 2862353
An introductory examination of some 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 organizational structure of the labour force; criminization of work; sources of job satisfaction and dissatisfaction; women and work; the impact of new technology; unions; employment; and unemployment; and professionalization. Two hours of lectures per week.
Exclusions: SOC037Y and SOC033Y
Prerequisite: SOC010Y
Session: Winter Day
J. Tanner

SOCI040Y Contemporary Social Theory
Telephone ID #: 2863503
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.
Exclusion: SOC033Y
Prerequisite: SOC010Y and one other 2.0-level full-course equivalent in Sociology
Session: Winter Day
R. O'Toole

SOCI050Y Sex, Sexuality and Society
Telephone ID #: 2863503
A sociological examination of human sexuality as a category of analysis, research and social experience.
The single most important influence on our behaviour is being male or female. Gender is built into the way our institutions are structured, the way we are socialized, and the way we access 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.
Exclusion: SOC035
Prerequisite: [SOC010Y AND SOC012Y] OR [permission of instructor]
Session: Summer Day
SOC17F Social Change in the Third World
Telephone (ID #: 2863173)
An examination of sociological studies of stratification, politics, religion, education, and kinship organization in countries of Africa, Asia, and Latin America.
Prerequisite: SOCA01Y & SOCB02FS & one or one-half other B-level full-course equivalents in Sociology
Session: Winter Day
P-C. Huong

SOC18F Sociology of Culture
Telephone (ID #: 2863183)
An examination of the production and reception of culture in various societies.
This course focuses on various historical and contemporary manifestations of folk, popular, mass and deviant cultures as well as on classical and contemporary art, music and literature.
Exclusion: (SOC187)
Prerequisite: SOCA01Y & SOCB03Y & one other B-level full-course equivalent in Sociology
Session: Winter Day
Y.-L. de Lamere

SOC21Y Sociology of Religion
Telephone (ID #: 2863216)
A sociological analysis of religion as a social institution.
Consideration of the problem of the definition of religion, analysis of major theoretical and empirical contributions to the field; and investigation of forces of religion in historical and contemporary contexts.
Exclusion: (SOC231)
Prerequisite: SOCA01Y & SOCB03Y & one other B-level full-course equivalent in Sociology
Session: Summer Evening
T.B.A.

SOC22F Qualitative Methods in Social Research
Telephone (ID #: 2863223)
An examination of the use of non-statistical methods for systematic analysis of social behaviour. Each student will develop a research project, identify the methodological and sociological methods by completing first-hand observations and analysis.
Prerequisite: SOCA01Y & two B-level full-course equivalents in Sociology
Session: Winter Day
P-C. Huong

SOC24Y Sociology of Mass Media and Communications
Telephone (ID #: 2863463)
A study of the social organization of the mass media - radio, TV, newspapers, magazines and trade publications - and of the effects of the contents of mass communications on the general public.
Exclusion: (SOC187)
Prerequisite: SOCA01Y
Session: Winter Day
J. Manigliant

SOC24FS Supervised Independent Research
Student research by field methods, survey analysis or library or archival research. Regain 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.
Prerequisite: Completion of at least fifteen full-course equivalents and permission of instructor.
Exclusion: SOCA01Y & SOCB03Y & SOC192
Session: Summer Evening, Winter Day, Winter Evening
Staff

SOC25F Advanced Seminar in Sociological Theory
Telephone (ID #: 2864423)
Special topics in contemporary social theory, designed as a final year course for students taking a Specialist Programme in Sociology.
Exclusion: SOCA040
Prerequisite: SOCA01Y & SOCB03Y
Session: Winter Day
R. O'Toole

SOC26FS Advanced Seminar on Issues in Contemporary Sociology
Telephone (ID #: 2864453)
The course will explore a number of current issues and controversies which engage the attention of sociologists according to their subdisciplinary specializations. It is intended to expose students to the most recent and newly emerging developments and scholarly discussions within the field. The course is designed as a final year course for students taking a Specialist Programme in Sociology.
Prerequisite: SOCA01Y & two B-level full-course equivalents in Sociology
Session: Winter Day
J. Unger

Spanish (B.A.)
Faculty List
Y. L. Leu, M.A., Ph.D. (Cornell); Professor Emeritus
R. Skyme, B.A., M.A., Ph.D. (Bristol); Professor
K. Giddens, B.A. (McGill), M.A. (U. of N.Y.), Ph.D. (Toronto); Senior Tutor

Discipline Representative: R. Skyme (287-7147)

Students enrolling in Spanish are offered a wide range of courses in the Spanish language.
Courses in Humanities, Linguistics, and in other languages and literatures, may prove valuable to those students as adjuncts to their plan of study or as an enrichment of their total programmes.
It is important that students enrolled in Spanish continue with the Spanish at the earliest possible date in order to arrange a coherent and appropriately scheduled Programme.

Major Programme in Spanish Language
Supervisor: R. Skyme (287-7147)
The Major Programme in Spanish Language is being phased out. Every reasonable effort will be made to allow students registered in this programme to complete it.

Minor Programme in Spanish
Supervisor: R. Skyme (287-7147)
For 200 level course equivalents, as follows:
SPA 101Y Introductory Spanish
SPA 102Y Introductory Language Practice
SPA 102F Intermediate Spanish Language Practice
SPAB207 Intermediate Spanish Language Practice  
Television ID #: 2872023  
This course concentrates on an intensive review of Spanish grammatical principles in the context of written exercises, compositions, and some translations.  
Exclusion: SPA220  
Prerequisite: OAC Spanish or Grade 13 Spanish or SPA01 and SPA02  
Session: Winter Day  
K. Goode  
Offered: 1996/97

SPAC208 Cultural Spanish  
Television ID #: 2872035  
A workshop in translation from and into Spanish.  
Translation of texts from such fields as advertising, commerce, entertainment, law, medicine, politics, science, and technology, and sport will broaden student's vocabulary and develop proficiency in handling a variety of non-literary modes of expression. This is based on weekly assignments, active participation in class discussion, and an examination.  
Exclusion: SPA220  
Prerequisite: SPA01  
R. Skyme  
Session: Winter Day  
Offered: 1996/97

SPAC211 Advanced Spanish Language Practice  
Television ID #: 2873010  
Intensive study of grammar and syntax, translation, composition, and oral practice.  
Detailed examination of the subjacent structures of Spanish grammar through intensive practice in translation from and into Spanish, composition, and conversation. Three hours per week in tutorial/lectures format.  
Exclusion: SPA320  
Prerequisite: SPA03 or SPA01  
R. Skyme  
Session: Winter Day  
Offered: 1996/97

SPAC215 Business Spanish  
Television ID #: 2873025  
The Spanish Language in a Business Context  
The course is designed primarily for students in Business/Management programmes but is open to all those interested in improving their language skills, particularly in a career in the commercial world. Class sessions will be practical in focus and consist of such activities as translation, correspondence, and individual and group oral presentations complemented, where possible, by audio-visual and computer material. The aim is to develop facility in the vocabulary and structures of that specialized use of the Spanish language.  
Prerequisitie: SPA201  
Session: Winter Day  
K. Goode

SPAC217 Literary Language  
Television ID #: 2873133  
The examination of Spanish literature in relation to the resources of language.  
The translation and analysis of texts and the challenge of creative composition offer students the opportunity to refine their reading and writing skills, by exploring the expressive flexibility of Spanish used in a variety of literary contexts. Two hours per week in a workshop format which requires active class participation.  
Exclusion: SPA221  
Prerequisite: SPA01 or SPA03  
Session: Winter Day  
R. Skyme  
Offered: 1998/99

SPAC222 Modern Hispanic Short Fiction  
Television ID #: 2873255  
Reading and discussion of modern short fiction from the Hispanic world.  
Examples of short fiction (cuencos, leyendas, poema en prosa) by a variety of modern Spanish and Latin American authors. Class discussions are held in Spanish and secretarial assignments, active class participation, and an examination.  
Exclusion: SPA4441  
Prerequisite: SPA03  
R. Skyme  
Offered: 1998/99

SPAC005-006 Supervised Reading  
Television ID #: 2873205  
Specific topics in Peninsular Spanish and Latin American literature, linguistics, and culture.  
These courses offer students an opportunity to pursue advanced independent study under the supervision of a faculty member in Spanish. Students should present to a prospective supervisor a written outline of a topic they wish to explore and a rationale for its choice. The topic should be clearly related to the student's previous work but should differ significantly in content and/or concentration from material studied in regular courses. Students and instructor will work out the course's objectives, methods of approach, content, bibliography, and timetable.  
Students are advised that they must obtain consent from the supervising instructor before registering for these courses. Interested students should contact the Supervisor of Studies for guidance.  
Exclusion: (SPAC202-036), (C07-C10), (C11-C13), SPA090  
Prerequisite: SPA201  
Session: Winter Day  
K. Goode and R. Skyme  
Offered: 1998/99

See also the following courses offered under Humanities:  
HUMB55 The Spanish Civil War: Fact to Fiction  
Courses Not Offered in 1997/98

SPAB041 Phonetics  
Exclusion: SPA223  
Prerequisitie: SPA01

SPAB125 History of the Spanish Language I  
Exclusion: SPA223  
Prerequisite: SPA04

SPAB141 The Civilization of Spain I  
Exclusion: (HUMB15), (HUMB009), (HUMB059), SPA220  
Prerequisite: SPA220

SPAB015 History of the Spanish Language II  
Exclusion: (HUMB12), SPA222; SPA425  
Prerequisite: SPA12

Statistics (B.Sc.)  
Please refer to the Physical Sciences/Scandinavian sections of the calendar, page 116 for a list of requirements. Please refer to the Physical Sciences/Scandinavian sections of the calendar, page 163 for a list of requirements and course outlines.
Visual and Performing Arts (B.A.)

Faculty List
G. Swann, M.A. Ph.D. (Toronto), Professor
M. Gurnee, M.A. (Victoria), Ph.D. (Toronto), Professor
M. S. Shaw, M.A. Ph.D. (Braymaw), Professor
L. Conway, M.A. (Columbia), Associate Professor
J. Major, G.T.C.L. (Trinity College of Music, London), M.A., Ph.D. (Toronto), Associate Professor
A. G. Pons, M.A., B.A. (McGill), Ph.D. (Toronto), Associate Professor
M. S. Schonberg, M.A., Ph.D. (Toronto), Associate Professor
R. Steinhoff, M.A. Ph.D. (Toronto), Associate Professor
K. Threl, M.A. Ph.D. (Wat), Associate Professor
L. Varga-Gerken, M.A. Ph.D. (Budapest), Associate Professor
W. Brown, B.A., B.A. Music, (Carleto), M.A. Ph.D. (Toronto), Assistant Professor
C. Cher, M.A. (McGill), M.A. (Toronto), Assistant Professor
C. Castell, Assistant Professor
P. Sperandio, M.A. Ph.D. (Toronto), Assistant Professor
D. Holman, B.F.A. (Kansas City Art Institute), Senior Tutor
J. Hethog, B.S. (Manitoba), Senior Tutor
T. Mars, Tutor
G. Baseler, M.A. (Toronto), Lecturer
S. Crawford, B.A. (Lambeth), Co-ordinator, Arts Administration and Lecturer
K. Wright, Technical Director

Discipline Representative: W. Brown (267.7594)

Arts administration, drama, music, and visual arts (art history and studio) together constitute Visual and Performing Arts. Recognizing that these disciplines cross the boundaries traditionally seen as separating one art form from another, Visual and Performing Arts involves exploration of the links and commonalities among the arts, in addition to offering courses and programmes in individual art areas.

Music, drama and art history at Scarborough are designed both for students who intend to pursue arts careers, and for interested students across the College. 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. In drama, practical courses acquaint students with all aspects of theatre production, technical as well as acting, and are complemented by History of Theatre courses and courses in dramatic literature of various countries and in special aspects of the history of theatre. Art history courses, most of which are open to all students at the A and B level, examine art through a variety of historical, theoretical and critical approaches. Studio and Arts Administration courses are normally for VPA programme students only; however, any student may take VPA101, but Why Is It Art?, and VPA110, Introduction to Arts Administration.

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 Concert Choir and Concert Band concerts and the public productions at the Langs Lee Bowes Theatre. Please contact the College's Cultural Affairs office or the VPA Discipline Representative.

VPA offers Major and Minor Programmes in Drama, Art History, Studio, and Music History. Students may enroll in one or more of these programmes, or combine a VPA Major or Minor with programmes in other disciplines and divisions.

VPA offers two Specialist Programmes, the requirements of which are listed on the following page. The Specialist (Co-operative) Programme in Arts Administration combines concentration in drama, music or visual art (art history or studio) with administrative courses. It is designed to train managers in the arts for both the private and non-profit sectors. Students must apply for admission to this programme (for general information on admission, contact Scarborough, please see the Co-operative Programme section).

The new Specialist Programme in Visual and Performing Arts provides opportunities to focus on one of the arts or to study them more broadly. The Programme is a basis for careers or further study for future practitioners in the arts, for gallery, and museum professionals for academics, and for those who want a thorough knowledge of history, theory and practice in the arts. Students must apply for admission to the programme, and may obtain details from the Discipline Representative. Students currently enrolled in specialist programmes who are closed (Arts, Fine Art History, Drama, Studio) may complete these programmes or consider enrolling in other VPA programmes. Those who are considering continuation to the graduate level and professional practice as visual artists should note that within the new Specialist Programme in Visual and Performing Arts, they may take the same sequence of studio courses that the Specialist Programme is Studio required.

Be sure to call the Programme Supervisors upon enrolling in any VPA programme(s), and consult them as you progress, for advice on courses and course sequences both suited to your needs and required for programme completion.

VPA course descriptions follow the programme descriptions below. Please note that certain courses, are listed: this indicates an emphasis on developing writing skills (for students at all levels of ability), and an opportunity to supplement work done in VPA202H or other forms of written practice.

SPECIALIST PROGRAMME IN VISUAL AND PERFORMING ARTS (B.A.)

Co-ordinator: W. Brown (267-7594)

Supervisors:
Arts Administration: J. Hoogstraten
Drama: M. Scheiberg
Music: W. Brown
Visual Art (history): R. Schellhoff
Visual Art (studio): J. Hoogstraten

This Programme provides training in the visual and performing arts in a university setting both for students who want a conceptual and historical understanding of the arts and the interrelationships among them, and those who wish primarily to develop their practical abilities. The core courses give a basic knowledge of music, visual art and drama shared by students in the Programme, as well as opportunities to develop writing and computing skills and to explore art concepts and theories. Beyond this core, options range from concentration in one area to work across all the arts.

All students in the Programme are expected to take advantage of the opportunities that exist on this campus to participate in arts events and clubs, as spectators and members and, where appropriate, as performers. Students should consult the initial requirement (VPA441Y, VPA442Y, and VPA443Y) in their first year. Admission to the Programme in the spring of 1988 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 those concentrating in Studio, portfolios.

VPA202H and VPA203H are to be taken in the second year. Requirement #2 may be fulfilled at any point in the first three years. VPA202H and VPA203H are for students in the final year of the Programme. Each student must work with one or more Supervisors upon enrolling in the Programme to determine a plan of study. Students must maintain a cumulative grade point average of 2.50 to remain in the Programme.

The Specialist Programme in Visual and Performing Arts requires the completion of 1.5 full-course equivalents within a twenty-four course degree as follows:

1. VPA441Y Introduction to Art
2. VPA442Y Introduction to Music
3. VPA443Y Experiencing the Live Theatre

VPA400Y Foundation Studies in Studio

VPA401Y Introduction to Arts

VPA402H Critical Thinking and Writing in the Arts

VPA403H Computers and the Arts

4. Theory and criticism component (1.5 full-course equivalents)

5. BA400/200S Philosophy of Art

6. BA401/305S Philosophy and Culture

7. VPA402/105S But Why Is It Art?

8. VPA404H Cultural Policy

9. VPA405H Seminar in Visual and Performing Arts

VPA401H Project in Visual and Performing Arts
SPECIALIST (CO-OPTATIVE) PROGRAMME IN ARTS ADMINISTRATION

Co-ordinator: Shelley Crawford
Supervisor of Studies: J. Hoogstraat

The Co-Operative Programme in Arts Administration is designed for students with an interest both in the arts and in business, management, and normally requires four to five years to complete. It combines academic study in a wide variety of subjects with practical work experience, preparing students for permanent employment as arts administrators, or for further studies in Business Administration, Museum Studies, Drama, Music, Art History or Studio.

Admission to the Programme

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

Note that enrollment in the programme is limited. Interviews are heldnormally in May for students who pass the initial screening. Admissions are granted on the basis of applicants' academic performance, background in one of the arts, and interest and potential ability in Arts Administration. 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 twenty academic courses (four years) of study and two work terms of four months each. Students complete 9 full-course equivalents in (A) the administrative field, 6 full-course equivalents in (B) the artistic field and 5 additional full-course equivalents from (C) as electives. In addition, at least 5 extra credits are awarded for the work terms.

A. Administrative Field of Study

The following 9 full-course equivalents are required:

- [Course Code] Introduction to Arts Administration
- [Course Code] Workshop to Arts Administration
- [Course Code] Cultural Policy
- [Course Code] Senior Seminar in Arts Administration
- [Course Code] Introduction to Economics
- [Course Code] Public Decision Making
- [Course Code] Introduction to Management
- [Course Code] Financial Accounting
- [Course Code] Managing People in Organizations

In addition, students are expected to use some of their elective field (C) to take further courses in administration. The following courses are recommended:

- [Course Code] How Computers are Used
- [Course Code] Price Theory
- [Course Code] Macroeconomic Theory and Policy
- [Course Code] Management Accounting
- [Course Code] Organizational Design in the Not-For-Profit Sector
- [Course Code] Principles of Marketing Management
- [Course Code] Human Resource Management
- [Course Code] Cost Control Systems
- [Course Code] Personnel Administration
- [Course Code] The Legal Environment of Business
- [Course Code] Negotiation
- [Course Code] Introduction to Industrial Relations

B. Artistic Field of Study

6 full-course equivalents from one of the following fields:

1. Drama

Required:
- [Course Code] An Introduction to the Practical Elements of Theatre
- [Course Code] The History of Theatre I: From Classical Antiquity to the Elizabethan and Jacobean Theatre
- [Course Code] The History of Theatre II: From the Restoration Theatre to the Theatre of the First Part of the 19th Century
- [Course Code] The History of Theatre III: Modern Theatre

1.5 full-course equivalents from the course listed under the Major Programme in Drama, Group A. and

1 full-course equivalent from the courses listed under the Major Programme in Drama, Group B.

II Art History

Required:
6 full-course equivalents in art history, as follows:

1. full-course equivalent at the A level.
2. 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.
3. full-course equivalent at the C level.

III Studio

Required:
- [Course Code] Foundation Studies in Studio

But Why Is It Art?

- [Course Code] Drawing I
- [Course Code] Drawing II
- [Course Code] Painting I

2.5 additional full-course equivalents in Studio of which one must be at the C-level.

* Students must meet the prerequisite for VPA607Y; an OAC in visual art or permission of instructor following a positive evaluation of a portfolio.

IV Music

Required:
- [Course Code] Introduction to Music
- [Course Code] Materials of Music I
- [Course Code] Materials of Music II

and
4 additional full-course equivalents from Music including at least 1.5 full-course equivalents from [Course Code] and 1.5 full-course equivalents from [Course Code] and [Course Code]

* Elective Field of Study

A further 5 full-course equivalents chosen in conjunction with the programme supervisor. The purpose of the elective field is to allow students some flexibility in shaping a degree programme to their interests and future needs. In making their choices students should remember that a working knowledge of a second language, especially French, may be particularly valuable. Students may choose one of the following options:

1. Courses chosen from a number of different subject areas with the aim of providing breadth to the student's programme.

2. A coherent selection of courses in one subject area.

3. Further concentration in the chosen artistic field (D), or in the administrative field (A). This option is particularly valuable for students wishing to complete the specialist requirements in their artistic field, or for students contemplating 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 anthropology and other related social sciences.

Students selecting either 2. or 3. will need to consult also with the programme supervisor in the chosen subject. The programme's supervising Arts Administration can supply details of appropriate programmes.
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 Administration Programme, they must be won by students in competition with all applicants for the position.

Performance on work terms will be evaluated by both employer and co-ordinator. Students must also submit at the end of each work term a report which integrates knowledge gained during the placement with academic study already completed (see VPAC111 and VPAC112).

Eligibility for Work Placements
To compete for work placement a student must be in good standing in the Programme and have completed at least ten full-course equivalents including:
- two full-course equivalents from the artistic field:
  - VPAB107 (Introduction to Arts Administration)
  - VPAB111 Workshop in Arts Administration
- MGTA207 (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. VPAC107 and VPAD107 are taken after the completion of the last 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 and complete a satisfactory evaluation for work term performance and work term reports in each full-course of study (at least two full-course equivalents and normally 2.50 during each study term) and 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 VPAB107, one full-course equivalent from the artistic field, MGTA207, MGT202, plus a foreign language course, or a further course in the artistic or administrative field.

The second year of study should consist of five full-course equivalents to include ECOA307Y and a balanced mixture of administrative and artistic courses.

Major Programme in Drama

**Supervisor:** M. Q. Schenck (G77-745)

A student must complete seven full-course equivalents in the area of Dramatic Literature and Theatre. The following courses comprise the core of the programme:

**VPAB207** The History of Theatre I: From Classical Antiquity to the Elizabethan and Jacobean Theatre

**VPAB210** The History of Theatre II: From the Restoration Theatre to the Theatre of the First Part of the 19th Century

**VPAB220** The History of Theatre III: Modern Theatre

**VPAB305** An Introduction to the Practical Elements of Theatre

**ENGB111** The World of the Play

In addition, the student must take three and a half full-course equivalents, two and a half from Group A and one from Group B. These must include at least one of VPAB208, VPAB215, VPAB230, VPAB235, VPAB304, and one of VPAB208, VPAB215, VPAB230, VPAB235, VPAB304 which may be taken unless permission is granted by the Supervisor of Studies.

**Group A**

**VPAB208** Theatre in Canada

**VPAB215** Introduction to Asian Theatrical Traditions

**VPAB230** Women in the Theatre

**VPAB235** The Arts and Nature of Comedy

**VPAB304** Exploring the Live Theatre

**VPAC310** The Victorian Theatre

**CLAC301** Selected Topics in Classical Literature

**ENGB110** Shakespeare

**ENGB217** Canadian Drama

**ENGB317** English Drama to 1642

**ENGB353** Drama Since 1960

**ENGB369** Studies in Major Writers

**ENGB379** Selected Topics

**FREV215** Text and Performance

**FREV315** Drama and History in Nineteenth Century Quebec

**FREK315** The Comic Tradition in France

**FREK305** British Theatre in the 20th Century

**HUM307** Introduction to the Cinema

**Group B**

**VPAB111** Technical Production

**VPAB215** Performance Art

**VPAC305** Intermediate Workshop in Theatre Performance

**VPAC311** Individual Studies in French Theatre and Drama in Translation

**VPAC312** Individual Studies in German Theatre and Drama in Translation

**VPAC320** Individual Studies in Russian Theatre and Drama in Translation

**VPAD107** Supervised Performance

**VPAD117** Supervised Drama Production

**VPAD217** Supervised Research

**Supervised Reading**

Students should check these courses for prerequisites.

**Prerequisites:** ten full-course equivalents

***Course content varies from year to year. For English D-level courses, students should check the listings in the Calendar to determine what precise courses may be pertinent to Drama in a given year. For CLAC111, consult the Supervisor of Studies for Classical Studies in drama who will regularly be chosen as a focus.***

Minor Programme in Drama

**Supervisor of Student:** M. Q. Schenck (G77-745)

Four full credits in Drama, including VPAB107 and at least two of VPAB208, VPAB215, VPAB230, VPAB235, VPAB304. One of the remaining credits must be on the C- or D-level. Students wishing to take VPAD307 must first take VPAC305.

Major Programme in Art History

**Supervisor:** R. Kiehlboff (G77-748)

Students must complete seven full-course equivalents at the A level:

1. Two full-course equivalents in History of Art at the A 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 VPAB211 and VPAB305, or another full-course equivalent from VPAC305 or another discipline, with the Supervisor’s approval.

2. One full-course equivalent in art history at the C level (or at the 30000 level on the St. George campus).

Minor Programme in Art History

**Supervisor:** R. Kiehlboff (G77-748)

Students must complete four full-course equivalents in art history:

1. One and one half full-course equivalents from VPAC401 - VPAC444

2. One and one half full-course equivalents from VPAC401 - VPAC459

3. One full-course equivalent in art history at the C- or D-level, chosen in consultation with the Supervisor.

Studio Programmes

The studio curriculum is built around the ideas that art is a means of expressing and understanding the human condition. It does not include courses in commercial or advertising art. The studio experience is intended to expand the student’s perception not only of what art is, but of why and how it is made and to develop the ability to understand and experience the challenges of contemporary art. Critical skills will expand along with practical skills.

Minor Programme in Studio

**Supervisor:** J. Hogstegren (G77-715)

This programme gives the student a full and broad exposure to both the various processes involved in making avant-garde developments in art criticism. It provides some preparation for teaching at the high school or elementary level.
One full-course equivalent in Supervised Performance (VPA99).  
Students may count a maximum of one and one-half full-course equivalents in performance towards the requirements of the Major Programme.

MINOR PROGRAMME IN MUSIC HISTORY  
Supervisor: W. Bowen (287-7194)  
Students are required to complete a total of four full-course equivalents in Music History.  
The four courses will be made up as follows:  
1. VPA500Y Foundation Studies in Studio Music  
2. Two other full-course equivalents in either drawing, painting or pre-making.  
3. One further full-course equivalent in the chosen area of study from the C or D level.

MAJOR PROGRAMME IN MUSIC HISTORY  
Supervisor: W. Bowen (287-7194)  
Students are required to complete a total of seven full-course equivalents in Music History as made up as follows:  
1. VPA500Y Introduction to Music VPA505F Materials of Music I  
2. VPA501G Materials of Music II  
3. Students who can demonstrate previous background equivalent to VPA500Y may be exempted from this course.  
4. Two full-course equivalents chosen from VPA486, VPA485, either VPA506, VPA507, or VPA508.  
5. Three one and one-half full-course equivalents from VPA450, VPA451, and VPA452.  
6. One additional full course in music except VPA499, VPA455.  
7. Students may be allowed to substitute another course from VPA, such as VPA470.  
In exceptional circumstances, music courses offered on the St. George campus may be accepted.  
Permission of the Supervisor is required.

Visual and Performing Arts Courses  
The courses for all the Visual and Performing Arts are listed below.  
They are divided into groups:

- General Courses (01-09)  
- Art Administration Courses (10-19)  
- Art History Courses (20-39)  
- Fine Arts Courses (40-99)  
- Music Courses (50-59)  
- Drama Courses (60-69)  

VPA497Y Critical Thinking and Writing in the Arts  
Telephone ID #: 40720245  
An introduction to important critical themes in the visual and performing arts and the particular problems of writing about the arts.  
Through careful reading and discussion of representative examples drawn from music, drama and visual art, students will be introduced to a wide variety of types of writing: performance, exhibition critiques, critical essays, scholarly articles, etc.  
This seminar will acquaint them with the styles and conventions of different types of writing as well as with a broad range of critical thinking within the separate arts and across conventional art-historical boundaries.  
Students will undertake frequent short writing assignments.  
These are designed to teach the skills of paraphrase and abstracting, and to give practice in a variety of written genres.  
Instruction will also be given in various types of research and data retrieval.  
Students will learn the particular problems of critical writing in the arts, how to give logical structure to their own writing, and how best to make it effective.

This course will meet every other week in alternation with VPA497Y, Computers and the Arts.  
This course is restricted to students in their second year in the Specialist Programme in Visual and Performing Arts, the Major Programme in Music History or the Major Programme in Music History.  
Additional students may be admitted by the instructor on the first day of classes.  
Session: Winter Day  
J. Moser  
Offered: 1996/97 and 1997/98

VPA490S8H Computers and the Arts  
Telephone ID #: 40720243  
An introduction to the use of computers in the visual and performing arts.  
The select student for this course broadly includes computer applications in the practice and study of drama, music, and the visual arts.  
Case studies and lecture demonstrations will illustrate current standards and future possibilities in the computerized handling of graphics, sounds, and texts.  
Individual and group projects will allow opportunities for practical experience under the supervision of members of the VPA faculty.

The class will meet every other week with VPA490S8H, Critical Thinking and Writing in the Arts.  
This course is restricted to students in their second year in the Specialist Programme in Music History or the Major Programme in Music History.  
Additional students may be admitted by the instructor on the first day of classes.  
Session: Winter Day  
W. Bowen  
Offered: 1996/97 and 1997/98

VPA490S8H First Nations Cultures in Canada  
Telephone ID #: 40720253  
A survey of the arts and cultures of the First Nations.  
The course will cover the traditions of the First Nations including religious beliefs, histories and the arts.  
It will feature aspects of various First Nations cultures in relation to recent cultural productions such as the novels of Thomas Head Raddall and the performance art of Rebecca Belmore.  
The intention is to place the traditions in relation to contemporary issues.  
Session: Summer Evening  
T.B.A.

General Courses Not Offered in 1997/98  
VPA490P8S The Body: Representations and Theories  
VPA90H Seminar in Visual and Performing Arts  
Prerequisites: 10 full-course equivalents from the Specialist Programme in VPA

VPA90H Project in Visual and Performing Arts  
Prerequisite: 10 full-course equivalents from the Specialist Programme in VPA

Arts Administration Courses  
VPA490Y Introduction to Arts Administration  
Telephone ID #: 40721063  
An introduction to the theory and practice of arts administration in Canada.  
The course will examine the content of the arts in society in general and in Canada in particular; the various elements of the cultural ecology in Canada and the history and current status of arts administration as a professional discipline; current issues and challenges facing the art; and specific management skills and knowledge required for today's arts manager including human resource management, marketing, fundraising and financial management.

The course will provide students in the Cooperative Programme in Arts Administration with a broad overview of the field in preparation for placement.  
It will also be of interest to students in other programmes and disciplines interested in the arts and its management in the non-profit sector.

The course will involve lectures, guest speakers, class discussion, readings and individual case studies, group projects and presentations, and individual assignments.

*Writing development course  
Excursion: (HUMB90, AADB01Y)  
Session: Winter Day  
S. Crawford  
Offered: 1996/97 and 1997/98
VPAB11H Workshop in Arts Administration
Telephone ID: 40722143
An introduction to practical Arts Administration skills.
This course is designed to supply students with the skills needed to function in the environments that they encounter on work placements. Instruction is provided in the form of seminars and workshops given by practicing members of the business and arts administration professions. There will be six (6) meetings in each term. Topics to be covered include: fundraising, marketing, granting bodies and grant applications, volunteer management, financial management, computer applications. Under the supervision of a faculty advisor students will prepare a major report, case study or essay based upon research in one of these areas.
Pre or Co-requisite: VPAB10Y (AADC01Y)
Session: Winter Day
Z. Crawford
Offered: 1999/09 and 1999/2000

AADC02Y Cultural Policy
Telephone ID: 40731063
An examination of culture and cultural policy in Canada and internationally from historical and contemporary perspectives.
The course will examine the history of cultural policy in Canada and internationally, differing views on the nature of culture and cultural policy and the role of government, critical contemporary issues and policy directions and the process of policy development.
The course will provide an in-depth examination of policy issues facing the cultural sector. The course will also be of interest to students in other programs and disciplines interested in the arts and in public policy and administration.
The course will involve lectures, guest speakers, class discussions. There will be readings and case studies, individual and group assignments, and independent readings and research.
Exclusion: (AADC01Y) or permission of instructor.
Session: Winter Day
G. Backer

VPAC1Y and VPAC1Z Arts Administration Co-Op Work Terms
The Arts Administration Work Terms form an integral part of the co-op curriculum. They are designed to provide a student with practical experience in an appropriate setting, thereby enhancing the student’s academic studies and developing professional and personal skills. To be eligible for a work term, a student must be in good standing in the Program. The work term report prepared by the student is a vital component of each placement experience. Course credit of 0.5 full course equivalent is awarded for each four month work period. Work term credits are in addition to the 20 full-course degree requirements and are graded on a Credit, No Credit system. There are no additional course fees for work terms.
Exclusion: (AADC02Y), (AADC01Y)

VPAD10Y Senior Seminar in Arts Administration
Telephone ID: 40741063
The course will provide a forum for students to deepen their insights into important current issues facing the arts and to develop critical analytical and decision-making skills.
The course builds on students’ prior exposure to arts administration theory and practice through coursework and work placements or work experience. Topics include: the changing social, economic, political and cultural context of the arts in Canada, and case studies to sharpen analytical and decision-making skills.
The course will draw heavily on the student’s own insights and experience. Classes will involve lectures, guest speakers, class discussions. There will be individual and group assignments and independent reading and research.
Students will complete a major research paper on an area of Arts Administration linked with their career goals and interests. Students are matched with a practicing arts administrator to facilitate their research on the paper.
Exclusion: (VPAC1Y), (AADDY1Y)
Session: Winter Day
G. Backer

Drama Courses
VPAD20F The History of Theatre I: From Classical Antiquity to the Elizabethan and Jacobean Theatre
Telephone ID: 40722033
A study of the non-literary aspects of theatre from Classical Greek theatre to the Elizabethan and Jacobean theatre.

Areas of concentration will include classical Greek and Roman theatre. Western European Medieval, Renaissance, Elizabethan and Jacobean traditions, the theatre of the Renaissance, including the commedia dell’arte, and the Elizabethan and Jacobean theatre.
Acquaintance with representative plays of the various periods will be required. Attention will also be paid to the socio-political environment of the theatre.
Lectures and tutorials. Text for the course will be History of the Theatre by Oscar Brockett. Other readings will be announced.
Exclusion: (DRAD10Y), (DRAD20Y), DRAD22Y, DRAI20Y
Session: Winter Day
M.Q. Schonberg
Offered: 1999/09

VPAD245 Theatre in Canada
Telephone ID: 40722453
Examination of the development of professional theatre in Canada from 1945 to the present. Special attention will be paid to the development of the major theatrical festivals, the regional theatre movement, the rise of alternative theatre, and current theatrical trends. Consideration will be given to the works of specific actors, directors, and designers.
Readings materials will be drawn from several sources and selected dramatic texts will be used to illustrate theatrical developments.
Exclusion: (DRAD10Y), (DRAD22Y), (DRAD24Y)
Session: Winter Day
P. Sporaksy
Offered: 1999/09

VPAD28Y The Art and Nature of Comedy
Telephone ID: 40722863
A study of the comic form in the theatre and film.
The student will read plays by the masters of comic drama and view films that are classics in the history of comic cinema. Representative theoretical 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.
Exclusion: (DRAD10Y)
Session: Winter Day
M.Q. Schonberg
Offered: 1999/09

VPAD29Y An Introduction to the Practical Elements of Theatre
Telephone ID: 40723503
An introductory practical course, concentrating on the non-literary aspects of theatre.
In the workshops the student will study basic acting techniques (including basic training in voice, movement, script interpretation, building a character), and will also be introduced to such technical skills as lighting, sound, makeup, set construction and painting. In addition, the student will be expected to participate at least on one production per term. Two two-hour workshops per week, plus additional time as necessary for rehearsals and production meetings, etc. Careful preparation for each workshop is essential.
Exclusion: (DRAD10Y), (DRAD25Y)
Session: Winter Day
T.R.A., P.C. Smith
Offered: 1999/09 and 1999/2000

VPAD35Y Technical Production
Telephone ID: 40723356
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, the student will also assume responsibility for some of the technical and production positions available in college productions.
Exclusion: (DRAD10Y), DRAD25Y PRAD10Y
Session: Winter Day
K. Wilson

VPAD37Y Experiencing the Live Theatre
Telephone ID: 40723963
Discovering the special nature of various forms of theatrical performance.
Students will study a range of theatrical productions, including opera, musicals, ballet, spoken word, contemporary drama, experimental theatre, and performance art. They will also meet with theatre professionals for post-performance discussions. The texts for all of the productions will be read in advance. Also included in the course will be a critical component, i.e. learning how to write reviews.
This is an evening course. Some of the sessions will involve attending performances at Toronto theatres.
**VPAC33V The Victorian Theatre**

Telephone ID: 40733363

An examination of the theatre and the drama in English from 1830 to 1880. The course traces the movements from romanticism towards realism and the adoption of many of the conventions of modern theatre. The emphasis is on the development of the modern playwright, including playwrights such as Augustin, the character of an author versus the audience, the growth of the music hall, and the influence of French and German drama in this period. Students will be asked to read plays and to participate in seminars on the various aspects of the course.

Exclusion: (DRA512Y) or (DRA524Y)

Prerequisites: None

Offered: 1998/99

**VPAD32F Introduction to Art History**

Telephone ID: 40743363

An introduction to the basic concepts and methods used in the study of art. Students are expected to participate in a major production generated by the class, as well as on specific assignments related to the work in the course. They will also work on projects according to their individual areas of interest.

Exclusion: (DRA130Y) or (DRA410Y)

Prerequisites: None

Session: First Term: Winter Day

Session: Second Term: Monday Night

M.C. Shaw / P. Sperandio / C. Smith

Offered: 1998/99

**VPAD430 Medieval Art**

Telephone ID: 40714353

A survey of European architecture, sculpture, painting, illumination, and minor arts from the late Roman Empire to the end of the Middle Ages. This course examines the origins of European artistic traditions in the early Christian, Byzantine, and Roman-Germanic world; how these traditions were influenced by cultural, Byzantine, Muslim and pagan forms; how they developed in an entirely new form of art in the Eastern Empire.

Exclusion: (DRA141Y) or (DRA143Y)

Prerequisites: None

Session: First Term: Winter Day

Session: Second Term: Monday Night

M.C. Shaw / P. Sperandio / C. Smith

Offered: 1998/99

**VPAD31F The History of Theatre**

Telephone ID: 40721363

An examination of the history of theatre from the ancient Greeks to the present day. The course is divided into three parts: the origins of theatre in ancient Greece, the development of theatre in the Middle Ages, and the modern theatre. Students will be asked to read plays and to participate in seminars on the various aspects of the course.

Exclusion: (DRA130Y) or (DRA410Y)

Prerequisites: None

Session: Winter Day

M. Perrin

Offered: 1998/99

**VPAD203-204 Supervised Reading Courses**

An advanced reading course for Drama students. Students wishing to take any of these courses should consult with the Supervisor of Students in conjunction with their individual needs.

Prerequisites: None

Offered: 1998/99

**VPAD253-256 Supervised Reading Courses**

An advanced reading course for Drama students. Students wishing to take any of these courses should consult with the Supervisor of Students in conjunction with their individual needs.

Prerequisites: None

Offered: 1998/99

**VPAD307 Introduction to Art History**

Telephone ID: 40743363

An introduction to the basic concepts and methods used in the study of art. Students are expected to participate in a major production generated by the class, as well as on specific assignments related to the work in the course. They will also work on projects according to their individual areas of interest.

Exclusion: (DRA130Y) or (DRA410Y)

Prerequisites: None

Session: Winter Day

M.C. Shaw / P. Sperandio / C. Smith

Offered: 1998/99

**VPAD308 Women in the Theatre**

Telephone ID: 40743363

An examination of the history of women in the theatre from the ancient Greeks to the present day. The course is divided into three parts: the origins of theatre in ancient Greece, the development of theatre in the Middle Ages, and the modern theatre. Students will be asked to read plays and to participate in seminars on the various aspects of the course.

Exclusion: (DRA130Y) or (DRA410Y)

Prerequisites: None

Session: Winter Day

M.C. Shaw / P. Sperandio / C. Smith

Offered: 1998/99

**VPAD403 Advanced Workshop: Performance and Directing**

Telephone ID: 40743363

A detailed examination of the directing of the stage in a studio setting. Students will be asked to read plays and to participate in seminars on the various aspects of the course.

Exclusion: (DRA410Y) or (DRA410Y)

Prerequisites: None

Session: First Term: Winter Day

Session: Second Term: Winter Day

M.C. Shaw / P. Sperandio / C. Smith

Offered: 1998/99
VPAS46F Baroque Painting in the Netherlands
Telephone ID #: 40724453
A study of painting and drawing in the Dutch Republic in the so-called Golden Age from 1600 - 1675.

VPAC45F The Art of Southeast Asia
Telephone ID #: 40725800
Art of the Southeast Asian peninsula including Cambodia and Thailand as well as Java and Borneo in Indonesia.

VPAC49F Gothic Architecture
Telephone ID #: 40742333
The development of Gothic architecture from the beginning of the twelfth century to the middle of the thirteenth century. Emphasis will be placed on Notre-Dame in Paris, the cathedrals of Chartres, Reims and Amiens, and a select number of monuments in England. A discussion of the sculptural programs of the said churches will be included. One two-hour lecture per week. Course texts include: O. von Simson, The Gothic Cathedral, Princeton 1962. Exclusions: FAVI588, FARC0585.

VPAC45 Art Around 1900
Telephone ID #: 40734443
An investigation of cultural exchanges at the turn of the century among such cities as New York, Barcelona, St. Petersburg, Vienna and Paris.

VPAC44F Victorian and Edwardian Decorative Arts
Telephone ID #: 40734443
The course focuses on the innovations of leading "designers" as well as on the design of furniture, books, fire, jewels and fashion, and other luxury products of the period. Exclusions: FARC1485

VPAC41F Art in the Ancient Near East
Telephone ID #: 40734443
An introduction to the art of the ancient civilizations of the Near East, from the oldest times to the end of the Persian Empire. Exclusions: FAVI588, FARC0585.
Students will discover, through assigned work and discussions, the many ways contemporary art is made. They will be required to explore a number of these processes through assignments.

Limited enrollment: 20 per section
Exclusion: FAS2110 (FAR2110)
Pre-requisites: VPA200 (FAR2200) and permission of instructor following a positive evaluation of a portfolio.
Session: Winter Day

VPA441F But Why is it Art?
Telephone ID #: 4071333
An introduction to the basic ideas behind recent art, how they developed, and why they changed.
"I don't know anything about art but I know what I like." Why do we feel uncomfortable when confronted with contemporary art? What are we supposed to be thinking and why? This course aims to develop a broad basic knowledge of the critical positions that led to major changes in recent art.
Exclusion: (FAR2195)
Session: Winter Day
J. Hoepfner

VPA460Y Sculpture Concepts
Telephone ID #: 4072603
The changes in sculpture in the 20th century, with an emphasis on contemporary art.
This course familiarizes the student with recent concepts and themes, primarily the shift from Modernism to Postmodernism, and the reasons for this shift. Current ways of exploring space, time, motion, and sound will be discussed.
The course will have a lecture-discussion format with each student presenting a discussion of the work of one contemporary artist. Each student will also be responsible for a number of working drawings dealing with assigned problems. Texts include Rosalind E. Krauss' Postscript in Modern Sculpture.
Limited enrollment: 15
Pre-requisites: VPA200 or permission of instructor
Session: Winter Day
J. Hoepfner
Not offered: 1998/99

VPA570F Drawing I
Telephone ID #: 4072703
An investigation of the basic approaches to drawing, including working from the figure and working with ideas.
Using the model and assignments, this course develops the student's ability to investigate the possibilities inherent in drawing. The student must complete a number of finished drawings, working both from the model and from assigned problems. Drawings from the model, assigned drawings, and a completed sketchbook will be due at the final portfolio for grading. All assigned work will be discussed in class by the instructor and other class members.
Limited enrollment: 20
Exclusion: FAS238 (FAR2570)
Pre-requisites: VPA400Y (FAR400Y)
Session: Winter Day
T. Mars

VPA5745S Drawing II
Telephone ID #: 4072745
A continuation of VPA570F with an increased emphasis on the student's ability to expand his/her personal understanding of the meaning of drawing.
Through the use of the model and assigned projects, the student will be required to explore a number of visual possibilities dealing with both objects and ideas. This course requires the student to work from the figure as well as work from concepts assigned to the class. These concepts will be discussed in class and will, with a complete sketchbook, make up the final portfolio for grading.
Limited enrollment: 20
Exclusion: FAS238 (FAR2570)
Pre-requisites: VPA400Y (FAR400Y)
Session: Winter Day
T. Mars

VPA575F Painting I
Telephone ID #: 4072753
An investigation of the possibilities of paints with an emphasis on the rich potential for expression of both personal and cultural imagery.
This course is designed to expose the student to current concepts in painting, primarily through a shift from Modernism to Postmodernism and its consequences. These changes will be investigated through an exploration of both media and imagery.
Work in the first term will be based on assignments. Work in the second term will consist of images and concepts developed by the individual student.
Discussions of work will be held regularly on both an individual and group level.
Students will be required to write four critiques on contemporary art.
Limited enrollment: 20
Exclusion: FAS238 (FAR2570)
Pre-requisites: VPA400Y (FAR400Y)
Session: Winter Day
J. Hoepfner

VPA578S Electronic Media
Telephone ID #: 4073703
An exploration of the possibilities of electronic media in the visual arts.
Students will engage in projects designed to develop skills in the conception and production of art using audio, video, computer graphics or video.
Pre-requisites: VPA400Y or permission of instructor
Session: Winter Day
T. Mars

VPA578F Introduction to Lithography
Telephone ID #: 4072783
An introduction to black and white stone lithography including a detailed investigation of materials and techniques.
The course will include demonstrations and lectures covering the technical aspects of the medium. Students will be required to pass a test on procedures and explore the medium by drawing, pressure inking, and printing several of their own lithographs. Discussions of work will be held regularly on both an individual and group level.
Limited enrollment: 10
Exclusion: (FAR2216)
Pre-requisites: VPA400Y (FAR400Y) or permission of instructor
Session: Winter Day
T. Mars

VPA579S Intermediate Lithography
Telephone ID #: 4072793
A continuation of VPA578F with emphasis on multi-color printing.
The course explores the technical aspects of working with colored inks. Students will be expected to work out visual ideas by drawing, printing, and printing a number of their own lithographs.
Individual and group critiques will be held to discuss assigned work.
Limited enrollment: 20
Exclusion: (FAR2216)
Pre-requisites: VPA400Y (FAR400Y) and permission of instructor
Session: Winter Day
T. Mars

VPA617F Studio
Telephone ID #: 4072799
A further opportunity for individual exploration.
This course is designed for mature students, through their portfolio and proposal, to have shown their ability to work with advanced materials. Students will provide their chosen instructor with a written proposal within the first week of
Music Courses

[NOTE: Most upper-level music courses assume non-majors students who have studied and enjoyed music, and all continuing students are encouraged and helped to acquire this skill as soon as possible. Students who need preparation are advised to take VPA1052.]

VPA1051 Introduction to Music
Telephone ID #: 407/8061
A study of the building materials, principles of design, and cultural significance of Western music from the Middle Ages to the present day.

Through examples drawn from a variety of periods, students are introduced to ideas of musical style and design. These concepts are of great help in listening to and understanding works by composers as different from each other as Machaut and McCartney, Dylan and Debussy or Berio and Reich. We look at the ways in which culture and society influence what composers write. Through

intelligent, directed listening and through discussion and writing, students learn how to approach each piece of music on its own terms and, at the same time, how to communicate their ideas to others. No previous musical training is required, but students with some musical experience should also find this introduction valuable. This is an introductory course.


VPA1050 Music in the Middle Ages Telephone ID #: 407/8063
A study of music in the period between the birth of Christ and the early 15th century. This course is a survey of the major forms of music, both sacred and secular, found in Europe during the Middle Ages. The theory of chant in the Roman Church, the secular song of the troubadours and trouveres, and the rise of polyphony are included. In addition, the aesthetic, philosophical, and sociological context for medieval music will be considered.

Exclusion: MUS101, MUS102
Prerequisite: VPA1051, VPA1052, or VPA1053 Session: Summer Evening T.B.A. / J. Mayo
Offered: 1996/99

VPA1052 Music in the Middle Ages Telephone ID #: 407/8062
A further opportunity for individual exploration in printmaking, painting, drawing, sculpture, or multi-media. This course is designed for mature students who, through their portfolio and proposal, have shown the ability to work without intensive guidance. Students will provide their own instructor with a written proposal within the first week of classes. This will state the intended area of investigation, the amount of work necessary to fulfill it, and a justification of the students' positions. They will also meet at appointed times to discuss work-in-progress. Content, method, and evaluation will be planned in cooperation with the instructor.

Students are advised that they must obtain consent from the supervising instructor before registering for this course. Limited enrolment: 3
Exclusion: FAS430, 431, 434, 435, 436, 437, 438, 439 (FARD24, FARD25, FARD90, FARD91)
Prerequisite: at least one half course in the area of intended study at the C-level Stage

Studio Courses Not Offered in 1997/98

VPA1051 - Women and Visual Art
Exclusion: (FAB907)
VPA1052 - Performance Art
Exclusion: FAS313, (FAB975)
VPA1053 - Painting III
Exclusion: FAS331, (FAB975), (FAB903)


Music Courses

[NOTE: Most upper-level music courses assume non-majors students who have studied and enjoyed music, and all continuing students are encouraged and helped to acquire this skill as soon as possible. Students who need preparation are advised to take VPA1052.]

VPA1051 Introduction to Music
Telephone ID #: 407/8061
A study of the building materials, principles of design, and cultural significance of Western music from the Middle Ages to the present day.

Through examples drawn from a variety of periods, students are introduced to ideas of musical style and design. These concepts are of great help in listening to and understanding works by composers as different from each other as Machaut and McCartney, Dylan and Debussy or Berio and Reich. We look at the ways in which culture and society influence what composers write. Through
**VPA8095 Music of the Classical Period**
Telephone ID: #40729553
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 origin of the Viennese classical style will be followed by a study of representative works by the three major composers of the classical period. The works will be studied in the context of the political, social and artistic changes which took place in Europe at this time.
Exclusion: (MUSB02)
Prerequisite: MUSB01 (MUSB30) It is strongly recommended that students with no background in elementary harmony take VPA8095 as a co- or prerequisite.
Session: Winter Day C. Clark
Not offered: 1998/99

**VPA8096 Music of the Twentieth Century**
Telephone ID: #40728553
Tracing the various trends in music in the present century from Debussy to the most recent electronic and multi-media presentations.
Selected compositions of Debussy, Schoenberg, and Stravinsky are analyzed in detail to demonstrate the nature of the revolution 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 growing commitment of some composers to totality, developments in twelve-tone serialism; the influence of jazz; electronic music; and the emergence of new aesthetic attitudes.
Exclusion: (MUSB03)
Prerequisite: VPA8090 (MUSB80) It is recommended that students with no background in elementary harmony take VPA8090 as a co- or prerequisite.
Session: Winter Day J. Mayo
Not offered: 1998/99

**VPA8098 Materials of Music II**
Telephone ID: #40729001
A continuation of VPA8091. Prerequisite: VPA8090 (MUSB80). A prerequisite course on the historical study of music. The course will deal with the development of notation and the composition of music. Session: Winter Day A. Rapport
Offered: 1998/99

**VPA8099 Music for the Theatre**
Telephone ID: #40729533
An introduction to how music is composed with other arts in the theatre.
Multi-media shows in the theatre are a popular form of entertainment. In a study of representative examples (including ballet, films, musicals, and operas) this course will focus on the relationship between the individual arts. The selected works will be considered not only for their musical and dramatic qualities, but also in terms of the creative process. In addition, the course will examine the production and performance traditions. Students will study audio-visual records and, where possible, live performances. No previous musical experience is required.
Exclusion: (MUSB13)
Session: Winter Day W. Bowes
Offered: 1998/99

**VPA8094 Jazz**
Telephone ID: #40729433
A history of jazz from its African and European roots to present day experiments. The history of jazz style approached through an examination of the work of representative performers. Social questions and the relationship between jazz and "classical" music will be discussed. Class participation may include performance by exceptionally well qualified students.
No previous musical experience is required.
Exclusion: (MUSB14)
Session: Winter Day, Summer Day J. Mom
Offered: 1998/99

**VPA8055 Musics and Gender**
Telephone ID: #40738333
An "alternative" survey of music.
We will explore the role of women musicians in the history of (primarily) Western music -- from music-making in medieval monasteries and Renaissance courts to 19th century concert platforms and modern pop scene; from popular music to women in art music. We will study representative examples of music written for women performers, and tap into an extensive repertory of important works written by women composers who have long remained in obscurity because of insensitivity, not quality, and because of the place of women in society throughout history. Topics and issues in current feminist and gay/lesbian musicology will also be addressed. Lecture and discussion topics will be supplemented by in-class reports and presentations.
Exclusion: IDUM207
Prerequisite: VPA809 or WSTA01
Session: Winter Day C. Clark
Not offered: 1998/99

**VPA8085 Beethoven**
Telephone ID: #40738553
A study of selected symphonies, quartets and sonatas by Ludwig van Beethoven. The course traces the changes in the composer's style and technique from his development under the influence of the Classic masters to his contribution to the new dramatic expression of the nineteenth century.
Prerequisite: VPA800 (MUSB09) and one course from the series VPA8090-VPA8805 (MUSB12-MUSB56)
Session: Winter Day C. Clark
Not offered: 1998/99

**VPA9001 Materials of Music III**
Telephone ID: #40739533
A continuation of VPA8090. Prerequisite: VPA8090 Session: Winter Day A. Rapport
Not offered: 1998/99

**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. Entrance for all participants is by audition. Credit students should pre-register but will not be admitted to the course unless granted permission of the Instructor during the first week of classes.

**VPA8011 Concert Choir I**
Telephone ID: #40717143
The practical study of a wide range of music from the choral repertoire. This course is a study of performance analysis. Members of Scarborough College Concert Choir, a chamber choir which performs composition drawn from the literature of the Renaissance to the present day. The choir gives public performances at each term.
In addition, credit students may be required to prepare works in conjunction with members of the instrumental performance programme. Previous experience is desirable but not essential. The course meets 2 hours per week for rehearsal with VPA891 and VPA927.
Exclusion: (MUSB20)
Prerequisite or Concurrency: Any non-performance course in Music. Session: Winter Day L. Whiting

**VPA8111 Concert Choir II**
Telephone ID: #40720143
A continuation of VPA8011. Exclusion: (MUSB20)
Prerequisite: VPA8011 (MUSB120)
Session: Winter Day L. Whiting

**VPA9011 Concert Choir III**
Telephone ID: #40739343
A continuation of VPA8011. Exclusion: (MUSB25)
Prerequisite: VPA8011 (MUSB121)
Session: Winter Day L. Whiting

**VPA9001 Concert Band I**
Telephone ID: #40732443
The practical study of ensemble performance.
Students work in an ensemble and present concerts for public performance within the College. The emphasis of the course is on the particular problems of ensemble performance and it assumes a basic competence on the chosen instrument. (NOTE: Females cannot be accommodated in ensembles except in very exceptional circumstances. Passers who need a credit in supervised performance must take the requirement of an upper-year programme and who are not admitted to the Concert Choir, should discuss possible alternatives with the programme supervisor.)
Each group will meet for 2 hours per week for rehearsal with VPA892 and VPA927.
Exclusion: (MUSB22)
Prerequisite or Concurrency: Any non-performance course in Music. Session: Winter Day J. Reynolds
Women's Studies (B.A.)

Faculty List
C. Bertrand-Jennings, D. L. & L. Paris, Ph.D. (Wayne State, Professor (French))
R. P. Thompson, M.A., Ph.D. (Toronto), Professor (Philosophy)
L. J. Atley, M.A. (McMaster), M.P.H., Ph.D. (Yale, Associate Professor and Chair (History))
J. Boddy, M.A. (McMaster), Ph.D. (UBC, Associate Professor (Anthropology))
L. Carney, M.A. (Columbia, Associate Professor (Fine Arts History))
M. C. Cuddy-Kean, M.A., Ph.D. (Toronto) Associate Professor (English))
P. C. Hing, B.A. (National Chung-ying University, M.A. (Chinese Cultural University), M.A., Ph.D. (California), Associate Professor (Sociology))
F. Iscovita, M.A., Ph.D. (York), Associate Professor (History))
M. E. Erwin, M.A., Ph.D. (Toronto), Associate Professor (History))
D. M. James, M.A. (Cornell), Ph.D. (Michigan), Associate Professor (Linguistics))
L. Lange, B.A., M.A. (McMaster), Ph.D. (Toronto), Associate Professor (Philosophy))
M. Latta, M.A., Ph.D. (Toronto), Associate Professor (Anthropology))
A. Sev'r, B.A., M.A. (Windsor), Ph.D. (York, Canada), Associate Professor (Sociology))
C. Goberman, B.A. (McMaster), M.E.S. (York, Lecturer)
J. Hoogstraten, B.A., B.A. (McMaster), Senior Tutor (Fine Arts Studies)
D. McCarthy, B.A. (Toronto), Senior Associate

Discipline Represented: C. Goberman
Women's Studies examines women's roles, women's work, and women's contributions past and present to society. Because men have been the more dominant sex, the bulk of past scholarship has reflected a male perspective on the world and has focused on the activities and experiences of men. Women's Studies seeks to redress this balance by providing a perspective on women's activities and experiences. This examination is interdisciplinary in nature, drawing upon work in such areas as Anthropology, Literature, Visual and Performing Arts, Geography, History, Linguistics, Philosophy, Psychology and Sociology. Women's Studies is thus concerned with such issues as women's work and women's role in the family in different times and different societies, the development, transmission and perpetuation of ideas and attitudes about women; women's contributions to culture; and the particular concerns and problems of women today.

Students preparing for a career in research, teaching, administration or social work are encouraged to consider enrolling in the Major or Minor Program in Women's Studies; since these careers involve consideration of women and women's issues, a background in Women's Studies would be a definite asset.

Supervisor of Major and Minor Programmes: D. James (277-7170)

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. WST105YS Current Research on Women's Issues
3. One and one-half full course equivalents from the list below:
   WST111Y Race, Class and Gender
   WST112YS Women: Issues of Violence and Safety
   WST113YS Women and the Media
   WST114YS Women and Development
   WST115YS Women and Environment
   WST116YS Women and Development
   WST117YS Women and Environment

4. Three and one-half full course equivalents from the list below (students should check course descriptions for prerequisites):
   ANTC101YS Anthropology of the Body
   ANTC111Y The Anthropology of Violence and Gender
   CLA352S Women in the Greek and Roman Worlds
Students must select four full-course equivalents as follows:

1. WST202Y Introduction to Women's Studies
2. WST205FS Current Research on Women's Issues
3. One full-course equivalent from list 3 in the major.
4. One and one-half further full course equivalents from lists 3 and 4 in the major.
5. Programme must include 1 P.C.E. at the C-level, from list 3 or 4.

WST101Y Introduction to Women's Studies
Telephone ID #: 31710153

An interdisciplinary course which brings the perspectives of philosophy, physics, psychological theory, sociology, psychology, history, social policy, sociology, anthropology, psychology, history, and literature into the study of the position of women in western civilization.

The goal of this course is to enable students not only to enter into the contemporary feminist debates but to understand the significance of these debates within the disciplines under discussion. Issues to be addressed include: the patriarchal foundation of our culture; the position of the family within the psychological dynamics of socialization; women's work in the home and the paid labour force; the transmission and perpetuation of images of women; and contemporary feminist issues including reproductive freedom, sexual politics, violence against women, and pornography.

Tutorial or practical required.

Exclusion: JHS200Y, NEW200Y
Session: Winter Evening
Co-ordinator: C. G. Barber

WST120S Women: Issues of Violence and Safety
Telephone ID #: 31721255
An analysis of violence against women and of current and potential initiatives toward creating safety.

The first part of the course will examine aspects of public and private violence against women such as "wife assault," elder abuse, sexual harassment and other forms of assault within a historical, cultural and structural context. The second part will explore initiatives toward creating communities safer, including strategies for prevention and education.

Exclusion: WST205Y or permission of instructor.
Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

WST125F Women and the Media
Telephone ID #: 31721333
An interdisciplinary approach to feminist critiques of the media.

Summer Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

WST125S Current Research on Women's Issues
Telephone ID #: 31720553
An examination of topical and critical research in women's issues from a cross-cultural and interdisciplinary perspective.

This course will provide practice in critical analysis of contemporary issues as they affect women globally. Issues will be drawn from a range of disciplines, including history, sociology, education, literature, the arts and sciences.

Exclusion: NEW201H, NEW205Y, NEW234H, NEW235H, if sufficient overlap in content is present.
Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

WST101Y Race, Class and Gender
Telephone ID #: 31721165
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.

Exclusion: NEW231H, NEW233H, NEW234H, if sufficient overlap in content is present.
Session: Winter Day
Co-ordinator: G. Razi-Rahimi

WST125S Women and the Media
Telephone ID #: 31721255
An analysis of violence against women and of current and potential initiatives toward creating safety.

The first part of the course will examine aspects of public and private violence against women such as "wife assault," elder abuse, sexual harassment and other forms of assault within a historical, cultural and structural context. The second part will explore initiatives toward creating communities safer, including strategies for prevention and education.

Exclusion: WST205Y or permission of instructor.
Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

WST125F Women and the Media
Telephone ID #: 31721333
An interdisciplinary approach to feminist critiques of the media.

Summer Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

WST125S Current Research on Women's Issues
Telephone ID #: 31720553
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Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

WST125F Women and the Media
Telephone ID #: 31721333
An interdisciplinary approach to feminist critiques of the media.

Summer Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

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Session: Winter Day
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Exclusion: WST205Y or permission of instructor.
Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

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An interdisciplinary approach to feminist critiques of the media.

Summer Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

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Exclusion: WST205Y or permission of instructor.
Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

WST125F Women and the Media
Telephone ID #: 31721333
An interdisciplinary approach to feminist critiques of the media.

Summer Session: Winter Evening
Co-ordinator: G. Razi-Rahimi

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Exclusion: NEW201H, NEW205Y, NEW234H, NEW235H, if sufficient overlap in content is present.
Session: Winter Evening
Co-ordinator: G. Razi-Rahimi
Admissions, Awards and Academic Regulations

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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-enrol at the Office of the Registrar, Room S-415. This is 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-enrolment, telephone (416) 287-7529. See also the section on Overall Standing.

Admissions

The following is a brief description of admission policies and procedures. Full information may be obtained from:

Admissions and Awards
University of Toronto
315 Bloor St. West
Toronto, Ontario, Canada M5S 1A3

Enquiries:
Admissions and Awards
(416) 978-2190
askadm@utoronto.ca

Admissions and Awards
(416) 287-7529
askadm@utoronto.ca

(416) 287-7563
lsrinfo@utoronto.ca

http://www.utoronto.ca

General Admission Requirements to University of Toronto at Scarborough for 1997-98

Candidates Applying from Ontario Secondary Schools
- Applicants must be eligible to receive the Ontario Secondary School Diploma (OSSD).
- Applicants must present at least six (6) Ontario Academic Courses (OACs).
- One credit must be OAC English I/L.
- Applicants must present credits to satisfy any prerequisites of specific courses or specific programs in which they intend to enrol.
- Applicants must satisfy English Facility Requirements (Applicants may request the English Facility Requirements brochure from Admissions and Awards. Telephone (416) 978-2190.)

Prerequisites
- Students should choose OACs which will fulfill the prerequisites for university courses they intend to take. These prerequisites are listed at the end of this section and after the description of each course in the Calendar.

1. Proof of adequate English facility is required of all applicants except for those: (i) whose first language is English; (ii) who have studied full-time for at least four years in an English language school system located in a country where the first language is English; or (iii) whose first language is French and have attended for at least four years in the Canadian school system.
2. Applicants who are required to present proof of English facility shall be exempt from the normal admission requirement of having to present the OAC English I or equivalent. Such applicants are, however, encouraged to include English in their preparation for university. If OAC English I or an equivalent course is completed as an extra credit, applicants will not be penalized by having the result included in their admission average if the grade is low.
3. One of the following tests and scores will be accepted by the University of Toronto as satisfactory proof of English facility:
   - Certificate of Proficiency in English Test (COPE). The requirement is a minimum total score of 5 with no zero in any skill area and a score of no less than 2 in writing.
   - The Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE). The requirement is a minimum score of 600 on the TOEFL test with a score of at least 5.0 on the TWE test. Both tests must be written. Alternatively, a TOEFL score may be presented with a minimum score of 200 on the TOEFL writing test.
   - Michigan English Language Assessment Battery. The requirement is a minimum overall score of 72.
   - The International English Language Testing System. Applicants are required to have scored overall band of 7 and no band less than 5.

Note: Before 1972, 7 Grade 13 credits were required.

Admission by Equivalent Certificate
- The certificates listed below are considered acceptable for admission consideration.

Other Canadian Provinces
Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia, Prince Edward Island, Saskatchewan - Grade 13
Quebec - 12 academic C.E.G.E.P. courses

Note: Those who completed their high school studies in Canada in 1985 or earlier should contact Admissions and Awards before applying to check entrance requirements.

Admission with Transfer Credit
Students who have completed work at other universities and are eligible for transfer credit are considered for admission with advanced standing credit. Acceptance of transfer credits depends 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. In effect, 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.

Note that students transferring to the University of Toronto will be required to complete at least half of their degree credits and half of their program requirements as University of Toronto at Scarborough students. Students transferring from other divisions of the University of Toronto are exempt from this degree requirement. Limits on transfer credits upon admission still apply. Students must consult with the Program Supervisor before taking courses required for the program at another campus.

Ontario Colleges of Applied Arts and Technology
- Candidates who have completed a one-year CAAT (Community, Continuing, Applied, Academic and Technical) program, or one year of a two- or three-year CAAT program are not eligible for consideration; for admission to the first university year unless they have also completed the full academic secondary school year of the jurisdiction in which they attended secondary school.
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.

Candidates who have completed a three-year CAAT programme are eligible to be considered for admission with up to five transfer credits.

International baccalaureate candidates who have completed the Diploma with at least 13 points from the higher 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.

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 three (preferred) SAT II: Subject Tests will be considered. ACT and/or CERS Advanced Placement Examinations will also be considered.

Applicants may request consideration for transfer credit for AP examinations.

Other Countries/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.

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 Winter Session, and
2. have been resident in Ontario as a Canadian citizen or permanent resident for a minimum of twelve months by the admission date,
3. achieve high standing in one Pre-university course, or
4. achieve high standing in two OACs completed after the student is 21 years old. OAC English must be English OAC 1.

Students must receive permission from Admissions and Awards to qualify for consideration using these options. Therefore, consult before expiring in any of these courses. Students who wish to prepare for certain academic 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 may be officially recognized as a Convention Refugee or Permanent Resident at the time of application 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) 978-2415.

Senior Citizens
Canadian citizens or permanent residents of Canada who are at least 65 years of age by the first day of term, may apply for admission as 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 Scarborouh but not proceeding towards a degree. Most Special Students have completed degree studies and are taking further courses for their own purposes.

Special Students on a Letter of Permission (Visa/Study)
Students with valid Letters of Permission from other accredited North American universities may register directly at U of T at Scarborouh, taking courses for transfer credit at their own university. Visiting Student status does not imply acceptance as a student proceeding towards a degree as a Special Student. Call (416) 287-7529 for applications.

Application Procedures
Students currently enrolled in an Ontario secondary school should submit applications through their school's guidance office.

All other applicants should request application forms from Admissions and Awards, giving full details of their educational background and standing.

The specific average or standing required for admission varies from year to year. Students are selected by taking into consideration a wide range of criteria including secondary school marks, distribution of subjects taken, performance in subjects relevant to the academic programme selected, results in senior division prerequisites, and supplementary information obtained through the Confirmation Form.

Applications will be considered from candidates whose qualifications do not meet the normal requirements, but such candidates must offer written evidence of exceptional ability, or of extenuating circumstances. Applicants who matriculated prior to the current year are advised to telephone or write to Admissions and Awards for information.

Possession of minimum requirements does not guarantee acceptance. Because of limitation of space, preference will be given to applicants with the best qualifications. The University of Toronto reserves the right to determine whether or not credentials of degree-granting institutions in Ontario meet the standards for admission to University of Toronto programs.

Application Deadlines
Applications are strongly advised to submit application forms well in advance of the following deadlines:

Admission to the 1997 Summer Session:
Term I (beginning in May) - March 15
Term II (beginning in July) - May 15
(Note: Visiting Students applying from other universities may be considered after these dates. Telephone (416) 287-7529 to inquire.)

Admission to the 1997 Winter Session:
(begining in September)
Full-time study - April 1
Part-time study - June 1

Notes:
- Applications will not be accepted for entry to the January term.
- Out-of-Canada applicants should apply at least six weeks before these dates.
- Applicants to the Co-operative Programmes should apply early, by March 1, to allow sufficient time to receive, complete, and return the special Co-op Programmes application form by April 15.
Secondary School Prerequisites

The courses below have OAC prerequisites. Students may begin the study of many languages without OAC preparation. Students who already have language skills should contact the Supervisor of Studies about courses appropriate to their level of competence. Note that some programmes have implicit OAC requirements. For example, several of the Specialist Programmes in Management and Economics require MATH 12 or MATH 11 which in turn requires the OACs in mathematics listed below. See also the chart that follows on prerequisites by programme.

Applicants with qualifications outside Ontario must present "equivalent" prerequisites. For example, in place of OAC Calculus, applicants must have completed, or must take, a full credit secondary school course (or equivalent) in calculus which covers the geometric notion of a limit, the differentiation and integration of elementary functions to provide them with a geometric grasp of differentiation and integration. Consult with the Supervisor of Studies for Mathematics.

<table>
<thead>
<tr>
<th>Scarborough course</th>
<th>OAC Prerequisite(s)</th>
<th>Recommended course(s)</th>
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<tbody>
<tr>
<td>Chemistry A2/2Y</td>
<td>Chemistry and Calculus</td>
<td></td>
</tr>
<tr>
<td>Computer Science A5/1H</td>
<td>Calculus, and one of Algebra &amp; Geometry or Finite Mathematics</td>
<td></td>
</tr>
<tr>
<td>Computer Science A5/1H</td>
<td>Algebra &amp; Geometry and Calculus</td>
<td></td>
</tr>
<tr>
<td>French A1/1Y</td>
<td>French</td>
<td></td>
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<tr>
<td>Environmental Science A5/6H</td>
<td>Mathematics and Science courses</td>
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<tr>
<td>Mathematics A5/4Y</td>
<td>Algebra &amp; Geometry and Calculus</td>
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<tr>
<td>Mathematics A5/5Y</td>
<td>Calculus, and one of Algebra &amp; Geometry or Finite Mathematics</td>
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<tr>
<td>Mathematics A5/5Y</td>
<td>Calculus, and one of Algebra &amp; Geometry or Finite Mathematics</td>
<td></td>
</tr>
<tr>
<td>Physics A1/1H</td>
<td>Calculus, and one of Algebra &amp; Geometry or Finite Mathematics</td>
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<tr>
<td>Physics A2/1H</td>
<td>Calculus, Physics, and one of Algebra &amp; Geometry or Finite Mathematics</td>
<td></td>
</tr>
<tr>
<td>Physics A3/1H</td>
<td>Calculus, and one of Algebra &amp; Geometry or Finite Mathematics</td>
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</tr>
<tr>
<td>Visual Art A5/0Y</td>
<td>Visual Art</td>
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</tbody>
</table>
### Awards

Unless specified, the following awards do not require an application; all UOTT at Scarborough undergraduate degree students with excellent academic standing are considered. Where deadlines are not specified, check in Room S415 and check the "Scholarships" bulletin board in the Meeting Place. The official award records are on file in the Office of the Registrar (Room S415). Scarborough students are also eligible for consideration for other general University of Toronto scholarships and bursaries in addition to the awards listed below. Students should check the "Awards" folder in Room S415. Inquiries (416) 287-7329.

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 a degree status. Students who have been awarded a scholarship which is based on enrollment in a particular program of study must continue in that program to receive the award. 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 the awards at the following spring convocation in competition with the spring graduates.

**Admission awards**

A substantial number of admission scholarships are awarded each year on the basis of excellent academic standing. Successful applicants will be notified at the time they receive an offer of admission to the University.

**University of Toronto Scholarships Programme - National Scholarships**

The National Scholarship Programme recognizes the very best students from secondary schools across Canada. Each secondary school is invited to nominate its most outstanding graduating-year student to receive a National Book Award. The student is then eligible for consideration for a University of Toronto National Admissions Scholarship. Five National Scholarships are awarded each year. The scholarships have a value of $5,000 per year for four years, and include free residence for the first year. Finalists in the National Scholarship competition will receive Arbor Scholarships. Three awards are also
renewable but carry a value of $1,000 per year (96-97). Ontario secondary school students should contact their seniors guidance offices for scholarship applications and information. All other students should write to University of Toronto, Admissions and Awards, 115 Bloor St. W., Toronto, Ontario, M5S 1A3.

University of Toronto Scholars Programme - Admission Scholarships
The University of Toronto will honour the most outstanding admission applicants as University of Toronto Scholars. These scholarships, which have a value of $3,000 (96-97), may be held in any programme of study at the University, and in conjunction with the faculty or college admission awards. Approximately the top 120 students entering the University may expect to be selected as University of Toronto Scholars.

Plumptre Admission Scholarship
Awarded to the student entering first year whose achievement in secondary school is considered to be the most outstanding. The scholarship is awarded in memory of Professor A. F. Wynne Plumptre, a former principal of University of Toronto at Scarborough. (96-97 value $3,000)

Frederick A. Urquhart Admission Scholarship
Eight scholarships (97-98 value $2,500) are awarded to students entering first year on the basis of exceptional academic achievement in secondary school. The scholarships are named in memory of Professor Emeritus F.A. Urquhart, a distinguished University of Toronto scholar.

University of Toronto at Scarborough Admission Scholarships
Approximately forty scholarships are awarded to students on the basis of excellent academic achievement. (96-97 Value: Most are $1,500)

University of Toronto at Scarborough Alumni Admission Awards
Awarded to students applying directly from secondary school who have demonstrated significant contribution to community service work and who have high academic achievement. Applications will be mailed to schools in the Scarborough area. Other applicants may request an application from the Office of the Registrar, Telephone (416) 287-7529. (Value, 3 awards st. ations.) Deadline: April 30

John Ball Alumni Entrance Scholarship
Awarded to a student entering first year on the basis of academic excellence in the secondary school programme. (Value: $2,000)

Warner-Lambert Admission Scholarship
Awarded to a student entering first year on the basis of academic excellence in the secondary school programme. (Value: $1,000)

Ting Sun Tang Memorial Entrance Scholarship
Awarded to a student on the basis of excellent academic achievement in the secondary school programme. (Value: $750)

Donated by the Federation of Chinese Canadian Professionals (Ontario Education Foundation).

In-course awards
University of Toronto Scholars Programme - In Course Scholarships
The University will recognize outstanding undergraduates completing 1st, 2nd or 3rd year as University of Toronto Scholars.

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 Black 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. Black, 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. Application required. Deadline: May 30

University of Toronto at Scarborough Student Counsellor Prize
Awarded to a student in good academic standing entering the second, third or fourth year who has made an outstanding contribution to the Academic, Social or Cultural life of U of T at Scarborough. Application or nomination required. Deadline: September 30

John E. Foisy 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 extra-curricular student life on campus. Sponsored by the University of Toronto Alumni Association. Nomination required.

Stanley Kosta Todorov Scholarships
Awarded on the basis of academic excellence to one or more students registered in a Life Sciences or Physical Sciences programme which leads to a Bachelor of Science degree.

Norman F. Brown Memorial Award in Humanities
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 Hudson's Bay Company Scholarship
Awarded to the student who has demonstrated outstanding academic achievement at the end of third year.

Gilchrist 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 (including Co-op and joint programmes)
3. One prize will be awarded to a student entering the fourth year of a Specialist programme in Environmental Sciences (including Co-op and Environmental Earth Sciences)

Preference will be given to students who have completed at least 10 of the F.C.E.s 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

The University of Toronto Women's Association Lake Dore Memorial Scholarship
Awarded to a student on the basis of excellent academic achievement in the third year of a four year undergraduate degree programme.
McLeod 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 selected for course work and nominated by instructors. However, students 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 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 Jahnston Scholarship
Awarded to the student enrolled in a major or specialist program(s) in a modern language who, on entering the third or fourth year, has the highest grade point average in courses taken to satisfy the program(s). (minimum gpa 3.2).

Peter Moore Prize in French
Awarded for the best undergraduate essay in French drama. Essays will be nominated by instructors.

Arvis 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 Field Memorial Prize in Psychology
Awarded to a full-time student entering the fourth year of the Bachelor of Arts in Psychology, on the basis of excellent academic achievement.

The Katharine Hegel Philosophy Prize
Awarded to the student in the Major or Specialist Programme in Philosophy before the beginning of the third or fourth year of study whose grade and performance in Philosophy, in the opinion of the Faculty in Philosophy, have best demonstrated excellence in the subject.

Margason Scholarship in English
Awarded to an outstanding student who has completed the second year of the Major or Specialist Programme in English.

Leigha Lee Brownie Scholarship in Drama
Awarded to a student displaying outstanding ability in the dramatic arts who is either continuing in a Drama Programme at U of T at Scarborough or is graduating and has registered in an advanced training programme in the dramatic arts.

University of Toronto at Scarborough Physics and Astronomy Prize
(This award is currently under review.)

Toronto Palermo Leo Club Prize in Physical Sciences
Awarded to a student enrolled in the Division of Physical Sciences' Early Teacher Project (open to students enrolled in Physical Sciences Scarborough programmes) on the basis of academic achievement (minimum 3.3 gpa).

Toronto Palermo 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. Peak 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 BIOA00Y. Emphasis will be placed on the laboratory component of the course and overall contributions 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.

Brian David Racicot Memorial Scholarship in Management
Awarded to at least 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 3.3B+). Application required. Deadline June 1

Arthur London 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 Physics and Astronomy Prize
Application required. Deadline June 1

Management Accounting Student of Merit Scholarship
Awarded to the student who has completed the third year of a Specialist Programme in Management and Economics, and who has completed the following courses with the highest average grade: MGTO30H, MGTO30Y, MGTO30Z, MGTO30L, MGTO30J. Donation by the Society of Management Accountants of Ontario

North Scarborough Rotary Club Scholarships
One scholarship is awarded to a student in a Management Programme and one is awarded to a student in a Political Science Programme. Candidates must be Canadian citizens or Permanent Residents, graduates of a City of Scarborough secondary school and have achieved a cumulative grade point average of at least 3.3 (B+). Application required. Deadline September 30

The Harvey Babbit Award in Financial Accounting
Awarded to a student completing the third year of the Specialist Programmes in Management and Management and Economics with the highest grade (at least A minus) in MGTO30Y. Donated by HPNG.

Warner-Lambert Arts Administration Scholarships
One scholarship will be awarded to a student enrolled in the Co-operative Programme in Arts Administration who has demonstrated outstanding academic achievement. One scholarship will be awarded to a student enrolled in the Co-operative Programme in Arts Administration who has demonstrated outstanding achievement on the work placement.

SKF Canada International Development Scholarships
Awarded to students enrolled in the Co-operative Programme in International Development Studies who have demonstrated outstanding academic achievement.

Canadian Society for Chemistry Silver Medal
Awarded to a 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 Award
Awarded to the most improved student entering the fourth 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).

Rohm & Haas Canada Scholarship in Chemistry
Awarded to an outstanding student 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.

Andrew Tung Memorial Scholarship in Sinco-Canadian Studies
Awarded to the undergraduate, whose academic performance and extracurricular activities in the area of Chinese studies and Sinco-Canadian studies best exhibit commitment to Chinese-Canadian cultural and economic ties.

Samuel Beatty 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, U of T at Scarborough) on the basis of academic performance and financial need.

APUS Scholarships
Part-time undergraduate students who (a) have completed at least ten full courses, of which four are in an area of specialization, and (b) have obtained a B average (G.P.A. of 3.0) in the most recent five full courses, may be considered. Application required.

APUS Scholarships
Part-time undergraduate students who (a) have completed at least ten full courses with a B average (G.P.A. of 3.0) in the last five full courses, and (b) have demonstrated outstanding achievement or commitment to academic performance, may be considered. Application required.
226 Awards

Joel Haig Scholastic Awards
Part-time students who have a G.P.A. of at least 3.3 in the most recent five courses who have completed the majority of their courses on a part-time basis may be considered. Sponsored by APUS. Application required.

Graduation prizes
Graduation Prizes in Humanities, Life Sciences, Management & Economics, Physical Sciences and Social Sciences
Awarded to the outstanding member of the graduating class in each of those areas of scholarship.

All Tayeb Prize in Geography
Awarded to the outstanding student graduating in Geography in a Major or Specialist program.

The Irwin Publishing Prize in Classical Studies
Awarded to the outstanding member of the graduating class who has completed the Major Program in Classical Studies.

Forsyth Prize in Psychology
Awarded to the outstanding member of the graduating class who has completed the Specialist Program in Psychology.

CGA Ontario Award for Excellence
Awarded to an outstanding student completing a Management program who has displayed excellent achievement in accounting with grades not less than A minus in each of MGTB03H1, MGTB09H1 and MGTB20Y1.

Robert James Prize in Sociology
Awarded to the outstanding student graduating in Sociology in a Major or Specialist program.

Ciba-Gadry Award in Neurosciences
Awarded to a student graduating with a four-year degree who has completed either the Neuroscience Specialist or Major Program, who in the judgement of the Faculty, has demonstrated the most outstanding academic and laboratory performance.

The Society of Chemical Industry Student of Merit Award
Awarded to a member of the graduating class who has completed a Specialist program in chemistry and achieved the highest standing in the final year.

(Minimum GPA of 3.0759%; has completed the degree within the normal number of years)

Orpheus Prize in Humanities
Awarded to an outstanding member of the graduating class who has completed either the College Programme in the Humanities, the Major Program in Music, History and Literature, or the Specialist Programme in the Arts.

Graduation Prize in Political Science
Awarded to an outstanding member of the graduating class who has completed a program in political science.

Graduation Prize in Linguistics
Awarded to the outstanding student graduating in Linguistics in the Major or Specialist Program.

Digital Equipment of Canada Limited Award of Merit
Awarded to the most outstanding student graduating in Computer Science in the University.

John H. Moss Scholarship
Exceptional all-round students graduating in the spring who intend to enter a graduate or second undergraduate degree program should request an application for this prestigious scholarship from the University of Toronto Alumni Association in the fall. The deadline is normally in early December.

Gordon Creasy Award/University of Toronto Student Leadership Award
To qualify for consideration, students must be in good academic standing and have made a substantial contribution to their college, faculty or the University as a whole. The award, established by the University of Toronto Alumni Association, requires a nomination by the college. The nomination deadline is normally in January.

University of Toronto at Scarborough Honours List
University of Toronto at Scarborough publishes annually an honours list, including the names of all degree students who have achieved a grade point average of 3.70 or better in their most recent year of full-time study or equivalent amount of part-time study. Students are considered for the

honours list at the end of the session in which they complete their 5th, 10th, 15th, and 20th credit. Other standing is nominated by the academic Divisions.

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

Bursaries/Financial Assistance
University of Toronto Undergraduate Bursaries
Applicants must demonstrate financial need. Applications may be obtained from the Counselling Services Office (Room S-302) and the Admissions and Awards Office (Room S-415). Deadline: November 1; however, applications will be accepted after this date should emergencies arise and funds still be available.

Gardner University Memorial Bursary
Awarded to a student enrolled in the Co-operative Programme in International Development Studies returning to Canada from abroad and applying to the University of Toronto. The bursary is awarded to the student remaining in good academic standing for the summer sessions and the final year. The deadline is normally in mid-January.

Edward A. Pickering Placement Bursary in Arts Administration
Awarded to students enrolled in the Co-operative Program in Arts Administration undertaking a placement on the basis of financial need. The deadline is normally in mid-January.

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The MacDonald Bursary
Awarded to a full-time degree student registered in second, third or fourth year who achieved at least a Grade B standing in the previous year and who can demonstrate financial need.

Ontario Student Assistance Programme
Canadian citizens or permanent residents who have established themselves as Ontario residents, and who demonstrate financial need, may be eligible for interest-free loans. OSAP applications may be picked up at Counselling Services (Room S-302). The Admissions and Awards telephone number for OSAP inquiries is (416) 978-2190.

applied to fees at N'Seenasheh. Application required. Deadline: June 30.

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Part-time Studies

All students, whether part-time or full-time, are subject to the same admission standards, and are governed by the same rules and regulations, and are required to satisfy the same degree requirements.

It is true, however, that students whose outside commitments prevent them from coming to the Campus during the day may find that they have less access to services in the University and to the informal student network. Part-time students should try to make the time to develop contact with these fellow students and with faculty members, since this is an integral part of the University experience. When problems arise, evening students are encouraged to meet with an academic counsellor (telephone (416) 287-7550).

In addition, the Association of Part-time Undergraduate Students (APUS) serves as the voice of part-time students in the University and can be a source of help.

Admission to University of Toronto at Scarborough

The same admission standards are applied to both full-time and part-time students. More information on admission for mature students and application deadlines is in the Admissions section of this Calendar. Any questions or concerns can be addressed by contacting the Assistant Registrar - Admissions at (416) 287-7529.

Awards

Part-time students are considered for most awards, but scholarships are governed by the same rules as full-time students. Some special awards and bursaries are available to part-time students through APUS. For further information see the Awards section of this Calendar.

Academic Regulations and Degree Requirements

Part-time students are governed by the same regulations as any other student. Students are responsible for reading through the sections of the Calendar dealing with regulations and Degree Requirements. When in doubt, students should contact the Registrar or an academic counsellor for assistance in interpreting regulations and their application in particular cases. Several regulations of particular relevance to part-time students are noted below. However, this list is by no means exhaustive. The fact that a particular rule is not quoted below in no way suggests that it will not apply.

1 Part-time students may find that degree or programme requirements change during their academic career. When changes occur, students are, whenever possible, allowed, sometimes for a limited period of time, to continue under the old rules. This does not usually apply to rules other than degree or programme requirements.

2 Although the University of Toronto at Scarborough attempts to make available to part-time students as many evening courses as possible, students may occasionally find that it is to their benefit to take courses on other campuses of the University. Students, of course, may not receive credit twice for courses that are deemed to be exclusions.

3 Part-time students are governed by the same regulations concerning the dropping of courses as all other students.

4 Students should be aware that special circumstances may on occasion justify an exception to the academic regulations. Requests for special treatment are made by petition to the Sub-committee on Standing. Students who believe that such special consideration is necessary may wish to meet with an academic counsellor to discuss the appropriate form of action. Students should be aware that special consideration may not be granted and should avoid taking any action on the basis of the denial of such a petition.

Choosing a Programme

Since most students complete programmes and since evening course offerings are limited, evening students should plan their course selection very carefully bearing in mind pre- and co- requisites and the fact that certain courses may not be available in a particular session. Programmes which are available in the evening are listed in a brief description of the availability of courses. Students are encouraged to consult their Programme Supervisor in planning their course selection. The summer timetable is available in the Registrar’s Office normally in February.

Economics Major and Minor Programmes

Each of the four courses specifically required for the Economics Major [ECON 191, ECON 192, ECON 220, ECON 221] is offered in the evening at least once each year. ECON 191 and ECON 220 are offered in both summer and winter evening sessions each year. ECON 192 and ECON 220 are offered in each winter evening session, and one is usually offered in each summer session. Each winter session, and in some summer sessions, at least one other course at the B, C, or D level is offered.

English Specialist, Major and Minor Programmes

English courses are, as far as possible, cycled as follows: ENGL 101 - every two years, ENGL 102 - every four years, ENGL 201 - every four years, and ENGL 203 and ENGL 205 - every four years. Pre-1000 courses are offered at least every two years. Pre-1600 courses - at least once every year.

D-level courses - usually 2 half courses every year.

History Specialist, Major and Minor Programmes

HIST 101 is offered in the evening normally every other year. Upper level History courses - at least two offered every year.

Psychology Specialist, Major and Minor Programmes

The following courses are normally offered annually in the evening and/or in the summer: PSYCH 101, PSYCH 205, and PSYCH 103, all of which are required for both programmes. As well, all courses in each of the content areas and all D-level courses are offered in the evening or summer session on an approximately 3 year cycle. Part-time students are also encouraged to check the offerings on the St. George campus, to which they have access and which they will find are not identical to those at Scarborough in any given year.

Sociology Minor Programme

Some Sociology courses will be offered in the evening of the summer session every year. These will normally include SOC 101 and one full-course equivalent at the B or C level. Every effort will be made to rotate these upper level courses so that students can complete the Minor programme in Sociology in not more than three years.
Student responsibility

Students are responsible for making themselves familiar with the information in this Calendar, particularly with this section, as well as instructions published periodically by the Registrar's Office. Students whose registration contravenes the regulations may be withdrawn from courses, regardless of when the contravention comes to light. Members of the Registrar's Office and the Counselling Services Office will assist students in interpreting the regulations and explaining their application in particular cases. Where appropriate, they will help those who encounter special difficulties to request special consideration.

Calendar changes

The information published in this calendar outlines the rules, regulations, curricula and Programmes for the 1997 Summer Session (May to August) and the 1997-98 Winter Session (September to May). The College reserves the right to change without notice any information contained in this Calendar, including any rules or regulations. The publication of information in this Calendar does not bind the University to the provision of courses, Programmes or facilities as listed herein.

Enrolment limits

University of Toronto at Scarborough reserves the right to limit the number of registrants in any Programme or course where the number of qualified students exceeds the teaching or other resources available. As far as possible, places will be available for incoming students in A-level courses.

Photo Identification Cards

All students are required to have a photo identification card. The identification card serves as both a proof of registration and a library card. Once fee payment for the session has been made, the card must be presented to the Registrar's Office for validation. The validation sticker remains in effect from September to August. Therefore it is not necessary for a 1997 Summer Session student who was registered in the 1996-97 Winter Session to present the card for validation again until the 1997-98 Winter Session. Students who do not have a photo identification card should obtain one from the Registrar's Office. Cards are provided free of charge to all new students. A fee is charged to replace cards.

Students in debt to the University

University of Toronto at Scarborough imposes the following academic sanctions on students in debt to the University:

- transcripts are not issued
- diplomas are not released
- written certification of degree and programme completion is not provided
- registration of continuing students is cancelled
- registration is refused to re-enrolling students (i.e., returning to the College after an absence of twelve months or more)

The following debts are taken into consideration when applying sanctions:

- tuition fees
- residence fees and other residence charges
- library fines
- Bookstore accounts
- loans made by colleges, faculties or the University
- Health Service accounts
- unreturned or damaged instruments, materials and equipment
- fines levied under the Code of Behaviour of non-academic matters

Course key

The Courses Code

1. The Discipline Abbreviation

The first three letters of the course code indicate, in an abbreviated form, the discipline or subject area of the course. ANAT 01Y "ANT" indicates a course in Anthropology. CHMB44Y "CIM" indicates a course in Chemistry.

2. The Course Level

The fourth letter of the course code indicates the level of the course with "A" indicating the most elementary level and "D" the most advanced. In the Student Telephone Service a separate three-digit numeric code indicates discipline.

3. The Course Number

The fifth and sixth letters of the course code are course numbers. In most disciplines, these numbers have meaning by identifying the course in a shorthand form.
Course Selection

3 Corequisites
Students must either already have passed the corequisite course, or must enrol in it at the same time as they take the course being described. Instructors are permitted to waive corequisites if they feel that there are adequate grounds for so doing. If students register in a course without meeting its corequisite, or if they withdraw from the required course without obtaining a specific waiver of the corequisite, they may be withdrawn from the course at any time during the session. Students who are not withdrawn from the course remain in it at their own risk, for lack of the corequisite is not grounds for special consideration.

4 Exclusions, Prerequisites and Corequisites in Parentheses
Prerequisites in Square brackets
Square brackets are used in prerequisites to indicate aggregate or alternative choices: examples: [ENGR21 & ENGR22] or [ENGR21] or [ENGR22] & one B-level course in Humanities or Social Sciences. Some exclusions and some prerequisite and corequisite courses are enclosed in parentheses: example (LAT606F). 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 passed a prerequisite or corequisite course may still be excluded from the course even if the prerequisites may make use of the course to meet the requirements of the course being described.

Supervised Reading, Supervised Research and Independent Study Courses
Students in these courses must have the direction of a faculty member with whom they meet periodically or who reviews their laboratory work. Students must obtain written permission from the instructor before enrolling in them. Forms are available from the Registrar's Office.

Course selection

In selecting their courses, students must adhere to the following regulations.

1 Prerequisites are not required for each course, as stated in the course description, must be waived by the instructor.

2 Students may not register for credit for a course if they have already passed another course in the same area of study with a grade not lower than the grade requirement for the course being described.

3 Students may not re-register for credit in a course if they have already passed that course. Students may re-register in a course they have taken, but failed. In such cases, both registrations in the course are shown on the student's record, and both grades count in the student's grade point average.

4 Students may not register for credit in a course which is a specific prerequisite for a course they have already passed.

5 Where students may not register in courses for credit, they may register in them as extras 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 must normally select as many courses as they wish each session.

Students should, however, note the following:

The usual load for a full-time student in the Winter Session is five courses.

The usual maximum load for a student in the Summer Session is two courses.

Students who are on probation are strongly advised to carry no more than 6.0 courses in one term. Should they choose not to follow this advice, they do so at their own risk.

In the Winter Session students are assigned to no more than 6.0 courses in August. Students wishing to enrol in more than 6.0 must wait until the course change period begins to add additional courses.

7 Students who plan to register in courses on the St. George or Erindale campuses must consult pages 237 and 238 of this Calendar. The "overall limit" rule is especially important.

8 Full-time students are those students who register in at least four courses in each term.

9 Students who are restricted to part-time study must have a course load in any one term of no more than 3.0 in the Winter Session or 1.0 in the Summer Session until they have completed at least three courses and have a cumulative grade point average of at least 2.00. Term course load is calculated as follows:

<table>
<thead>
<tr>
<th>Courses</th>
<th>1st term</th>
<th>2nd term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y courses</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>P courses</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>S courses</td>
<td>0.0</td>
<td>1.0</td>
</tr>
<tr>
<td>H courses</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>A courses</td>
<td>2.0</td>
<td>0.0</td>
</tr>
<tr>
<td>B courses</td>
<td>2.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Students must register for their courses in accordance with instructions issued each session by the Registrar's Office. Students who wish to change their registration:

10 Students must register for their courses in accordance with instructions issued each session by the Registrar's Office. Students who wish to change their registration:

- may do so only until the deadlines for adding and withdrawing from courses, stated in the "Academic Calendar" of this Calendar,

- must notify the Registrar's Office of any change through the Student Telephone Service or by means of a course selection form, submitted by the appropriate deadline.

11 Where multi-sectioned courses have a common examination, students enrolled in the evening section of the course may be required to sit an examination during the day.

NOTES:

1 A course. The word course is used in two ways: a) to describe a full or half course such as "the last day to withdraw from a course", or b) to describe a number of full courses, or the equivalent in full and half courses such as the requirement of passing fifteen courses for a three-year degree.

2 To Pass a Course. To pass a course means to obtain a grade of D- or better in that course (or "Credit in a Course").

A Specific Prerequisite. This rule does not apply in the case of non-specific prerequisites (such as "one B-level course in English"), or in the case where one of two or more completely different courses may serve as prerequisite.

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 reserve a place in any course selected. For deadlines and further information, see the registration material published separately for each session.

Course selection

Courses may be selected either through the Student Telephone Service or by submitting a course selection form directly to the Registrar's Office. (For regulations on course selection, see page 252.)

Fees payment

The University Fees Department publishes a schedule of fees for each session. The schedule for the 1997 Summer Session and the 1997-98 Winter Session will be included in the registration packages. Further information on fees may be obtained from the Fees Department, University of Toronto, 215 Huron Street, Toronto, Ontario, M5S 1A2; (416) 978-2142.

Programme registration

All degree students with at least 4.0 credits are required to register in their Specialist, Major or Minor Programmes. Students may only register in Programmes offered by University of Toronto at Scarborough. (For regulations governing Programmes, see page 14 of this Calendar.)

Summer Session

1997 Summer Session registration begins through the Student Telephone Service on March 27 and in person on March 31. Students who registered at the College in the 1996 Summer Session or the 1996-97 Winter Session and who are not on suspension are eligible to register. Students may pick up their registration packages from the Registrar's Office. New students, students who re-enrol (i.e. reactivate their enrolment after an absence of one year or more) and other students who are not on campus (e.g. students who withdraw) will be mailed their registration material upon request.

Courses for the Summer Session are assigned on a first-come-first-served basis.

Winter Session

1997-98 Winter Session registration begins on June 23. Students who registered at the College in the 1996-97 Winter Session and who are not on suspension are eligible to register. Registration packages will be mailed in mid-July to new registrants and those who re-enrol (i.e. reactivate their enrolment after an absence of one year or more) may
pick up their registration packages from the Registrar’s Office. Registration packages will be mailed on request.

Course scheduling
All requests for course enrolment received by the August deadline will be considered at the same time.

Priorities for course scheduling
With the exception of courses with restricted admission, priority is given as follows:

<table>
<thead>
<tr>
<th>Year of Study</th>
<th>Passed credit</th>
<th>Priority given in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th</td>
<td>14.0</td>
<td>C level</td>
</tr>
<tr>
<td>3rd</td>
<td>9.0 to 14.0</td>
<td>C&amp;D level</td>
</tr>
<tr>
<td>2nd</td>
<td>4.0 to 8.5</td>
<td>II level</td>
</tr>
<tr>
<td>1st</td>
<td>&lt;4.0</td>
<td>A level</td>
</tr>
</tbody>
</table>

Once the course change period begins, places in courses which do not have restricted admission are assigned on a first come-first served basis.

Timetables
Following the August course scheduling, personal timetables will be mailed to all students who have requested enrolment in a course. Personal timetables are not produced to reflect changes made after the August scheduling.

Student Telephone Service and the World Wide Web

University of Toronto Student Telephone Service (416-978-4060)
University of Toronto at Scarborough

- Students using any of their phone calls they may use the Student Telephone Service to:
  - add courses
  - drop courses
  - change sections
  - list courses on their record
  - receive St. George campus bulletin results
  - obtain grades

- For detailed instructions on using the Student Telephone Service see the Registration Instructions for each session.

Telephone course identifiers are the numbers which appear next to the course code in the course descriptions in this Calendar and in the master timetable. (If a course change term, e.g., from "F" to "S", see "Course Code" on page 231 of this Calendar for more information.)

By using the Student Telephone Service, students are modifying their own computer records. Access is through student number and a four digit personal identification number (PIN). PIN usually consists of month and day of birth (e.g., 0332 = March 31). For this reason it is important to not give both student number and date of birth to anyone else. Students who are concerned about security may change their PIN through the Registrar’s Office to one of their own choice. PINs will not be changed without photo identification. For security there is a limit on the number of attempts which can be made to enter PINs. Students who exceed the limit will have their access to the Student Telephone Service suspended and should contact the Registrar’s Office immediately. Access will not be restored without photo identification.

Using the Student Telephone Service
Students are guided through each step of the telephone call and are asked at certain steps to confirm their intent. The call must progress through all steps before any change is made to the student record. When it has, the system will confirm that the transaction is complete and will offer other options or will end the call. When changes telephone courses identified - it is important to always end the call by using the “list” option or by progressing as programmed so that the record is correct.

Student Telephone Service hours
The Student Telephone Service is normally available from 7:00 a.m. to 7:00 p.m. Monday to Friday and from 7:00 a.m. to 5:00 p.m. on Friday. At certain times of the year the hours and/or days are extended.

Service to the hearing-impaired
Access to the Student Telephone Service is available by the Bell Relay or by contacting the Special Services Office via TDD at (416)978-4060.

Student Telephone Service fee
Incidental fees each session include a $5.00 Telephone Service fee. Students who do not use the service may request a refund by submitting a refund form to the Registrar’s Office by the appropriate deadline. (See the fees information published each session for deadline dates.)

Further information on the Student Telephone Service is included in the registration material.

Academic Term Dates

World Wide Web
http://scnr9.utoronto.ca

Students with a computer account may obtain information and complete certain tasks, such as changing their address or telephone number, through the World Wide Web. Available information includes:

- the information in this Calendar
- changes to the Calendar
- timetable for each session
- timetable changes
- examination timetables
- divisional, discipline and course information
- faculty home pages
- and faculty administration telephone directories

Additional features are gradually being introduced.

Course changes

Students may add courses or withdraw from courses without academic penalty up to the date stated in the Academic Calendar on page 6, either through the Student Telephone Service or by submitting a course selection form to the Registrar’s Office. The deadlines for adding or withdrawing from courses are strictly applied.

Students who make changes through the Registrar’s Office will be given or assisted a corrected copy of their course selection form and should retain it until they have received their statement of results for the particular session. Students who make changes through the Student Telephone Service should end their call by listing their courses to ensure that the change has been processed properly. They will not receive written confirmation of the change but it will be recorded in the detailed log kept by the University of activity in the Student Telephone Service. At the time students add a course to their record they are accepting responsibility for fees payment for it. Students who withdraw from courses by the appropriate deadline may be entitled to a fees adjustment. (See the fees information published each session for more information.)

Adding a course

Some courses have a restricted admittance and require approval before students are allowed to enrol in them. A list of restricted courses and the approval needed is posted in the Registrar’s Office at the beginning of each session.

Changing sections in a course

Students may change sections in a course at any time provided that, if the change takes place after the deadline for adding the course, they have appropriate approval. Approval normally comes from the instructor of the new section or from the course coordinator. Changes must be recorded at the Registrar’s Office either through the Student Telephone Service (until the last day to add the course) or by master of a course selection form.

Dropping a course

If students withdraw from a course by the appropriate deadline, no record of registration is shown on the student’s transcript. If students cease to complete course requirements but do not withdraw officially by the deadline, a grade based on the marks awarded (including a zero for any incomplete work) will be recorded.

Withdrawal from the session

Students who wish to withdraw from the College for a given session do so by withdrawing from all courses by the dates specified in the Academic Calendar. Students must also complete the following procedures:

- return any borrowed books to the Library
- return any outstanding library fines and receive clearance from the library
- return any equipment borrowed from the College Recreation Centre and surrender any recreation centre locker
- remove any College locker and return (perhaps for a partial refund) any College parking permit
- surrender any on-campus housing key and equipment

Students who wish to withdraw from the College are advised to speak to an academic counsellor. The counsellor will advise students concerning the academic consequences of their withdrawal (deadlines dates, eligibility for readmission, etc.), any fees adjustments and repayment of Ontario Student Assistance.
Standing in a course

Grading scheme

Students are assigned a grade in each course, as follows:

Grade Point Percentage
A+ 4.5 90-100
A 4.0 85-89
A- 3.7 80-84
B+ 3.3 77-79
B 3.0 75-76
B- 2.7 70-72
C+ 2.3 67-69
C 2.0 63-66
C- 1.7 60-62
D+ 1.3 57-59
D 1.0 53-56
D- 0.7 50-52
CR No Value Credit in a Credit/No-credit course
I 0.3 35-49 Inadequate
F 0.0 0-34 Wholly Inadequate
NCR 0.0 No Value No credit in Credit/No-credit course

Grades of "F", "I", and "NCR" are failing grades, yielding no standing in a course and no degree credit. Students are cautioned that a numerical score on an assignment is not deemed to be the corresponding letter grade.

Credit/No credit courses

In some courses such as certain visual and performing arts courses or certain drama courses, specific letter grades may not be assigned. Students may instead be graded on a Credit/No credit (CR/NCR) system. The grade of "No credit" is in effect the grade of "F". Where students earn a grade of "Credit" in a course, the course is not included in the grade point average; where students earn a grade of "No Credit", the course is included as an "F" (value zero) in the grade point average.

Agreatot standing

The Subcommittee on Standing may, on petition, assign a grade of "Agreatot" (AG). This grade is assigned on the basis of work completed where medical or similar evidence demonstrates that a student is unable to complete course requirements within a reasonable time, and where a student has already completed at least 60% of the work of the course with a grade of C minus or better. Where a student is assigned Agreatot 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 232). 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 noteables

The following have no grade point value and do not yield credit:
- WDR = Withdrawal by petition without academic penalty after the relevant deadlines (see "Special Consideration, Petitions and Appeals" on page 252).
- NGR = grade withheld pending review
- N/A = grade not yet assigned

Overall standing

Grade point average

At the end of each summer session (May to August) and each winter session (September to May), both a sessional and a cumulative grade point average (GPA) will be calculated for each student, and shown on the student's transcript. The grade point average is calculated as follows:

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) taken.
2. A sessional grade point average is calculated on the basis of all courses taken in the given session (winter or summer) having a grade point value.
3. A cumulative grade point average is calculated on the basis of all courses taken having a grade point value.

Determination of academic status for students admitted on condition

Students for whom good standing is determined according to the following rules:

In certain circumstances, students who do not meet normal admission requirements may be admitted on "conditional" status. The academic status of such students is determined according to the following rules:

The status of students admitted on condition will be assessed at the end of the session in which such students complete their second full-course equivalent.
Study at other Universities

Students who wish to take courses at another university and have credits transferred to University of Toronto must receive permission from the Office of the Dean of Admissions at the University of Toronto to do so prior to taking the courses. Students who study at other institutions without the University of Toronto's approval in advance do so at their own risk since permission to transfer credit is not usually granted after the course has been taken. Students should also be aware that duplication of previous study is not permitted. Students who study at other institutions after leaving University of Toronto at Scarborough are required to have official transcripts upon re-enrollment.

There are three types of programs where credit transfer is considered.

1. **Study Elsewhere Program**
   - The Study Elsewhere Program allows a student to study full-time at an accredited university in a different national 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. Student Exchange Programs, similar to Study-Elsewhere Programmes, are part-time Letter of Permission programmes, have the advantage that students pay fees to the home university. The regulations governing the programmes are different.

2. **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 SA 415. Requests should include the name of the university, the course number, title and description. Course request 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 6 credit 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 study at institutions within Metropolitan Toronto and surrounding regions is allowed. A student who completes the final course(s) of the degree during the Winter Term may apply to graduate at the June Convocation but may apply for graduation at the November Convocation. A fee will be charged for each Letter of Permission.

3. **Special Note: French Summer Immersion Programmes**
   - The French Language Immersion Program is funded by the Official Languages Program of the Government of Canada in co-operation with the appropriate provincial government. O.C.I.A, the Ministry of Education and Training, has assumed responsibility for this program. The program is provided by the University of Toronto. Students who are interested in this six-week immersion program in Quebec or elsewhere in Canada should complete the necessary forms promptly upon distribution by the Ministry. (Check with Counselling Services in January for expected date of mailing.) Speak to the Assistant Registrar - Admissions and the Study-Elsewhere Program/Office of the Dean of Admissions for advice about choosing three universities offering courses which are most closely corresponding to the curriculum at the University of Toronto. Submit the form to the Registrar's Office to verify registration and mail promptly to enhance your chances of obtaining your first choice of university. Once you know the university to which you have been accepted and at least three weeks before your departure, apply for a Letter of Permission. You will be advised of the level in which you must register in order to be eligible for the credit to be transferred.

4. **Study Elsewhere Year**
   - To apply for a Study Elsewhere Programme, students may obtain an application from the Assistant Registrar - Admissions or the Vice-Principal and Vice-Dean. The application requires details of the proposed course of study and asks students to show how the intended studies will enhance their studies at University of Toronto at Scarborough. Students who intend to count the courses towards programme requirements must obtain the approval of the Programme Supervisor before submitting the application. Students normally apply for a Study Elsewhere Year during the third year of a four-year programme. Non-enrolled students may apply after completing four full-course equivalents at University of Toronto at Scarborough in France for French courses and for students must have a cumulative grade point average of 2.5 or better. Students must return to University of Toronto at Scarborough to complete the final year of study. A maximum of 5 full-course equivalents will be considered for transfer.

Contact applications should be submitted to the Vice-Principal and Vice-Dean by April 1. Details about the proposed programme will be confirmed by the Study Elsewhere Committee.

Questions or concerns should be submitted to the Assistant Registrar - Admissions, Room SA 415 for further information.

There are also some exchange programs with other universities in Canada. See the Assistant Registrar - Admissions, Room SA 415 for further information.

University of Toronto offers Study Elsewhere opportunities at Leeds and Siens but students may submit proposals for any accredited university that qualifies for a Study Elsewhere experience.
(b) Grading and Accountability

Students registering in courses offered by the University of Toronto receive grades in the normal manner.

To receive credit for other courses, the student must earn one full grade higher than the minimum passing grade (i.e., a C minus or better at universities using a grading scale similar to that of the University of Toronto). Grades are not recorded on transcripts and are not included in any grade point averages. The student must arrange for the host university to send an official transcript to the University of Toronto at Scarborough promptly after completion of the course. Students who otherwise withdraw without academic penalty must arrange for a letter from the Registrar of the host university confirming this. Failure to meet this or the minimum grade requirement will result in the notation of "no credit" being entered on the student's transcript at the University of Toronto at Scarborough.

Fees and Aid

Students pay the appropriate fees to the host university and a Study Elsewhere fee or Letter of Permission fee will be charged by the University of Toronto at Scarborough. Students who would be eligible for financial assistance through the Ontario Student Assistance Program are eligible for study at the University of Toronto at Scarborough. Students who would be eligible for financial assistance through the Study Elsewhere program (Consult the Student Awards Division of Admissions and Awards at 978 2190.)

Academic Transcripts

The academic transcript is the official statement of the academic record of each student.

Contents

The transcript records the following information:

1. Information to identify the student:
   - full name and university student number

2. The student's academic record, listed chronologically by year:
   - each course attempted, its abbreviated title, and its grade;
   - the sessional grade point average; and
   - the cumulative grade point average at the end of the session.

3. The student's academic status at the end of the session: in good standing, on academic probation, suspended for one year, suspended for three years, refused further registration, or dismissed.

4. The student's academic performance on academic policies, such as:
   - academic probation;
   - academic suspension;
   - academic honours awarded:
     - scholastic awards;
     - academic awards granted by the College or by the University, including:
       - the University of Toronto at Scarborough Honours List, and
       - graduation with high distinction or with distinction.

3. The following kinds of special consideration granted by petition:
   - "Special Consideration, Petitions and Appeals" on page 252.
   - Withdrawal without academic penalty from a course after the relevant deadline. See "Standing in a course" on page 236.
   - extensions of time to complete term work (except when the student fails to take advantage of the extension offered);
   - deferred examinations and the rewriting of examinations;
   - other consideration deemed to have altered the academic record.

Ordering Copies

Students may obtain copies of their academic transcripts, subject to reasonable notice and upon payment of a fee.

Copies of transcripts may be requested in person or by letter only. At the student's signature is required unless the student is authorized to release the transcript to third parties. Telephone requests cannot be accepted.

To order copies of transcripts, students should visit the Registrar's Office, or should write to: Registrar's Office, University of Toronto at Scarborough, 1203 Military Trail, Scarborough, Ontario, M1A 1A4. Payment by mail should take the form of a cheque or money order payable to "The University of Toronto".

There is a $1 charge for copies of transcripts sent to other divisions of the University of Toronto.

Copies of transcripts sent directly to educational institutions and other institutional recipients bear a replica signature of the Associate Registrar and the official College seal. Copies sent directly to students do not bear the College seal and are marked "Student Copy". To prevent tampering, most institutional recipients insist that the transcript copy be sent directly to them.

Policy on Access to Student Records

1. Purpose

(a) Academic records of students are ultimately the property of the University, and it is the responsibility of the University to establish, maintain, and control student records in a manner that accords with the purposes set out below.

(b) The purpose of this policy is to ensure consistency with flexibility in such a way as to ensure that:

(i) Students, alumni, and former students are allowed at least a degree of access to their own academic records at an administration, as is administratively feasible.

(ii) A student's right to privacy in relation to his or her academic records is safeguarded as far as both internal records access and external access to academic records are concerned.

(iii) There will be a basic university-wide consistency in the kinds of information collected, recorded, filed, and made available.

(iv) In keeping with the purposes of the University academic division, academic flexibility in the implementation and application of the policies established within this document.

(c) Individual divisional regulations and procedures on access to student academic records, including the statement in the divisional calendar concerning such, shall be reported by the Provost to the Committee on Academic Policy and Program. Any subsequent revisions shall also be reported.

2. For the purpose of this policy:

(a) "Student" means any person registered at the University for full-time or part-time study in a program that leads to a degree or post-secondary diploma or certificate from the University or in a program designated as a program of post-secondary study at the University by the Governing Council or other University body having delegated authority. On the date of an enquiry or request relevant to this policy, persons who have been registered within a period of two calendar years shall be included in the provisions which relate to "students".

(b) "Alumni" or "alumni" means any person who has received a degree or post-secondary diploma or certificate from the University, or any person who has completed one year of full-time studies or the equivalent thereof as determined by the Governing Council, towards such a degree, diploma, or certificate, and is no longer registered at the University.

(c) "Former student" means any person who is not a student or an alumnus or alumna who has been registered at the University in a program as defined in Section 2 (a), and is no longer registered at the University.

(d) "Academic Division" means a college, school, institute, faculty or other division of the University that has academic autonomy (i.e. the right to administer its own degrees, diplomas, certificates and other programs of study), subject only to the jurisdiction of the Vice-President and Provost, the President and the Governing Council.
3. Definition of the official student academic record

The official student academic record refers to information relating to a student's academic performance at this University. The "official student academic record" shall contain:

(a) (i) Personal information which is required in the administration of official student academic records such as name, student number, citizenship, social insurance number
(ii) Registration and enrolment information
(iii) Results for each course and academic period
(b) (i) Narrative evaluation of a student's academic performance subsequent to his or her admission, used to judge his or her progress through an academic program.
(ii) Basis for a student's admission as such the application for admission and supporting documents.
(iii) Results of petitions and appeals filed by a student.
(iv) Medical information relevant to a student's academic performance which has been furnished at the request or with the consent of the student concerned.
(v) Letters of reference which may or may not have been provided on the understanding that they shall be maintained in confidence.
(vi) Personal and biographical information such as address and telephone number.

The "official student academic record" shall be maintained by the University. For each type of information, academic divisions shall designate which documents or medium contain the official version and how official copies of such information will be identified.

4. Access to official student academic records

(a) Access by a student
(i) A student may examine and have copies made of his or her official student academic record defined in Section 3 above, with the exception of those portions of the record which comprise letters of reference (Section 3(b)(iv)) which have been provided or retained on the expressed or implied understanding that they shall be maintained in confidence. A student may, however, be advised of the identity of the authors of any confidential letters contained in his or her official academic record.
(ii) A student's request to examine a part of his or her official student academic record shall be made in writing and shall be complied with by the responsible authorities within a division. Such compliance shall occur within 30 days of receipt of the request, or within such lesser period as a division may determine.
(iii) An alumna or alumna or a former student shall have the right to challenge the accuracy of his or her official student academic record with the exception of the material specifically excluded in Section 4(a)(i) and to have his or her official student academic record supplemented with comments so long as the sources of such comments are identified. The official student academic record remains under the custody of the academic division. Reference to such comments does not appear on reports such as transcripts or summaries of results of students or students who are to be maintained in confidence.
(iv) It is assumed that all documents relating to petitions and appeals (Section 3(b)(iii)) and not provided on the understanding that they shall be maintained in confidence will be retained within a division, and when needed by a student, will be made freely available. In addition, The Statutory Powers Procedure Act, 1978, requires that where the good character, capacity or competence of a party is in issue in any proceedings in a tribunal to which the Act applies (such as the Appeals Branch of the Governing Council), the party is entitled to be furnished prior to the hearing with "reasonable information" of any allegations with respect thereto.

(b) Access by alumni and former students
(i) An alumna or alumna or a former student may examine and have copies made of the portion of his or her official student academic record as defined in Section 3(a) above.
(ii) A request from an alumna or alumna or a former student to examine the portion of the official student academic record as defined in Section 3(a) shall be made in writing and shall be complied with by the responsible authorities within a division. Such compliance shall occur within 30 days of receipt of the request, or within such lesser period as a division may determine.
(iii) An alumna or alumna or a former student shall have the right to challenge the accuracy of his or her official student academic record only under such terms and conditions as the academic division may determine and publish in the divisional calendar.

(c) Access by University Staff and members of official University and divisional councils and standing committees

Members of the teaching and administrative staff of the University and members of official University and divisional councils and committees shall have access to official student academic records for purposes of the performance of their duties. A staff member requesting information must have a legitimate need to have the requested information for the effective functioning of the position that person holds.

Access to medical information as defined in Section 3(a) shall be granted to members of the teaching and administrative staff only with the prior expressed or implied consent of the student and, if applicable, in the case of a medical assessment, the originator, physician, etc. of such record.

The Department of Alumni and Community Relations shall have access to appropriate personal information on students and alumni for the purpose of maintaining contact with alumni.

(d) Access by University campus organizations

Recognized campus organizations in the University of Toronto shall have access to the information referred to in Section 3(a)(ii) as well as to the residential address and telephone number of students named by that organization for that legitimate internal use of that organization. The Students' Administrative Council, Graduate Students' Union, Association for Part-time Undergraduate Students, and The Newspaper shall be entitled to publish and distribute within the University community a University-wide directory of students (including undergraduate, graduate, full-time and part-time) giving the seasonal address and telephone number of students as long as there is a reasonable provision for students to decline to consent to the disclosure of that information.

Names and addresses of students will also be provided to recognized campus organizations for the purpose of distributing information when all of the following conditions are met:

- The name and address information is used only for institutional or commercial purposes.
- The organization proposes to distribute information which, in the opinion of the Assistant Vice-President (Planning) and University Registrar, is not of a性质 or nature suitable for commercial purposes.
- The organization proposes to distribute information which, in the opinion of the Assistant Vice-President (Planning) and University Registrar, is not of a性质 or nature suitable for commercial purposes.

The information to be distributed and provide information about the University and is not primarily advertisements for non-University organizations.

- The campus organization agrees to use the name and address information only for specific purpose for which it was provided.
University grading practices policy

The following is the text of the University grading practices policy. Schedule brackets [ ] indicate additions to the policy to clarify or interpret as it applies specifically to the University of Toronto at Scarborough.

Purpose
The purpose of the University Grading Practices Policy is to ensure:
(a) that grading practices 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 grade scales, while remaining suited to the particular circumstances of every division, are compatible with each other;
(d) that the academic standing of every student can be accurately assessed even when courses have been taken in different divisions of the University and evaluated according to different grade scales.

Application of policy
The Policy applies to all individuals and committees taking part in the evaluation of student performance to degree, diplomas, and certificate credit courses (heretofore referred to as courses), excluding courses in the School of Graduate Studies.

Amendment to policy
Amendments to the Policy shall be recommended to the Academic Board.

Changes to 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 scale used in a division and the substance of divisional regulations included 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 Provost.

PART I: Grades

Grades are a measure of the performance of a student in individual courses. Each student shall be judged on the basis of how well he or she has command of the course materials.

L1 A grade assigned in a course is not an assessment of standing within a program of studies. To determine the requirements for credit and standing in a program of studies, the academic regulations of the division in which the program is offered should be consulted.

L2 Grades for each course shall be assigned with reference to the following meanings (which may be expanded in the divisional regulations under Part II):
   Excellent
   Good
   Adequate
   Marginal
   Inadequate
   Wholly inadequate

Grade scales
L3 Once a judgment on the performance of the student has been made, the following grade scales may be used in accordance with divisional practice:
   (a) a compatible letter grade scale;
   (b) the numerical scale of marks; and/or
   (c) the scales Honour/Pass/Fail and Credit/No Credit.
[For the scale used at University of Toronto at Scarborough, see page 236.]

Grade vs. scores
L4 Grades should always be based on the approved grade scales. However, students may find that on any one evaluation they may receive a numerical or letter mark that reflects the score achieved on the test or essay. The cumulative scores may not be directly identified with the final grade.
Grades are final only after review by the divisional review committee described below.

15 A table of correspondence and a translation table are defined in the Appendix for each of the letter grade scales referred to in 13.4(a) in order to allow the conversion, when necessary, of a grade assigned from one scale to the corresponding grade in another. It should be noted that these tables are not to be used to translate a score to a grade directly.

**Grade reporting**

16 Only one letter scale, as referred to in 13.3(a) may be used in a division for assigning grades, but the numerical scale and the I/P/F, I/P/L, and CR/NC scales, as referred to in 13.6(b) and (c), respectively, may also be used. The grades assigned in a course, however, must all be from the same scale.

17 Grades in each course shall be assigned according to the practice of the division offering the course.

Grades in each course shall be reported according to the practice of the division administering the program in which the student is registered (the reporting division).

(a) Grades shall be reported as assigned when the division offering the course is also the reporting division, when the offering and reporting division use the same grade scale, and when the grades are reported on CR/NC scales.

(b) In all other cases, grades shall be reported as converted to the scale used by the reporting division, and the conversion shall be made according to the tables of correspondence and translation tables defined in the Appendix.

(c) With the exception of I/P/F, I/P/L, and CR/NC scales, two different letter grade scales may not be used on the transcript.

(d) A grade not reported in the form originally assigned by the offering division must on request be made available to the student in that form by the reporting division.

18 All non-grade symbols used in reporting course results must correspond to the University-wide standard. A list of the currently approved symbols and their meanings is given in the Appendix A.2.

19 The information in grade reports and transcripts must be communicated to the user, whether within or outside the University, in a clear and meaningful way. To that end, transcripts issued by every division of the University must indicate the relationship between the divisional grade scale, the grade meanings, the basic letter grade scale, whether refined or unrefined by plus and minus signs, and the scale of numerical marks as well as the translation table. A list of non-grade symbols and meanings shall also be included in the transcript.

**PART II: Grading Procedures**

**Approval of grades**

Grades shall be recomended by the instructor to the chair or division head.

The grades shall then be reviewed and approved following the divisional review procedure. Grades shall not be reported or released to students as official until the divisional review procedure has been carried out. The divisional review constitutes final approval of grades except when grades are changed on appeal.

**EJ Divisional Review Committee**

In each division, a committee is chaired by the divisional head or a designee, and where appropriate, an additional committee structure, with the chair (or the designee) and other academic units of divisions serving as chairs, shall:

(a) administer the implementation of the University Grading Practices Policy at the divisional level and ensure the general consistency of grading procedures with the division;

(b) formulate, approve, and administer the division's specific regulations concerning the grade scale or scales to be used, the assignment of non-grade symbols 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 by the professional faculties may be adjusted according to his or her performance in the course or relative achievement by the committee. The divisional committee has the final responsibility for assigning the official course grade.

**E.2 Classroom procedures**

To ensure that the methods of evaluation in every course reflect appropriate academic standards and fairness to students, divisional regulations governing classroom procedures must be consistent with the practices below:

(a) As early as possible in each course (and no later than the division's fast date for course enrollment) the instructor shall make available to the class, and shall file with the division or department, the methods by which student performance shall be evaluated. This should include whether the methods of evaluation shall be essays, tests, examinations, etc., the relative weight of these methods in relation to each other, and the timing of each major evaluation.

(b) After the methods of evaluation have been made known, the instructor shall not change them or their weights without the consent of at least a simple majority of the students enrolled in the course. Any changes shall be reported to the division or the department.

(c) Student performance in a course shall be assessed on more than one occasion. No one essay, test, examination, etc., should have a weight of more than 80% of the grade. Criteria for exemption may be determined by the division.

-- (Exempt from this requirement are advanced seminar courses or supervised research or supervised reading courses. In such courses more than 80% of the final grade may be based on a thesis, a research essay or project, or a comprehensive examination.)

(d) In courses that most regularly as a class there shall be an examination (or examinations) conducted formally under divisional supervision and worth (alone or in the aggregate) at least one-third of the final grade.

Criteria for examination may be determined by the division.

-- [In A-level courses, at least one third of the final grade will be based upon a formal examination(s) in the Christmas examination period in December and/or in the final examination period in April and May (or in comparable examination periods in the Summer Session).

-- In B-level, C-level and D-level courses, at least one third of the final grade will normally be based upon a formal examination(s). Alternatively, a supervised term test(s), valued at least one third of the final grade, may be substituted for the formal examination, upon the written approval of the instructor, department and the Academic Council.

-- The following courses may be exempted from the requirement for examinations, upon annual recommendation of the instructor and approval of the appropriate Divisional Chair: advanced seminar courses; supervised reading or research courses; field courses; and performance courses such as music performances. The above examination requirement is reported annually via the Sub-committee on Curriculum & Standards of the Governing Council.

-- Oral Examinations. At the discretion of the instructor oral examination may be required in conjunction with any piece of written work. At the examination, the student
must defend the ideas advanced in the paper. The grade assigned for the paper may be substantially affected by the results of the oral examination.

The relative value of each part of an examination shall be indicated to the student. In the case of a written examination, the value shall be indicated on the examination paper.

(c) Commentary on assessed term work and time for discussion of it shall be made available to students.

(f) At least one piece of term work which is a part of the evaluation of a student's performance, whether essay, lab report, review, etc., shall be returned to the student prior to the last date for withdrawal from the course without academic penalty. The following two categories of courses shall be exempted from this requirement: Field courses such as Anthropology and Geology; independent research and senior essay courses, which are by definition "one-on-one" courses with continual monitoring throughout the year, and large single end-of-year assignments which constitute the basis of the final mark.

(g) Grades shall be recommended by the instructor in reference to the approved grade scales on the basis of each student's overall performance.

In formulating their own regulations divisions may add to items (a) to (g) and may adopt fuller or more specific provisions, for example in place of such terms as "a simple majority" (b), "one-third of the final grade" (d), or in particularizing the evaluation methods referred to in (a) and (b).

8.3 Procedures in the event of disruptions

Principles

The following principles shall apply in the event of disruption of the academic program:

(a) The academic integrity of academic programs must be preserved;
(b) Students must be treated in a fair manner recognizing their freedom of choice to attend class or not without penalty.

Procedures

(d) The Vice-President and Provost, or the Academic Board, shall declare when a disruption of the academic program has occurred. The Provost shall take steps to inform the University community at large of the changes to be implemented, and will report to the Committee on Academic Policy and Programs regarding the implementation of the procedures and changes to the status of the academic programs.

(b) Individual instructors or multi-section co-ordinators responsible for courses that are disrupted shall determine, as the disruption proceeds, whether any changes to classroom procedures are needed to complete the course.

(c) Changes to the classroom program 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 the class discussion, will provide the division head or chair of the department in multi-departmental faculties, with his or her recommendation, along with the results of any classroom votes. The chair or division head shall then make a decision.

(e) Where classes are not able to convene, the instructor, with the prior approval of the chair or division head, shall make changes deemed necessary to the classroom procedures. In the absence of the instructor such changes will be made by the divisional head and require the approval of the Provost. Where courses are to be cancelled, approval of the divisional council is required. If the divisional council cannot meet, approval of the divisional head, or in the absence of the divisional head, the approval of the Provost, is required.

(f) Students must be informed of changes to classroom procedures. This may be done by circulating the changes in writing to the class, posting in the departmental and faculty offices, reporting to the divisional council, as well as listing in the campus press. Should classes resume students must be informed, at class, of any changes made during the disruption.

(g) Where a declared disruption occurs in a specific course after the last day to drop courses for the academic term or session, students who do not wish to complete the course(s) during that term or session, may, prior to the last day of classes, withdraw without academic penalty. Students who withdraw from a course prior to the last day of classes as a result of a declared disruption shall receive a full refund of the course tuition fee.

(h) Where students not attended classes that are meeting, they nonetheless remain responsible for the course work and meeting course requirements. However, where possible, reasonable extension of deadlines for the course requirements, or provision of make-up tests shall be made and reasonable alternative access to material covered should be provided.

(i) A student who considers that a disruption has unreasonably affected his or her grade in a course may appeal the grade following the procedures as set out in each division. If the petition is approved, the student's original grade will be replaced by either an assigned grade or by a grade of CR/NCR, 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 midway performance evaluation with feedback to the student;

(c) Written documentation of the final assessment. In addition, for such clinical and field experiences, divisions must ensure that:

(d) Clinical and field assessors are fully informed regarding
University, divisional and course policies concerning evaluation procedures, including the specific assessment procedures to be applied in any particular field or clinical setting. Any exceptions from the above shall require a divisional request with explanation for approval by the Governing Council.

8.5 Grade review and approval process
[The Divisional Review Committee of University of Toronto at Scarborough is the Sub-Committee on Marks Review.]

The following principles and procedures shall govern the grade review and approval process.
(a) The distribution of grades in any course shall not be predetermined by a system of quotas that specifies the number or percentage of grades allowable at any grade level.
(b) However, a division may provide broad limits to instructors setting out a reasonable distribution of grades in the division or department. Such broad limits shall recognize that considerable variance in class grades is not unusual. The division may request an explanation of any grades for a course that exceed the limits and hence appear not to be based on the approved grade scales or otherwise appear anomalous in reference to the Policy. It is understood that this section shall only be used when the class size is thirty students or greater. Each division shall make known in the divisional Calendar the existence of any such limits.
(c) The criterion that the Divisional Review Committee shall employ in its evaluation of whether the instructor has followed the University Grading Practices Policy. The Review Committee shall not normally adjust grades unless the consequences of allowing the grades to stand would be injurious to the standards of the University, or the class in general.
(d) Membership on the Divisional Review Committee may include students but should not include members of the divisional appeals committee.
(e) Where grades have been adjusted by a divisional committee, the student as well as the instructor shall be informed. On request, the students or the instructor shall be given the reason for the adjustment of grades, a description of the methodology used to adjust the grades, and a description of the divisional appeal process.
(f) Where a departmental review committee changes course grades, the faculty office shall be so informed. Having done so, the faculty office shall relay this information, upon request, to the students or the instructor with a description as to the reason for the change and the methodology used.
(g) Past statistical data, including drop-out rates, mean arithmetic average, etc., should be provided to the Divisional Review Committee as background information where available. The committee will not use this information exclusively to judge whether a specific grades distribution is anomalous. Rather, the information should provide part of the basis for an overall review of grades in a division.
(h) Where course grades have been changed, or when the Divisional Review Committee had reservations about grades, the issue will be taken up with the instructor by the division or department head, with a view to ensuring that the Grading Practices Policy is followed in future.

Examinations
Examinations are held at the end of both terms in each session. Students who make personal commitments during the examination period do so at their own risk. No special consideration will be given and no special arrangements made in the event of personal commitments. Information regarding dates and times of examinations will not be given by telephone.

8.6 Student access to examination papers
(a) All divisions should provide access to copies of the previous years' final examination papers and other years' papers where feasible. Examinations may be granted by an appropriate committee of the division or department.
(b) All divisions should provide students with the opportunity within a reasonable time to review their examination paper where feasible. A recovery fee should be set to cover administrative costs including photocopying.
(c) All divisions should provide, in addition to the customary re-reading of papers and the re-checking of marks, the opportunity for students to petition for the re-marking of their examination where feasible. A recovery fee should be set and returned where appropriate.

For further details, please refer to "Procedures for requesting special consideration, petitions, and appeals" (page 252).

8.7 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.
Candidates shall not be permitted to leave the examination room except under supervision until at least half an hour after the examination has commenced.

Candidates shall not leave the examination room within the first ten minutes of an examination, during which time they shall remain quietly seated at their desks.

At the conclusion of an examination all writing within the answer books shall cease. The invigilator may refuse to accept the papers of candidates who fail to observe this requirement.

Examination books and other material issued for the examination shall not be removed from the examination room without the authority of the invigilator.

Smoking is not permitted in the examination rooms.

Procedures for requesting special consideration, petitions and appeals

Petitions for exceptions to the academic regulations

1. Students may request that an exception to an academic regulation be made in their case. Such a request takes the form of a petition to the "Academic Course of Study" at Scarborough Sub-committee on Standing.

2. To ensure a petition is submitted on time, the student prepares a written statement, stating clearly the special consideration requested; stating clearly the grounds upon which such consideration is requested, that is, the reason(s) why the student believes an exception to the rules is appropriate in this particular case; and appending documents to evidence special circumstances, medical certificates, etc.

3. Students who wish to submit medical certificates in support of their petitions must ask their physician: to verify that the student was examined at the time of the illness; to state the degree of disability involved; to indicate the duration of the disability caused by the illness; and to indicate the physician's professional opinion as to whether the student should receive special consideration with his or her academic work on medical grounds.

4. Students are encouraged to seek advice from counsellors in Counselling Services before entering a petition.

5. Students are notified in writing of the Sub-committee's decision on their petition.

Requests for special consideration in a course

Term work

1. Students who are unable to write a term examination, or whose performance is adversely affected by illness or other extenuating circumstances, or who are unable (for these reasons) to submit term assignments by instructors' deadlines, must (except as noted below) speak with their instructor as soon as possible to request special consideration.

2. Students who wish to appeal the decision of their instructor with respect to a request for special consideration, must, as soon as possible, speak with or write to the Chair of the Division offering the course.

3. Where students' medical problems or other extenuating circumstances occur towards the end of the term, and where they must request extensions of time to submit term assignments or permission to write make-up term examinations after the last day for submission of term work (shown in the 'Academic Course of Study' at Scarborough Sub-committee on Standing), students must submit a formal petition to the Sub-committee on Standing. The petition must be submitted as soon as possible and no later than the last day of the relevant examination period.

4. Extensions of time to complete term work allowed by petition are noted on the student's transcript.

Final examinations

1. Students who, for reasons of illness or other extenuating circumstances, are unable to write a final examination, may request special consideration by means of a petition to the Sub-committee on Standing. Such petitions must be submitted as soon as possible and no later than the last day of the examination period.

2. When an examination has been missed because of illness, a student who requests special consideration must submit a medical certificate (see Petitions, 1, above) verifying in addition that:
   - the student was incapable of attempting the examination at the scheduled time.
   - the examination has been missed because of domestic affliction or other extenuating circumstances, a student must submit appropriate documentation from a professional such as a social worker or lawyer, stating the nature and extent of the problem and certifying that the student was incapable of attempting the examination at the scheduled time.

3. Where students suffer illness or domestic affliction that does not prevent their writing an examination, they are required to attempt the examination. If, after receipt of their final grade (AP course grades are posted in the Meeting Place early in the second term and a complete statement of results is mailed to students at the end of the session) they believe that their performance has been adversely affected by the illness or other problem, students may then request special consideration by means of a petition to the Sub-committee on Standing.

4. The Sub-committee on Standing accepts the validity of a petition, students will normally be allowed to write another examination. Students who are convinced that their performance may be affected by illness should visit a physician on the day of the examination to obtain both medical assistance and a medical certificate that may be submitted if a petition proves to be necessary. millions of this section should be as soon as possible, but no later than:

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<th>Summer Sessions:</th>
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<td>B, L, S &amp; Y courses</td>
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<td>A &amp; F courses</td>
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Final examinations
Students who believe that an error may have occurred in the calculation of their final examination mark may, within six months of the relevant examination period:
1. request from the Registrar’s Office a photocopy of their final examination. A non-refundable copying fee is charged at the time of the request.
2. request a recheck of the calculation through the Registrar’s Office (see “Final grade” below). It is not necessary to purchase a copy of the examination to make a request for recalculations.

Final grade
Students who believe an error has occurred in the calculation of their final grade, may, within six months of the relevant examination period, submit through the Registrar’s Office, a request for a check of the calculation of the grade. A fee is required at the time of the request. Any examination in the course will be checked to be sure that all answers have been marked and that all marks have been added correctly; the calculation of the final grade will be checked. If an error is discovered with the result that the student’s final letter grade in the course is changed, the rechecking fee will be refunded. Where the grade is changed, the amended grade will stand whether it is higher or lower than the original grade. (The check is arithmetic only. For appeals based on assignments graded on course work, see “Petitions of marks in a course” below.) Instructors are required to re-read the final examination (if any) and to recheck the calculations of term and final marks before submitting a failing grade for any student.

Petition of marks in a course
Term Work
1. Students who wish to petition their grade on a term examination, an essay or another term assignment, must speak with the course instructor as soon as possible, and certainly before the end of term.
2. Students who wish to appeal the decision of an instructor with respect to the grading of term work may speak with or write to the Chair of the Division offering the course.

3. Students who wish to appeal their grade on term work returned to students only after the end of term (that is, after the instructor assigned the grade for the course), may enter a formal petition to the Sub-committee on Standing. See above for information about the petition procedure. Petitions must be entered within six months of the final examination period and will be treated in the same way as requests for re-reading of a final examination (see below).

4. Students may request from the Registrar’s Office a photocopy of their final examination within six months of the relevant examination period. A non-refundable copying fee is required at the time of the request.
5. After students have seen the photocopy of their final examination but within six months of the relevant examination period, they may submit a petition to the Sub-committee on Standing to request re-reading of their final examination. The Sub-committee will authorize a re-reading only where a student:
   - has articulated clear grounds for reconsideration of some part of the examination, addressing the substance of the answer in relation to the mark given; or, otherwise identifying the nature of the alleged misvaluation;
   - has demonstrated that the alleged misvaluation is of a material nature: that is, that, in an objective answer, a correct answer has been counted as incorrect; or, that, in a subjective or essay answer, the response has been under evaluated substantially;
   - in the case of a re-reading of an examination or item of term work, the amended grade will stand, whether it is higher or lower than the original grade.
6. Instructors are required to re-read the final examination (if any) and to recheck the calculation of term and final marks before submitting a failing grade for any student.

Petitions concerning grading practices in a course
1. Students who believe an instructor has violated a rule of the Grading Practices Policy must discuss this complaint with the instructor, at the very least, no later than the fourth week of classes for violations relating to the announced schedule of assignments and the marking scheme, and no later than the end of the final examination period for violations relating to changes in or divergence from the announced marking scheme.
2. If this discussion does not yield a satisfactory resolution to the problem, students may appeal the decision of the instructor to the Chair of the Division offering the course.
3. If the appeal does not yield a satisfactory resolution to the problem, students may appeal the decision of the Chair of the Division to the Principal of the College.
4. Students who wish to withdraw from a course after the last day to withdraw without academic penalty on the grounds that the Grading Practices Policy was violated must also submit a petition to the Sub-committee on Standing. It is the responsibility of the Grading Practices Policy to ensure that it is found that the Grading Practices Policy was violated, no record of registration in the course is shown on the student’s transcript.

Petitions to correct errors in course registration or for withdrawal from courses
Petitions to correct errors in course registration or for withdrawal from courses should be submitted as early as possible, no later than:
- 30 time for Winter Session courses
- 30 business days before Summer Session courses

If the request to withdraw from a course is granted, the course will remain on the student’s transcript with a final grade of WDR to indicate that the student was allowed to withdraw from it after the relevant deadline without academic penalty.
Academic appeals

Students may appeal a decision of the Sub-committee on Standing to the Sub-committee on Academic Appeals. An appeal to the Sub-committee on Academic Appeals must be commenced no later than six months after the decision (to be appealed) has been communicated to the student. An appeal is commenced by filing a notice of appeal (on an appropriate form) through the Office of the Vice-Principal and Vice-President of the College. Full information may be obtained from that office.

The Academic Appeals Committee of the Governing Council

Students 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 sixty days after the decision (to be appealed) has been communicated in writing to the student. An appeal is commenced by filing a notice of appeal (on an appropriate form) to the Secretary of the Appeals Committee. Full information may be obtained from the Secretary to the Appeals Committee, Office of the Governing Council Secretariat, Room 108, Simon Hall, St. George Campus, telephone (416) 978-8794.

Code of behaviour on academic matters

A. Preamble

The concern of the Code of Behaviour on Academic Matters is with the responsibilities of all parties to the integrity of the teaching and learning relationship. Honesty and fairness must inform this relationship, whose basis remains one of mutual respect for the aims of education and for those ethical principles which must characterize the pursuit and transmission of knowledge in the University.

What distinguishes the University from other centres of research is the central place which the relationship between teaching and learning holds. It is by virtue of this relationship that the University fulfills an essential part of its traditional mandate from society, and, indeed, from history: to be an expression of, and by so doing to encourage, a habit of mind which is discriminating at the same time it remains curious, which is at once equitable and audacious, valuing openness, honesty and courtesy before any private interests.

This mandate is more than a mere pious hope. It represents a condition necessary for free inquiry, which is the University's life blood. Its fulfillment depends upon the well being of that relationship whose parties define one another's roles as teacher and student, based upon differences in expertise, knowledge and experience, through bonds 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, too, with the responsibilities of faculty members and students, not as they belong to administrative or professional or social groups, but as they co-operate in all phases of the teaching and learning relationship.

Such co-operation is threatened when teacher or student forsakes respect for the other - and for others involved in teaching - in favour of self-interest, when truth becomes a hostage of expediency. On behalf of teacher and student and in fulfillment of its own principles and ideals, the University has a responsibility to ensure that academic achievement is not obscured or undermined by cheating or misrepresentation, that the evaluative process meets the highest standards of fairness and honesty, and that whatever or even malicious disruption is not allowed to prevent the educational process.

These are means in which teacher and student necessarily share a common interest as well as common responsibilities.

B. Offences

The University and its members have a responsibility to ensure that a climate which encourages, or conditions which might enable, cheating, misrepresentation or unfairness not be tolerated. To this end all must acknowledge that seeking credit or other advantages by fraud or misrepresentation, or seeking to disadvantage others by disruptive behaviour is unacceptable, as is any dishonesty or iniquity in dealing with the work or record of a student.

Wherever in this Code an offence is described as depending on "knowing", the offence shall likewise be deemed to have been committed if the person ought reasonably to have known.

B.1. It shall be an offence for a student knowingly:

(a) to forge or in any other way alter or falsify any document or evidence required by the University, or to utter, circulate or make use of any such forged, altered or falsified document, whether the record be in print or electronic form;

(b) to use or possess an unauthorized aid or add or obtain unauthorized assistance in any academic examination or term test or in connection with any other form of academic work;

(c) to pervert another person, or to have another person pervert, at any academic examination or term test or in connection with any other form of academic work;

(d) to represent as one's own any idea or expression of an idea or work of another in any academic examination or term test or in connection with any other form of academic work, i.e. to commit plagiarism;

"Plagiarism" means the presentation of another's work as one's own or in such a way that it is not apparent that the material is not the student's own work. Plagiarism is more than a perversion of originality and a denial of the interdependence of humanity, which are the heart of scholarship itself, and hence of the academic experience. Instructors should make clear what constitutes plagiarism within a particular discipline.

(e) to submit, without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course or program of study of the University or elsewhere;

(f) to submit any academic work containing a purported statement of fact or reference to a source which has been concealed.

2. It shall be an offence for a faculty member knowingly:

(a) to approve any of the previously described offences;

(b) to evaluate or forward an application for admission or transfer to a course or program of study by reference to any criterion that is not academically justified;

(c) to evaluate academic work by a student by reference to any criterion that does not relate to its merit, to the time within which it is to be submitted or to the manner in which it is to be performed.

3. It shall be an offence for a faculty member and student alike knowingly:

(a) to forge or in any other way alter or falsify any academic record, or to utter, circulate or make use of any such forged, altered or falsified record, whether the record be in print or electronic form;

(b) to receive in any form of cheating, academic dishonesty or misrepresentation not herein otherwise described, in order to obtain academic credit or other academic advantage of any kind.

4. A graduate of the University may be charged with any of the above offences committed knowingly while he or she was an active student, when, in the opinion of the Provost, the offense, if detected, would have resulted in a sanction sufficiently severe that the degree would not have been granted at the time that it was.
B. 2. Parties to Offences
1. (a) Every member is a party to an offence if he knowingly:
(i) actually commits it;
(ii) does or omits to do anything for the purpose of assisting another member to commit the offence;
(iii) does or omits to do anything for the purpose of assisting or assisting another person who, if that person were a member, would have committed the offence.
(iv) abet, counsels, procures or conspires with another member to commit or be a party to an offence;
(v) abet, counsels, procures or conspires with any other person who, if that person were a member, would have committed or have been a party to that offence.
(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.
2. Every member who, having an intent to commit an offence under this Code, does or omits to do anything for the purpose of committing that offence (other than mere preparation to commit the offence), is guilty of an attempt to commit the offence and liable upon conviction for the same sanctions as if he or she had actually committed the offence.
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 Division, shall, if so directed, authorized or participated in the commission of the offence, be a party to and guilty of the offence and is liable upon conviction to the sanctions provided for the offence.
C. Procedures in cases involving students
At both the divisional level and the level of the University Tribunal, the procedures for handling charges of academic offences involving students reflect the gravity with which the University views such offences. At the same time, these procedures and those which ensure students the right of appeal represent the University's commitment to fairness and the cause of justice.
C.1(a) Divisional Procedures
Note: If a student commits an offence, the faculty in which the student is registered has responsibility over the student in the matter. In the case of Scarborough and Erindale Colleges, the college is deemed to be the faculty.
1. No bearing within the meaning of Section 2 of the Statutory Powers Procedure Act is required for the purposes of, or in connection with, any of the discussions, meetings and determinations referred to in Section C.1(a), and such discussions, meetings and determinations are not proceedings of the Tribunal.
2. Where an instructor has reasonable grounds to believe that an academic offence has been committed by a student, the instructor shall inform the student immediately after learning of the act or conduct complained of, giving reasons, and advise the student to discuss the matter. Nothing the student says in such a discussion may be used or receivable in evidence against the student.
3. If after such discussion, the instructor finds that no academic offence has been committed, he or she shall 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 offence has been committed by the student, or if the student fails or neglects to respond to the invitation for discussion, the instructor shall make a report of the matter to the department chair or through the department chair to the dean [Vice-Principal and Vice-Dean]. See also Section C.1(b) 1."
5. When the dean (Vice-Principal and Vice-Dean) or the department chair, as the case may be, has been so informed, he or she shall notify the student in writing accordingly, provide him or her with a copy of the Code and subsequently afford the student an opportunity for making a statement of the matter. In the case of the dean [Vice-Principal and Vice-Dean] being informed, the chair of the department and the instructor shall be invited by the dean (Vice-Principal and Vice-Dean) to be present at the meeting with the student. The dean (Vice-Principal and Vice-Dean) shall conduct the interview.
6. Before proceeding with the meeting, the dean (Vice-Principal and Vice-Dean) shall inform the student that he or she is entitled to seek advice, or to be accompanied by counsel at the meeting, before making, and is not obliged to make, any statement or admission, but shall warn him that if he or she makes any statement or admission in the meeting, it may be used or receivable in evidence against the student in the hearing of any charge with respect to the alleged offence in question. The dean [Vice-Principal and Vice-Dean] shall also advise the student, without further comment or discussion, of the sanctions that may be imposed under Section C.1(b), and shall advise the student that in the case of the dean (Vice-Principal and Vice-Dean) not being obliged to impose a sanction but may instead request that the Provost lay a charge against the student. Where such advice and warning have been given, if any, made in such a way that the student was not advised or received in evidence against the student in any such hearing.
7. If the dean (Vice-Principal and Vice-Dean), on the advice of the department chair and the instructor, or if the department chair, on the advice of the instructor, subsequently decides that no academic offence has been committed and that no further action in the matter is required, the student shall be so informed in writing and the student's work shall be accepted for normal evaluation or, if the student was prevented from withdrawing from the course by the withdrawal date, he or she shall be allowed to do so. Thereafter, the matter shall not be introduced into evidence at a Tribunal hearing for another offence.
8. If the student admits the alleged offence, the dean (Vice-Principal and Vice-Dean) or the department chair may either impose the sanctions that he or she considers appropriate under Section C.1(b) or refer the matter to the dean [Vice-Principal and Vice-Dean] or Provost, as the case may be, and in either event shall inform the student in writing accordingly. No further action in the matter shall be taken by the instructor, the department chair or the dean (Vice-Principal and Vice-Dean) if the dean [Vice-Principal and Vice-Dean] imposes a sanction.
9. If the student is dissatisfied with a sanction imposed by the department chair or the dean [Vice-Principal and Vice-Dean], as the case may be, the student may refer the matter to the dean [Vice-Principal and Vice-Dean] or Provost, as the case may be, for reconsideration.
10. If the student does not admit the alleged offence, the dean [Vice-Principal and Vice-Dean] may, after consultation with the instructor and the department chair, request that the Provost lay a charge against the student. In such a case, the student may refer the matter to the dean [Vice-Principal and Vice-Dean] or Provost, as the case may be, for reconsideration.
11. Normally, decanal procedures will not be examined in a hearing before the Tribunal. A failure to carry out the procedures referred to in this Section, or any defect or irregularity in such procedures, shall not invalidate any subsequent proceedings before the Tribunal, unless the breach of these procedures was such a defect or irregularity resulted in a substantial wrong, detriment or prejudice to the accused. The chair shall inform the Tribunals at the opening of the hearing whether there is or is to be any objection to an alleged defect, failure or irregularity.
12. No degree, diploma or certificate of the University shall be conferred or awarded, nor shall a student be allowed to withdraw from a course from the time of the alleged offence until the final disposition of the accusation. However, a student shall be permitted to use University facilities while a decision is pending, unless there are valid reasons for the dean [Vice Principal and Vice-Dean] to bar him or her from a facility. When or at any time after an accusation has been reported to the dean [Vice Principal and Vice-Dean], he or she may cause a notation to be recorded on the student’s academic record and transcript, until the final disposition of the accusation, to indicate that the student is in a course and/or the student’s academic status is under review. A student upon whom a sanction has been imposed by the dean [Vice Principal and Vice-Dean] or the department chair under Section C.1(b) or who has been convicted by the Tribunal shall not be allowed to withdraw from a course so as to avoid the sanction imposed.

13. A record of cases disposed of under Section C.1(a) and of the sanctions imposed shall be kept in the academic unit concerned and may be referred to by the student [Vice Principal and Vice-Dean] or by the designee of the student who is responsible for the preservation of the sanction or sanctions to be imposed by the Tribunal, for any subsequent offence committed by the student. Information on such cases shall be available to other academic units upon request and such cases shall be reported by the dean [Vice Principal and Vice-Dean] to the Secretary of the Tribunal for use in the annual report to the Academic Board. The dean [Vice Principal and Vice-Dean] may contact the Secretary of the Tribunal for advice or for information on cases disposed of under Section C.1(b) hereof.

14. Where a proctor or invigilator, who is a faculty member, is prevented from believing that a student’s academic offence has been committed by a student at an examination or test, the proctor or invigilator shall so inform the student’s dean [Vice Principal and Vice-Dean] or department chair, as the case may be, who shall proceed as if he or she were an instructor, by analogy to the other provisions of this section.

15. In the case of alleged offences not covered by the above procedures and not involving the submission of academic work, such as those concerning surgery or uttered, and in cases involving cancellation, recall or suspension of a degree, diploma or certificate, the procedure shall be regulated by analogy to the other procedures set out in this section.

C.1(b) Divisional Sanctions

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.

2. If the student does not admit guilt, or if the department chair chooses, the matter shall be brought before the dean [Vice Principal and Vice-Dean].

3. The dean [Vice Principal and Vice-Dean] shall have the power to record any sanction imposed on the student’s academic record and transcript for such length of time as he or she considers appropriate. However, the 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 published by the Academic Board and attached to the Code as Appendix "C."

C.2(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.

2. Such a sanction shall be imposed only for minor offences and where the student has committed no previous offence;

3. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

4. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

5. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

6. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

7. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

8. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

9. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

10. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

11. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

12. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

13. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

14. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

15. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

16. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

17. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

18. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

19. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

20. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

21. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed.

22. Assignment of a grade of zero or a failure for any completed or uncompleted course or courses in respect of which any offence was committed;

23. 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;

24. 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. Except when a student is barred from the University in any way, and his or her record and academic transcript shall record such suspension permanently. Where a student has not completed a course or courses in respect of which an offence has not been committed, withdrawal from the course or courses without academic penalty shall be allowed;

25. Assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;

26. Assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;
(ii) cancellation of academic standing or academic credits obtained by a student who, while enrolled, committed an offence which, if detected before the granting of the degree, diploma, certificate, standing or credits would, in the judgment of the Tribunal, have resulted in a revocation 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 that any sanction imposed by the Tribunal be recorded on the student's academic record and transcript for such length of time as the panel considers appropriate.

3. The Tribunal may, if it considers it appropriate, report any case to the Provost who may publish a notice of the decision of the Tribunal and the sanction or sanctions imposed in the University newspaper, 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 bound to a division of the University for the period of their registration in the academic program to which they have been admitted and as such assume the responsibilities that such registration entails.

2. As an academic community, the University governs the activities of its members by standards which are those contained in the Code of Behaviour on Academic Matters, which provides definitions of offences that may be committed by student members of the University 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 and off campuses and away from them. These activities, although generally separate from the defined requirements of students' academic programs, are a valuable and important part of the life of the University and of its students.

4. The University does not stand in loco parentis to its student members, that is, it has no general responsibility for the moral and social behaviour of its students, as if they were its wards. In the exercise of its disciplinary authority and responsibility, the University treats students as free to organize their own personal lives, behaviour and associations subject only to the law and to University regulations that are necessary to protect the integrity and safety of University activities, the peaceful and safe enjoyment of University housing by residents and neighbours, or the freedom of members of the University to participate reasonably in the programs of the University and in activities on or on the University's premises. In general, the University does not participate in the conduct of extracurricular activities by the University or the student members of the University that are not necessary or appropriate.

5. University members are not, as such, immune from the criminal and civil laws of the state political units to which they belong. Provisions for non-academic discipline should not be construed to absolve students from their civic responsibilities nor add unnecessarily to those responsibilities. Conduct that constitutes a breach of the Criminal Code or other statute, or that would give rise to a civil claim or action, should ordinarily be dealt with by the appropriate criminal or civil court. In cases, however, in which criminal or civil proceedings have not been taken or would not adequately protect the University's interests and responsibilities as defined below, proceedings may be brought under a discipline code of the University, but only in cases where such internal proceedings are appropriate in the circumstances.

6. The University must define standards of student behaviour and make provisions for student discipline with respect to conduct that jeopardizes the good order and proper functioning of the academic and non-academic programs and activities of the University or its divisions, that endangers the health, safety, rights or property of its members or visitors, or that adversely affects the property of the University or bodies related to it, where such conduct is not, for the University's defined purposes, adequately regulated by civil and criminal law.

7. Nothing in this Code shall be construed to prohibit peaceful assemblies and demonstrations, lawful picketing, or to inhibit freedom of speech as defined in the University.

8. In this Code, the word "premier" includes lands, buildings and grounds.

9. In this Code, "student" means a member of the University i) engaged in any academic work which leads to the recording and/or issue of a mark, grade or statement of performance by the appropriate authority of the University or another institution; and/or ii) registered in any academic course which entitles a member to the use of a University library, library materials, library resources, computer facility or data set; and/or iii) who is a post-doctoral fellow.

10. In the following, the term "University" refers to the University of Toronto and include any institutions federated or affiliated with it, where such inclusion has been agreed upon by the University and the federated or affiliated institution, with respect to the premises, facilities, equipment, services, activities, students and other members of the federated or affiliated institution.

Note: The University of Toronto has agreed that, when the premises, facilities, equipment, services or activities of the University of Toronto are referred to in this Code, the premises, facilities, equipment, services and activities of the University of St. Michael's College, Trinity College and Victoria University are included.

11. In this Code, where an offence is described as depending on "knowing", the offence shall likewise be deemed to have been committed if the person ought reasonably to have known.

12. This Code is concerned with conduct that the University considers unacceptable. In the case of student members of the University, the procedures and sanctions described herein shall apply. In the case of other members of the University, such conduct is to be dealt with in accordance with the established policy, procedures and agreements that apply to the members.

B. Offences

The following offences constitute conduct that shall be deemed to be offences under this Code, when committed by a student of the University of Toronto, provided that such conduct i) has not been dealt with as failure to meet academic requirements or conduct as required by a college, faculty, or department; and ii) is not specifically assigned to the jurisdiction of the University Tribunal, as in the case of offences described in the Code of Behaviour on Academic Matters, or to another disciplinary body within the University of Toronto, as in the case of sexual harassment as described in the Code of Behaviour on Sexual Harassment; and iii) except as otherwise provided herein, occurs on premises of the University of Toronto or elsewhere in the course of activities sponsored by the University of Toronto or by any of its divisions.
1. Offences against persons

a) No person shall assault another person actually or threaten any other person with sexual assault.

b) No person shall, directly or indirectly, threaten another person, threaten any other person with bodily harm, or knowingly cause any other person to fear bodily harm.

c) No person shall knowingly create a condition that unnecessarily endangers the health or safety of other persons.

d) No person shall threaten any other person with damage to such person’s property, or knowingly cause any other person to fear damage to her or his property.

e) No person shall engage in a course of vexatious conduct - that is directed at one or more specific individuals, and - that is based on the race, ancestry, place of origin, colour, ethnic origin, citizenship, 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 vexatious, and - that exceeds the bounds of freedom of expression or academic freedom as these are understood in University policies and practices, including but not limited to the Ontario Human Rights Code.

NOTE: Those in this section are to be understood as they are defined or used in the Ontario Human Rights Code.

f) (i) No person shall, by engaging in the conduct described in subsection (e) below, - threaten the premises of the University or away from the premises of the University, - cause any person or persons to fear for their safety or the safety of another person known to them while on the premises of the University or the activities sponsored by the University, or - at 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 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 (i) 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) in a threatening and harassing manner, watching the dwelling house, or place where the other person, or anyone known to them, resides, works, carries on a 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, threat or otherwise, a disturbance that the member knows obstructs any activity organized by the University or any of its divisions, or the right of another member or members to carry on their legitimate activities, to speak or to associate with others.

For example, peaceful picketing or other activity outside a class or meeting that does not obstructly interfere with the communication inside, or impede access to the meeting, is an acceptable exercise of the right to freedom of assembly and speech, but being present at a meeting or blocking the access to an activity constitutes disruption.

3. Offences involving property

a) No person shall knowingly take, destroy or damage any property of the University of Toronto.

b) No person shall knowingly take, destroy or damage any physical property that is not her or his own.

c) No person shall knowingly destroy or damage information or intellectual property belonging to the University of Toronto or to any of its members.

d) No person, in any manner whatsoever, shall knowingly deface the inside or outside of any building of the University of Toronto.

e) No person, knowing the effects or property to have been appropriated without authorization, shall possess effects or property of the University of Toronto.

f) No person, knowing the effects or property to have been appropriated without authorization, shall possess any property that is not her or his own.

(g) No person shall knowingly create a condition that unnecessarily endangers or threatens destruction of the property of the University of Toronto or of any of its members.

4. Unauthorized entry or presence

No person shall, contrary to the expressed authorization of persons authorized to give such authorization, or with intent to damage or destroy the premises of the University of Toronto or damage, destroy or steal any property on the premises of the University of Toronto that is not her or his own, enter the premises 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 contrary to the expressed instruction of a person or persons authorized to give such instruction, or without just cause.

b) No person shall knowingly gain access to or use any University computer or internet or extranet or communications facility to which legitimate authorization has not been granted. No person shall use any such facility for any commercial, disruptive or unauthorized purpose. Appropriate use for University connections to external networks are described, for example, in the policy document "Appropriate Use Policy for the Object Network".

c) No person shall knowingly misuse, misplace, mislead, or render inoperable any stored information such as books, film, data files or programs from a library, computer or other information storage, processing or retrieval system.

6. False charges

No person shall knowingly or maliciously bring a false charge against any member of the University of Toronto under this Code.

7. Aiding in the commission of an offence

No person shall counsel, procure, conspire with or aid a person in the commission of an offense defined in this Code.

8. Refusal to comply with sanctions

No person found to have committed an offense under this Code shall refuse to comply with a sanction or sanctions imposed under the procedures of this Code.

9. Unauthorized possession or use of firearms or ammunition

No person other than a peace officer or a member of the Canadian Forces acting in the course of duty shall possess or use any firearm or ammunition on the premises of the University of Toronto without the permission of the officer of the University having authority to grant such permission.

Note: The President of the University or another senior officer designated by the President has been given the authority to grant such permission for the premises of the University of Toronto under the authority of the Governing Council of the University. The President has designated the Vice-President, 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 leader or leaders of the division, to investigate complaints made against student members of that division. Investigating Officers shall hold office until their successors are appointed.

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 before the senior chair of the University Tribunal shall appoint another person as Hearing Officer for the particular case.

5. Where the head of the division has reason to believe that a non-academic offence may have been committed by a student member or members of the division, the Investigating Officer will conduct an investigation into the case. After having completed the investigation, the Investigating Officer shall report on the investigation to the head of the division. If the head of the division concurs, on the basis of this report, that the student or students may have committed an offence under the Code of Student Conduct, the head of the division shall have the discretion to request that a hearing be held to determine whether the student or students have committed the offence alleged.

6. The hearing will be chaired by the Hearing Officer. The case will be presented by the Investigating Officer, who may be assisted and represented by legal counsel. If the right to a hearing is waived, or after a hearing, the Hearing Officer will rule on whether the student or students have committed the offence alleged and may impose one or more sanctions as listed below. The accused student or students may be assisted and represented by another person, who may be legal counsel.

7. 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, whose 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 Appeals Board of the Governing Council.

9. Where the head of a division has reason to believe that a non-academic offence may have been committed by a group of students including students from this division and from another division or divisions, the head may consult with the head of the other division or divisions involved and may thereafter agree that some or all of the cases will be investigated jointly by the Investigating Officers of the divisions. The head of the division shall notify the students involved and that some or all of the cases will be heard together by the head(s) of 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. Formal written reprimand
2. Order for restitution, rectification or the payment of damages
3. A fine or bond for good behaviour not to exceed $100
4. Requirement of public service - work not to exceed 25 hours
5. Denial of access to specified services, activities or facilities of the University for a period of up to one year

The following two sanctions, which would directly affect a student's registration in a program, may be imposed only where it has been determined that the offence committed is of such a serious nature that the student's continued registration threatens the academic function of the University of Toronto or of any of its divisions or the ability of other students to continue their programs of study.

6. Suspension from registration in any course or program of a division or divisions for a period of up to one year
7. Recommendation for expulsion from the University

Use the Student Telephone Service (416) 872-8438 to:
- request courses
- make course changes
- check whether room is available in a course
- request graduation
- accept final grades

Use the World Wide Web:
http://www.ccrt.utoronto.ca/
- change your address
- change your PIN
- view your 911 transactions

Other Codes
Some parts of the University, such as the Library and the Computer Centre, have developed codes of their own to make clear in what respects precisely the Code of Behaviour on Academic Matters and the Code of Student Conduct apply in their areas. Students should be aware of the existence of these codes. They are equally binding on them.
### Telephone Directory: Frequently Called Numbers

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<td>Human Affairs</td>
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<td>Athletic Association (S.C.A.A.)</td>
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<td>Bookstore</td>
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<td>B-Wing</td>
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<td>Recruitment/Liaison</td>
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<td>Registrar's Office</td>
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<td>Enquiries (Registration, Transcript Request, Graduation)</td>
<td>287-7537</td>
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<td>Automated Telephone Course Registration Service</td>
<td>872-8638</td>
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<td>Admissions Scholarships and Re-enrolment</td>
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<td>Recessionist</td>
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