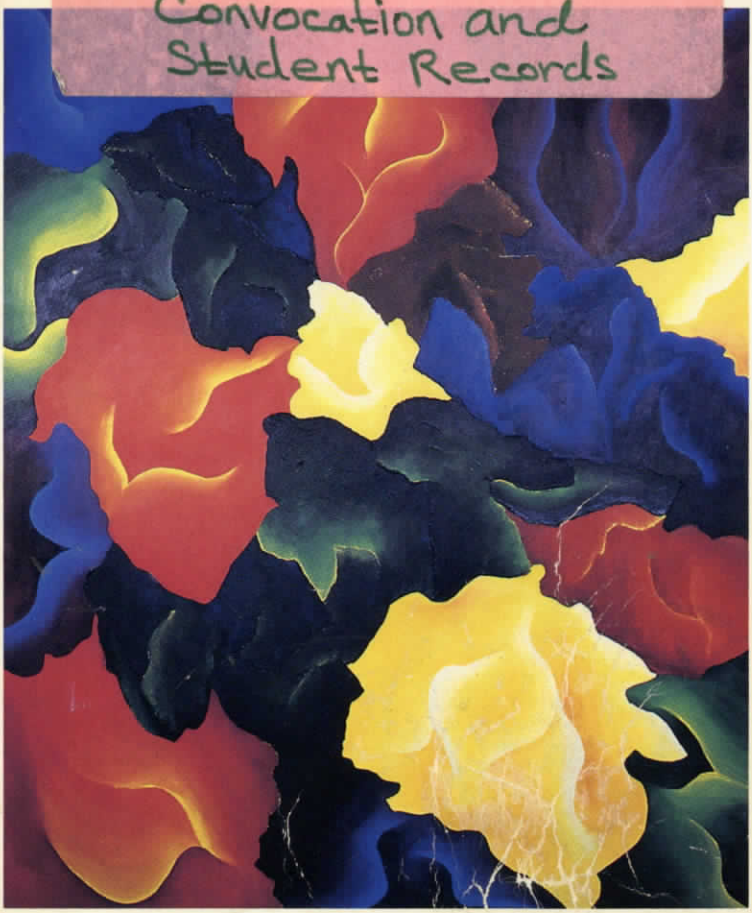
UTSC

RETURN TO: S415A
Convocation and
Student Records



1993-94

SCARBOROUGH COLLEGE
UNIVERSITY OF TORONTO

CALENDAR

1993-1994

University of Toronto

Scarborough College

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

1993/94

1265 Military Trail, Scarborough, Ontario, Canada, M1C 1A4 (416) 287-7550

Table of Contents

History of Scarborough College 4
Child care Centre 5
Academic Calendar 6
Officers of the University 8
Officers and Faculty of Scarborough College 8
Programmes of Study and Course Descriptions 15
Co-operative Programmes 50
Language Studies 131
Stradford Summer Seminars 205
General Interest Courses 17
Admissions 206
Awards 212
Academic Regulations 219
Part-time Studies 255
Telephone Directory 257
Index 258

Important Notices

1 **Changes in Programs of Study**
The programs 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 programs of study or withdraw them, all reasonably possible advance notice and alternative instruction will be given. The University, however, will not be liable for any loss, damages, or other expenses that such changes might cause.

2 **Changes in Courses**
For each program of study offered by the University through the Faculty (School, College), the courses necessary to complete the minimum requirements of the program will be made available annually. We must, however, reserve the right otherwise to change the content of courses, instructors and instructional assignments, enrolment limitations, prerequisites and corequisites, 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 programs to which they are admitted, and to strike a practicable balance between enrolment and available instructional resources. Sometimes such a balance cannot be struck and the number of qualified students exceeds the instructional resources that we can reasonably make available while at the same time maintaining the quality of instruction. In such cases, we must reserve the right to limit enrolment in the programs, courses, or sections listed in the *Calendar*, and to withdraw courses or sections for which enrolment or resources are insufficient.

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 A separate Calendar is published by the Faculty of Arts and Science and by Erindale College. Students are reminded that Scarborough College is a separate faculty of the University and that rules covering students at Scarborough College 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 the College's regulations in all respects.

10 ACADEMIC OFFENCES ARE A SERIOUS MATTER. See page 246.

11 The College has a fire safety plan. Copies are available from Physical Plant Services (S303).

12 The College has a No-Smoking Policy.

This is Scarborough College

Scarborough College, a constituent college of the University of Toronto, was established in 1964 to provide for the rapid growth in demand for undergraduate education foreseen for the later 1960's. Since that time it has grown from a modest beginning of ten evening courses in a local high school to a thriving campus where 220 faculty teach more than 700 courses to 5200 students.

The first 191 full-time Scarborough students enrolled in 1965. Classes began on the University's St. George campus that fall and moved to the new 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 both the R-wing which provided much needed additional classroom and office space, as well as a gymnasium and other sports facilities and the Student Village, a complex of townhouse residences with room for 260 students. In 1985 the original Student Village was expanded and in 1990 the West Village which includes some wheelchair-accessible houses opened. A total of 536 students can now be accommodated in residence on the Scarborough Campus.

In 1982, the Vincent W. Bladen Library, named in memory of a former member of the Economics faculty of Scarborough College, was added to the R-wing. The library has more than 200,000 books, as well as thousands of maps and periodicals and a media centre with recordings and fine art slides. The Soil Erosion Research Laboratory opened in 1989 and the N'Sheemaehn child care centre in 1990.

Originally an integrated part of the University's Faculty of Arts and Science, in 1972 Scarborough College became a separate arts and science division of the University of Toronto which allowed it 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. The programme in Administration was offered for the first time in 1975. Since then co-operative programmes have been added in Arts Administration, in Computer Science and Physical Science and in International Development Studies. The Physical Sciences Specialist programmes and the Education of Teachers in French Specialist Programme have been redesigned and, in cooperation with the Faculty of Education will include an Early Teacher Project component. Successful completion of the Early Teacher Project, together with the required academic standing will guarantee admission, on application to the Faculty of Education, for at least thirty students a year. Other special programmes include Neurosciences, Terrain and Environmental Earth Sciences, the Humanities and Women's Studies.
From the beginning faculty research and the training of graduate students have flourished at the College with Scarborough faculty also making an important contribution to the School of Graduate Studies through courses taught both here and on the St. George campus. The well-appointed research laboratories, the high level of technical services, the relatively small size of the College and the diversity of the faculty foster an ideal environment for intellectual pursuits both at the undergraduate and graduate level.

Scarborough students have full and up-to-date resources available on campus, such as the excellent library, laboratory and computer facilities, residences and recreational facilities. They may also, as full members of the University of Toronto, take advantage of the resources of the University as a whole. On the Scarborough Campus, they can take part in or simply enjoy concerts and drama presentations. Many distinguished guests come to the College to give lectures in the Snider series and the prestigious Watts lecture has attracted such notable names as Nobel Prize winner and former Prime Minister Lester Pearson, architect Raymond Moriyama, philosopher and theologian Hans Kung, scientist and television personality David Suzuki, union leader Bob White and Assembly of First Nations chief Georges Erasmus.

"N'sheemaehn:" The Scarborough Campus Child Care Centre

The name of the University of Toronto's newest child care centre, pronounced N-she-meh, comes from a native folktale in which the song of the chickadee (n'sheemaehn) reminds us to take good care of our little ones.

The centre, licensed for 46 children of students, staff, faculty and neighbourhood families, operates Monday to Friday 7:30 a.m. to 6:00 p.m. It is housed in a brand new building, officially opened October 10, 1990, and has already attracted praise both for its thoughtful design and fine programming and staff.

"N'sheemaehn" is a non-profit centre, managed by a parent/university board of directors. The board has developed a philosophy for the centre which emphasizes the provision of a warm, secure and loving environment for the children which will foster the development of each child's self-esteem, independence and self-control, while encouraging cooperation, consideration and empathy for others.

The centre has arranged for a purchase-of- service agreement with the municipal government to assist low-income families with the fees. As there is a very long wait for these subsidies, interested families are strongly advised to apply well in advance of the time child care will be needed. A child care bursary is available.

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

Academic Calendar/Summer Session 1993

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 and H courses).
April 5	Summer Session registration begins.
May 15	Last day for new students to apply for admission to the University for the Summer Session for courses beginning in July (B and S courses.)
May 17	Classes for Y, A, F and H courses begin.
May 21	Last day to add Y, A, F or H courses.
May 24	Victoria Day. University closed.
June 11	Last day to withdraw without academic penalty from A or F courses.
June 25	Last day of classes in A and F courses on the St. George and Erindale Campuses. Last day for submission of term assignments in St. George and Erindale Campus courses.
June 28-July 2	Reading Week for H and Y courses. Final examinations in A and F courses on the St. George and Erindale campuses.
July 1	University closed for Canada Day holiday.
July 2	Last day of classes in A and F courses at Scarborough College. Last day for submission of term assignments in these courses. Final examinations, if required, will be held in a class period of the last week.
July 5	Classes for B and S courses begin.
July 9	Last day to add B or S courses.
July 23	Last day to withdraw without academic penalty from Y or H courses.
July 30	Last day to withdraw without academic penalty from B or S courses.
August 2	Civic holiday. University closed.
August 13	Last day of classes for Y, B, H and S courses on the St. George and Erindale campuses.
August 16-August 20	Final examinations in Y, B, H and S courses on the St. George and Erindale campuses. Deferred examinations from April/May 1993.*
August 20	Last day of classes in Scarborough College courses. Last day for submission of term assignments. Final examinations, if required, will be held in a class period of the last week.
August 31	Last day to request conferment of degree at the Fall Convocation.

* For St. George deferred examinations see the Faculty of Arts and Science *Calendar*.

Academic Calendar/Winter Session 1993/94

1993

March 15	Winter Session registration begins.
June 1	Last day for new students to apply for admission to the University for part-time studies beginning in September.
September 6	Labour Day. University closed.
September 13	Classes for Y, A, F and H courses begin.
September 24	Last day to add Y, A, F or H courses.
October 11	Thanksgiving Day. University closed.
November 1	Bursary applications should be submitted by this date.
November 5	Last day to withdraw without academic penalty from F or A courses.
November 15	Christmas Examination Schedule published.
December 10	Last day of classes in the first term. Last day for submission of term assignments in F and A courses.
December 13-December 24	Term test and final examination period. Deferred examinations from August, 1993.*

1994

January 3	Classes for B and S courses begin.
January 14	Last day to add B or S courses.
February 11	Last day to withdraw without academic penalty from Y or H courses.
February 14-February 18	Reading Week - no classes held.
February 15	Last day to request conferment of degree at the June Convocation.
February 25	Last day to withdraw without academic penalty from B or S courses.
March 15	Annual Examination Schedule published.
April 1	Good Friday. University closed.
April 8	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, H, B or S courses.
April 11-April 15	Deferred examinations from December 1993.*
April 18-May 6	Final examination period.
June 6	University Spring Convocations are likely to begin.

* For St. George deferred examinations see the Faculty of Arts and Science *Calendar*.

Officers of the University of Toronto 1993/94

Chancellor
R. Wolfe, B.A.

Chairman, Governing Council
R.J. McGavin, B.P.E., M.Sc., Ph.D.

President
J.R.S. Prichard, M.B.A., LL.B., LL.M.

Vice-President and Provost
J.E. Foley, B.A., Ph.D.

Vice-President, Business Affairs and Chief Administrative Officer
B.P. Davies, B.Com, M.P.A.

Vice-President, Computing and Communications
C.D. Sadleir, B.A.Sc., M.A.Sc., Ph.D., P.Eng.

Vice-President, Department of Development and University Relations
G.C. Cressy, B.Sc., M.S.W.

Vice-President, Human Resources
M.G. Finlayson, B.A., M.A., Ph.D.

Vice-President, Research
J.F. Keffer, B.A.Sc., M.A.Sc., Ph.D., P.Eng.

Vice-Provost
C. Tuohy, B.A., M.A., Ph.D.

Vice-Provost, Health Sciences
A.R. Ten Cate, B.Sc., Ph.D., B.D.S.

Vice-Provost, Staff Functions
D.B. Cook, B.A., M.A., Ph.D.

Assistant Vice-President, Finance
R.G. White, C.M.A.

Asst. Vice-President, Operations/Services
J. Oliver, B.Com., M.Sc.

Assistant Vice-President (Planning) and University Registrar
D.W. Lang, B.A., M.A., Ph.D.

Assistant Vice-President, Research Relations & Technology Transfer
P. Munsche, B.A., M.A., Ph.D.

Assistant Vice-President, Student Affairs
W.D. Neelands, B.A., M.A., M.Div., Th.D.

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

Officers of Scarborough College 1993/94

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

Vice-Principal and Associate Dean
M.E. Irwin, M.A., Ph.D.

Chair, Division of Humanities
J. Warden, M.A.

Chair, Division of Life Sciences
J.W. Gurd, B.A., Ph.D.

Chair, Division of Management and Economics
S. Borins, B.A., M.P.P., Ph.D.

Chair, Division of Physical Sciences
J.M. Perz, B.A.Sc., M.A.Sc., Ph.D.

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

Registrar
D.J. Perry, B.S.B.A.

Dean of Students in Residence
G.P. Nagel, B.A., M.A., Ph.D.

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

Director of Co-operative Programmes
H. Wittmann, M.A., Ph.D.

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

Faculty of Scarborough College

Division of Humanities

Classics

J. Warden, M.A. (Cantab.), *Professor and Chair*
A. Boddington, B.A. (Oxon.), *Associate Professor*
J.H. Corbett, M.A., Ph.D. (Toronto), *Associate Professor*
M.E. Irwin, M.A., Ph.D. (Toronto), *Associate Professor*
I.R. McDonald, B.A. (Alberta) Ph.D. (N. Carolina), *Associate Professor*
W. Helleman, M.A. (Toronto), Ph.D. (Free University, Amsterdam), *Assistant Professor*

Cognitive Science

R.I. Binnick, M.A., Ph.D. (Chicago), *Professor*
J.M. Kennedy, B.Sc., M.Sc. (Belf.), PH.D. (Cornell), *Professor*
C.M. MacLeod, B.A. (McGill), Ph.D. (Washington), *Professor*
W.E. Seager, M.A. (Alberta), Ph.D. (Toronto), *Professor*
M.C. Smith, B.A. (Toronto), Ph.D. (MIT), *Professor*
A. Kukla, A.B., M.A., Ph.D. (UCLA), *Associate Professor*
M.A. Schmuckler, B.A. (Suny-Binghampton), Ph.D. (Cornell), *Assistant Professor*
S. Sedivy, B.A. (Toronto), Ph.D. (Pittsburgh), *Assistant Professor*
R. Smyth, B.A. (Carleton), M.Sc., Ph.D. (Alberta), *Assistant Professor*

Drama

H. Ohlendorf, A.M., Ph.D. (Stanford), *Associate Professor*
M.Q. Schonberg, M.A., Ph.D. (Toronto), *Associate Professor*
K. Theil, M.A., Ph.D. (Yale), *Associate Professor*
P. Sperdakos, M.A., Ph.D. (Toronto), *Assistant Professor*

English

J.M.R. Margeson, M.A., Ph.D. (Toronto), *Professor Emeritus*
R.M. Brown, M.A., Ph.D. (New York), *Professor*
W.J. Howard, M.A., S.T.B. (Toronto), Ph.D. (Leeds), *Professor*
M.C. Cuddy-Keane, M.A., Ph.D. (Toronto) *Associate Professor*
J. Kay, M.A. (Glasgow), M.A., Ph.D. (Pennsylvania), *Associate Professor*
A.J.G. Patenall, M.A. (McGill), Ph.D. (Birmingham), *Associate Professor*
M.S. Tait, M.A., Ph.D. (Toronto), *Associate Professor*
K. Theil, M.A., Ph.D. (Yale), *Associate Professor*
A.C. Thomas, M.A., Ph.D. (Toronto), *Associate Professor*
E.P. Vicari, M.A., Ph.D. (Toronto), *Associate Professor*
M. Gadpaille, M.A. (Western Ontario), Ph.D. (Toronto), *Assistant Professor*
G. Leonard, M.A. (Florida), Ph.D. (Florida), *Assistant Professor*
J. Matus, M.A. (Columbia), Ph.D. (Toronto), *Assistant Professor*

Fine Art

M. Gervers, M.A. (Poitiers), Ph.D. (Toronto), *Professor*
G. Scavizzi, M.A., Ph.D. (Turin), *Professor*
M.C. Shaw, M.A., Ph.D. (Bryn Mawr), *Professor*
R. Siebelhoff, M.A., Ph.D. (Toronto), *Associate Professor*
L. Carney, M.A. (Columbia), *Assistant Professor*
L. Varga-Gervers, M.A., Ph.D. (Budapest), *Assistant Professor*
A. Brannen, M.A. (New Mexico), B.F.A. (York, Canada), *Senior Tutor*
D. Holman, B.F.A. (Kansas City Art Inst.), *Senior Tutor*
J. Hoogstraten, B.F.A. (Manitoba), *Senior Tutor*

French

C. Bertrand-Jennings, L.és L. (Paris), Ph.D. (Wayne State), *Professor*
L.E. Doucette, B.A. (London), Ph.D. (Brown), *Professor*
W.J. Bancroft, M.A. (Manitoba), Ph.D. (Harvard), *Associate Professor*
J.A. Curtis, M.A., M.Phil. (Toronto), *Associate Professor*
W.J. Kirkness, M.A. (Auckland), Ph.D. (Besançon), *Associate Professor*
L.B. Mignault, B.A. (Toledo), Ph.D. (Colorado), *Associate Professor*
S. Mittler, M.A. (Toronto), Ph.D. (Strasburg), *Associate Professor*
C. Evans, M.A. (Rochester), Ph.D. (Toronto), *Senior Tutor*
F. Mugnier-Manfredi, M.A. (Lyon), Ph.D. (Grenoble), *Senior Tutor*

German
H. Wittmann, M.A., Ph.D. (Mass.), *Professor*
H. Ohlendorf, A.M., Ph.D. (Stanford), *Associate Professor*
U. Lesser-Sherman, M.A., Ph.D. (Pennsylvania), *Senior Tutor*

History
J.S. Moir, M.A., Ph.D. (Toronto), D.D. (Presb. College, Montreal), *Professor Emeritus*
M. Eksteins, B.A. (Toronto), B.Phil., D.Phil. (Oxon.), *Professor*
M. Gervers, M.A. (Poitiers), Ph.D. (Toronto), *Professor*
L.J. Abray, M.A. (McMaster) M.Phil., Ph.D. (Yale), *Associate Professor*
W.M. Dick, M.A. (Edinburgh), Ph.D. (Toronto), *Associate Professor*
E.W. Dowler, A.M. (Harvard), Ph.D. (London School of Economics), *Associate Professor*
J.L. Pearl, M.A., Ph.D. (Northwestern), *Associate Professor*
I.R. Robertson, M.A. (McGill), Ph.D. (Toronto), *Associate Professor*
A.N. Sheps, M.A., Ph.D. (Toronto), *Associate Professor*
F. Iacovetta, M.A., Ph.D. (York, Canada), *Assistant Professor*

Humanities
R.I. Binnick, M.A., Ph.D. (Chicago), *Professor*
W.C. Graham, M.A., Ph.D. (Toronto), *Professor*
P.R. León, M.A., Ph.D. (Cornell), *Professor*
C.V. Ponomareff, M.A., Ph.D. (Toronto), *Professor*
R. Skyrme, B.A., M.Litt. (Bristol), M.A., Ph.D., (Michigan) *Professor*
J. Warden, M.A. (Cantab.), *Professor and Chair*
H. Wittmann, M.A., Ph.D., (Mass.) *Professor*
W.J. Bancroft, M.A. (Manitoba), Ph.D. (Harvard), *Associate Professor*
H. Ohlendorf, A.M., Ph.D (Stanford), *Associate Professor*
M.Q. Schonberg, M.A., Ph.D. (Toronto), *Associate Professor*
P.D. Gooch, M.A., Ph.D. (Toronto), *Assistant Professor*
C. Evans M.A. (Rochester), Ph.D. (Toronto), *Senior Tutor*

Italian
A. Franceschetti, Dott. in Lett. (Padua), Ph.D. (Columbia), *Professor*
D. McAuliffe, A.B. (St. Peter's, New Jersey), Ph.D. (New York), *Associate Professor*
J.A. Campana, B.A., M.A., Ph.D. (Toronto), *Senior Tutor*

Linguistics
R.I. Binnick, M.A., Ph.D. (Chicago), *Professor*
D.M. James, M.A. (Cornell), Ph.D. (Michigan), *Associate Professor*
J.D. Woods, B.A. (Bowdoin Col.), Ph.D. (Mass.), *Associate Professor*
R. Smyth, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), *Assistant Professor*

Music
J. Mayo, G.T.C.L. (Trin. Coll. London) M.A., Ph.D. (Toronto), *Assistant Professor*
W. Bowen, B.A., B.A.Mus. (Carleton), M.A., Ph.D. (Toronto), *Assistant Professor*

Philosophy
P.W. Gooch, M.A., Ph.D. (Toronto), *Professor*
W.C. Graham, M.A., Ph.D. (Toronto), *Professor*
W.E. Seager, M.A. (Alberta), Ph.D. (Toronto), *Professor*
J.H. Sobel, M.A. (Iowa State), Ph.D. (Michigan), *Professor*
R.P. Thompson, M.A., Ph.D. (Toronto), *Professor*
D.B. Cook, M.A., Ph.D. (Toronto), *Associate Professor*
G.P. Nagel, B.A., M.A. (Simon Fraser), Ph.D. (Cantab.), *Associate Professor*
L. Lange, B.A., M.A. (Manitoba), Ph.D. (Toronto), *Assistant Professor*
S. Sedivy, B.A. (Toronto), Ph.D. (Pittsburgh), *Assistant Professor*
W.F. Freeman-Sobel, B.S., B.A. (Rice), *Lecturer*

Spanish
P.R. León, M.A., Ph.D. (Cornell), *Professor*
R. Skyrme, B.A., M.Litt. (Bristol), M.A., Ph.D. (Michigan), *Professor*
K. Gödde, B.A. (McGill), M.A. (N.Y.), Ph.D. (Toronto), *Senior Tutor*

Women's Studies
C. Bertrand-Jennings, L.és L. (Paris), Ph.D. (Wayne State), *Professor* (French)
R.P. Thompson, M.A., Ph.D. (Toronto), *Professor* (Philosophy)
L.J. Abray, M.A. (McMaster), M.Phil., Ph.D. (Yale), *Associate Professor* (History)

J. Boddy, M.A. (Calgary), Ph.D. (UBC), *Associate Professor* (Anthropology)
M.C. Cuddy-Keane, M.A., Ph.D. (Toronto), *Associate Professor* (English)
M.E. Irwin, M.A., Ph.D. (Toronto), *Associate Professor* (Classics)
D.M. James, M.A. (Cornell), Ph.D. (Michigan), *Associate Professor* (Linguistics)
M. Latta, M.A., Ph.D. (Toronto), *Associate Professor* (Anthropology)
A. Sev'er, B.A., M.A. (Windsor), Ph.D. (York, Canada), *Associate Professor* (Sociology)
L. Carney, M.A. (Columbia), *Assistant Professor* (Fine Art History)
K. England, B.A., P.G.C.E. (Leicester), M.A., Ph.D. (Ohio), *Assistant Professor* (Geography)
M. Gadpaille, M.A. (Western Ontario), Ph.D. (Toronto), *Assistant Professor* (English)
P-C Hsiung, B.A. (National Chun-sing University), M.A. (Chinese Cultural University), M.A. (California), Ph.D. (California), *Assistant Professor* (Sociology)
F. Iacovetta, M.A., Ph.D. (York, Canada), *Assistant Professor* (History)
L. Lange, B.A., M.A. (Manitoba), Ph.D. (Toronto), *Assistant Professor* (Philosophy)
J. Matus, M.A. (Columbia), Ph.D. (Toronto), *Assistant Professor* (English)
P. Sperdakos, M.A., Ph. D. (Toronto) *Assistant Professor*
D. McCarthy, B.A. (Toronto), *Senior Associate*
C. Guberman, B.A. (Manitoba), M. Ed. (York), *Lecturer*
A. Brannen, M.A. (New Mexico), B.F.A. (York, Canada), *Senior Tutor* (Fine Art Studio)
J. Hoogstraten, B.F.A. (Manitoba), *Senior Tutor* (Fine Art Studio)

Division of Life Sciences

Biology
J.C. Ritchie, B.Sc. (Aberdeen), Ph.D. (Sheffield), D.Sc. (Aberdeen), F.R.S.C., *Professor Emeritus*
F.A. Urquhart, B.A., M.A., Ph.D. (Toronto), *Professor Emeritus*
A.H. Weatherley, B.Sc. (Sydney), M.Sc. (Tas), Ph.D. (Glas), *Professor Emeritus*
G.R. Williams, B.Sc., Ph.D., D.Sc. (Liverpool), F.R.S.C., *Professor Emeritus*
R. Boonstra, B.Sc. (Calgary), Ph.D. (B.C.), *Professor*
I.R. Brown, B.Sc. (Carleton), Ph.D. (Texas), *Professor*
C.K. Govind, B.Sc. (Rhodes), M.Sc. (Natal), Ph.D. (Manitoba), *Professor*
J. W. Gurd, B.A. (Mnt.All.), Ph.D. (McGill), *Professor*
C. Nalewajko, B.Sc., Ph.D., D.Sc., (Univ. College London), *Professor*
J.C. Silver, B.Sc., Ph.D. (CUNY), *Professor*
D.D. Williams, B.Sc. (Univ. Coll. N. Wales), Dip.Ed. (Liverpool), M.Sc., Ph.D. (Waterloo), D.Sc. (Wales), *Professor*
J.H. Youson, B.A. (Victoria), M.Sc. (McGill), Ph.D. (Western), *Professor*
R.E. Dengler, B.Sc., Ph.D., (UCD), *Associate Professor*
M.F. Filosa, B.S. (St. Peter's), M.S. (Fordham), Ph.D. (Princeton), *Associate Professor*
G.F. Israelstam, B.Sc. (Witwatersrand), Ph.D. (Univ. College London), *Associate Professor*
J. M. Eadie, B.Sc.(Western), M.Sc. (Queen's), Ph.D. (B.C.), *Assistant Professor*
C. A. Hasenkampf, B.S. (Loyola), M.Sc., Ph.D. (Florida State), *Assistant Professor*
C. D. Riggs, B.Sc. (North Carolina), Ph.D. (Florida State), *Assistant Professor*
N. E. Williams, B.Sc. (Guelph), M.Sc. (Waterloo), Ph.D. (Toronto) *Assistant Professor*
C. Pickett, B.Sc., M.A. (Toronto), *Senior Tutor*

Psychology
J. Bassili, B.A. (McGill), Ph.D. (Cornell), *Professor*
G.B. Biederman, B.Sc. (CUNY), Ph.D. (NYU), *Professor*
G.C. Cupchik, B.A. (Mich.), M.A., Ph.D. (Wisc.), *Professor*
K.K. Dion, B.A. (Wellesley), Ph.D. (Minn.), *Professor*
J.E. Foley, B.A., Ph.D. (Syd.), *Professor*
B. Forrin, B.A. (Toronto), M.A., Ph.D. (Michigan), *Professor*
J.M. Kennedy, B.Sc., M.Sc. (Belf.), Ph.D. (Cornell), *Professor*
A. Kukla, A.B., M.A., Ph.D. (UCLA), *Professor*
C.M. MacLeod, B.A. (McGill), Ph.D. (Washington), *Professor*
N.W. Milgram, B.A. (U.Cal.), M.A., Ph.D. (McGill), *Professor*
T.L. Petit, B.S., M.A. (Louisiana), Ph.D. (Florida), *Professor*
M.C. Smith, B.A. (Toronto), Ph.D. (MIT), *Professor*
G.O. Ivy, B.A. (Drew), Ph.D. (Irvine), *Associate Professor*

F. Klajner, B.Sc. (McGill),, M.A. (Toronto), Ph.D. (Toronto), M.D. (Toronto), *Associate Professor*
J. R. Mendelson, B.Sc. (Toronto), Ph.D. (Dalhousie), *Assistant Professor*
M.A. Schmuckler, B.A. (Suny-Binghampton), Ph.D. (Cornell), *Assistant Professor*
S. B. Zeitlin, B.S. (UCLA), M.S. (CSULA), Ph.D. (UHS/CMS), *Assistant Professor*
D. A. Bors, B.A. (Florida), M.A. (Regina), Ph.D. (Toronto) *Senior Tutor*
G.A.J. Heighington, B.A. (Toronto), B. of Ed., *Senior Tutor*

Division of Management and Economics

Economics
L. Tarshis, B.A., M.A., Ph.D. (Cambridge), *Professor Emeritus*
A. Berry, B.A. (Western), Ph.D. (Princeton), *Professor*
J. Cohen, B.A. (Columbia), M.A., Ph.D. (California), *Professor*
S. K. Howson, B.A., M.Sc. (London), M.A., Ph.D. (Cambridge), *Professor*
M. Krashinsky, S.B. (M.I.T.), M. Phil., Ph.D. (Yale), *Professor*
S. Horton, B.A., M.A. (Cambridge), Ph.D. (Harvard), *Associate Professor*
W. Milne, B.A. (Victoria, B.C.), M.A. (Toronto), Ph.D. (Penn.), *Associate Professor*
I.C. Parker, B.A. (Manitoba), M.A. (Toronto), Ph.D. (Yale), *Associate Professor*
M. Baker, B.Comm. (Toronto), M.A. (York, Canada), Ph.D. (Michigan), *Assistant Professor*
J. Tenjo, B.A. (Un. Nacional de Columbia), M.A. (Brown), M.A., Ph.D. (Toronto), *Assistant Professor*
D. Trefler, B.A. (Toronto), M.A. (Cambridge), Ph.D. (Un. of California, L.A.), *Assistant Professor*

Management
O. Berman, B.A., S.M. (Tel Aviv University), Ph.D. (M.I.T.), *Professor*
S. Borins, B.A. (Harvard), M.P.P. (Kennedy School of Gov't.), Ph.D (Harvard), *Professor*
J. Rumsey, B.A. (California, Berkely), M.Sc. (Victoria), B.Ed. (Toronto), M.B.A., Ph.D. (York, Canada), *Assistant Professor*
A. Stark, B.A. (U.B.C.), M.Sc. (London), M.A., Ph.D. (Harvard), *Assistant Professor*
J.L. Xie, B.A. (People's, China), M.B.A., Ph.D. (Concordia), *Assistant Professor*
A. Stawinoga, B.A. (Toronto), M.B.A. (York, Canada), C.M.A., *Senior Tutor*
T. Litovitz, B. Comm. (Toronto), C.A., M.B.A. (York, Canada), *Senior Tutor*

Division of Physical Sciences

Astronomy
R.G. Carlberg, B.Sc., (Saskatchewan), M.Sc., Ph.D. (U.B.C.), *Professor*
C. Dyer, B.Sc., M.Sc., Ph.D., *Professor*
P.P. Kronberg, B.Sc., M.Sc., (Queens), Ph.D. (Manchester), *Professor*

Chemistry
A.J. Kresge, B.A. (Cornell), Ph.D. (Illinois), F.R.S.C., *Professor Emeritus*
R.A. McClelland, B.Sc., Ph.D., *Professor*
R. Morris, B.Sc. (Waterloo), Ph.D. (U.B.C.), *Professor*
T.T. Tidwell, B.S. (Georgia Inst. Tech.), Ph.D. (Harvard), *Professor*
A. Walker, B.Sc., Ph.D. (Nottingham), *Professor*
S. Fraser, B.A. (Oxford), Ph.D (Cambridge), *Associate Professor*
D.J. Donaldson, B.Sc. (Carleton), Ph.D (Carleton), *Assistant Professor*
K. Henderson, B.Sc., M.Eng., *Senior Tutor*
J. Potter, B.Sc. (Birmingham), M.Sc. (Windsor), *Senior Tutor*
A. Verner, M.Sc., M.Eng., *Senior Tutor*
W. Restivo, B.Sc., *Senior Tutor*
L. Teo B.Sc., B.Ed., (Singapore), *Senior Tutor*
N.E. Mitchell, B.Sc. (Guelph), *Tutor*

Computer Science
C. Dyer, B.Sc., M.Sc., Ph.D., Professor
W.H. Enright, B.Sc. (British Columbia), M.Sc., Ph.D., *Professor*
J. von zur Gathen, Ph.D. (Zurich), *Professor*
A. Mendelzon, B.S., M.S.E., M.A., Ph.D., (Princeton), *Professor*
V. Hadzilacos, B.A. (Princeton), Ph.D. (Harvard), *Associate Professor*
G. Hirst, B.A., B.Sc., M.Sc. (Anu, U.B.C.), Ph.D. (Brown U.), *Associate Professor*
G.J. Cupit, B.Sc. (U.B.C.), *Senior Tutor*
N. Cheng, B.Sc., *Tutor*

Environmental Science
R. B.Bryan, B.A. (Dublin), Ph.D. (Sheffield), *Professor*
N. Eyles, B.Sc. (Leicester), M.Sc. (NFLD), Ph.D. (East Anglia), D.Sc. (Leicester), *Professor*
B. Greenwood, B.Sc., Ph.D. (Bristol), *Professor*
J.A. Westgate, B.Sc. (Reading), Ph.D. (Alberta), *Professor*

K.W.F. Howard, B.Sc., M.Sc. Ph.D. (Birmingham), *Associate Professor*
A. G. Price, B.Sc. (Wales), M.Sc., Ph.D. (McGill), *Associate Professor*
N. E. Williams, B.Sc. (Guelph), M.Sc. (Waterloo), Ph.D. *Assistant Professor*
A. Mohajer, B.Sc. (Tehran), Ph.D (London), *Adjunct Associate Professor*
G.L. Moltyaner, M.Sc., Ph.D. (USSR), *Adjunct Professor*
R.T. Pybus, B.Sc. (Brock), *Special Lecturer*

Mathematics
E.W. Ellers, Ph.D. (Hamburg), *Professor*
J. Friedlander, B.Sc., M.A. (Waterloo), Ph.D. (Penn. State), F.R.S.C., *Professor*
S. Halperin, B.Sc., M.Sc., Ph.D. (Cornell), F.R.S.C., *Professor*
E. Mendelsohn, B.Sc., M.Sc. (Manitoba), Ph.D. (McGill), *Professor*
P. Selick, B.Sc., M.Sc., Ph.D. (Princeton), *Professor*
R.W. Sharpe, M.Sc., Ph.D. (Yale), *Professor*
J.B. Wilker, B.Sc., M.A. (British Columbia), Ph.D., *Professor*
R.O. Buchweitz, Ph.D. (Hanover), *Associate Professor*
J. Scherk, D.Phil., (Oxford), *Associate Professor*
J.C. Harris, M.S., Ph.D. (Chicago), *Assistant Professor*
W. D. McCuaig, B.Sc., M.Sc. (Simon Fraser), Ph.D. (Waterloo), *Assistant Professor*
S. Chawla, B.A. (Delhi), M.Sc. (McMaster), *Senior Tutor*
D. Hall, B.Sc., *Senior Tutor*
M. Horrigan, B.Sc., M.A., M.Sc., *Senior Tutor*
E. Moore, M.A. (Memorial), Ph.D., *Senior Tutor*
H.S. Rosenthal, B.Sc. (C.U.N.Y.), *Senior Tutor*
N. Shalaby, M.A. (York), *Tutor*
S. C. Tryphonas, M.Sc., *Tutor*

Physics
H.C. Corben, M.A., M.Sc. (Melbourne) Ph.D. (Cantab), *Professor Emeritus*
E. Fawcett, M.A., Ph.D. (Cantab), *Professor*
A. Griffin, M.Sc. (British Columbia), Ph.D. (Cornell), *Professor*
A. Jacobs, B.A.Sc., B.Sc. (Waterloo), Ph.D. (Illinois), *Professor*
J.D. King, B.A., Ph.D. (Saskatchewan), *Professor*
M.J.G. Lee, M.A., Ph.D. (Cantab), *Professor*
P.J. O'Donnell, B.Sc., Ph.D. (Glasgow), *Professor*
J.M. Perz, B.A.Sc., M.A.Sc. (Toronto), Ph.D. (Cantab), *Professor*
S. Quick, M.Sc., Ph.D. (Windsor), *Senior Tutor*
G. Lorincz, B.Sc., M.Sc. (Toronto), *Senior Tutor*

Statistics
M. Evans, B.Sc. (Western Ontario), M.Sc., Ph.D., *Professor*
S. Chawla, B.A. (Delhi), M.Sc. (McMaster), *Senior Tutor*

Division of Social Sciences

Anthropology
T.F.S. McFeat, B.A. (McGill), M.A., 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*
R.W. Shirley, M.A. (Stanford), Ph.D. (Columbia), *Professor*
J. Boddy, B.A. (McGill), M.A. (Calgary), Ph.D. (UBC), *Associate Professor*
G.S. Gillison, B.A. (McGill), Ph.D. (CUNY), *Associate Professor*
M. Latta, B.A. (Kansas), M.A., Ph.D. (Toronto), *Associate Professor*
L. Sawchuk, B.A., M.A. (Manitoba), Ph.D. (Toronto), *Associate Professor*
H.B. Schroeder, B.A. (Penn. State), Ph.D. (Columbia), *Associate Professor*
J. Thompson, B.A. (Queen's), M.A. (Trent), Ph.D. (Durham, UK), *Assistant Professor*

Geography
R.B. Bryan, B.A. (Dublin), Ph.D. (Sheffield), *Professor*
B. Greenwood, B.Sc., Ph.D. (Bristol), *Professor*
J.R. Miron, B.A. (Queen's), M.A. (Penn.), M.Sc., Ph.D. (Toronto), *Professor*
E. Relph, B.A., M. Phil. (London), Ph.D. (Toronto), *Professor*
M.F. Bunce, B.A., Ph.D. (Sheffield), *Associate Professor*
A.G. Price, B.Sc. (Wales), M.Sc., Ph.D. (McGill), *Associate Professor*
K. England, B.A. (Leicester), M.A., Ph.D. (Ohio State), *Assistant Professor*

Political Science
S.J. Colman, M.A. (Oxon.), *Professor Emeritus*
E.G. Andrew, B.A. (British Columbia), Ph.D. (London), *Professor*
R. Manzer, B.Ed. (New Brun.), M.A. (Oxon.), Ph.D. (Harvard), *Professor*
G. Skogstad, B.A., M.A. (Alberta), Ph.D. (British Columbia), *Professor*

S. Solomon, B.A. (McGill), M.A., Ph.D. (Columbia), *Professor*
R.S. Blair, M.A. (Glasgow), M.A. (Toronto), *Associate Professor*
D.B. Cook, M.A., Ph.D. (Toronto), *Associate Professor*
J. Esberey, B.Ed., B.A. (West. Australia), B.Sc. (London), M.A., Ph.D. (Toronto), *Associate Professor*
A. Rubinoff, A.B. (Allegheny), M.A., Ph.D. (Chicago), *Associate Professor*
J. Teichman, B.A., M.A., Ph.D. (Toronto), *Associate Professor*
P. Kingston, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), *Assistant Professor*
D. Welch, B.A. (Toronto), A.M., Ph.D. (Harvard), *Assistant Professor*

Sociology
R.L. James, M.A. (Wayne State) Ph.D. (Oregon), *Professor Emeritus*
W.W. Isajiw, B.A. (LaSalle), M.A., Ph.D. (Catholic Univ. of America), *Professor*
R. O'Toole, B.A. (Leeds), PGCE (London), M.A. (McMaster), Ph.D. (Toronto) *Professor*
J-L. de Lannoy, Sc. Soc. (Louvain), Ph.D. (California), *Associate Professor*
M. Hammond, B.A. (California), M.A., Ph.D. (Toronto), *Associate Professor*
J. Hannigan, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), *Associate Professor*
J.A. Lee, B.A., M.A. (Toronto), Ph.D. (Sussex), *Associate Professor*
A. Sev'er, B.A., M.A. (Windsor), Ph.D. (York, Canada), *Associate Professor*
J. Tanner, B.Sc. (Hons.) (University of London) PGCE (Leicester), M.A., Ph.D. (University of Alberta) *Associate Professor*
S. Ungar, B.A. (McGill), M.A., Ph.D. (York, Canada), *Associate Professor*
P-C Hsiung, B.A. (National Chun-sing University), M.A. (Chinese Cultural University), M.A. (California), Ph.D. (California), *Assistant Professor*

Vincent W. Bladen Library

Librarians
J.L. Ball, M.A., Dip. Lib., A.L.A.
J. Crichton Patterson, B.A., M.L.S.
A. Gregorovich, B.A., B.L.S.
L. Le, B.A., M.L.S.
M. Miller, B.A. Hon., M.L.S.
M. Wiederkehr, Dip. Trad., M.L.S.
P.H. Yamamoto, B.A., M.S.C. in L.S.

Programmes of Study and Course Descriptions

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

Specialist Programmes - Type of Degree
Anthropology* - B.A./B.Sc.
Arts - B.A.
Astronomy, Physics & Mathematics - B.Sc.
Biological Sciences - B.Sc.
Cell and Molecular Biology - B.Sc.
Chemistry - B.Sc.
Chemistry & Biochemistry - B.Sc.
Cognitive Science - B.Sc.
Computer Science - B.Sc.
Computer Science & Mathematics - B.Sc.
Computer Science & Physics. - B.Sc.
Computer Science & Statistics - B.Sc.
Computer Science for Data Management - B.Sc.
Drama - B.A.
Ecology &Evolution - B.Sc.
Economics - B.A.
Economics & History - B.A.
Economics & Mathematics - B.A.
Economics & Political Science - B.A.
English* - B.A.
Environmental Chemistry - B.Sc.
Environmental Earth Science - B.Sc.
Environmental Science - B.Sc. **
Fine Art History - B.A.
Fine Art Studio - B.A.
French - B.A.
Education of Teachers in French - B.A.
Geography - B.A./B.Sc.
History* - B.A.
Linguistics - B.A.
Management - B.A.
Management & Economics - B.Com.
Management & Economic Theory - B.Com.
Management & Language - B.A.
Mathematics - B.Sc.
Mathematics & Statistics - B.Sc.
Modern Languages - B.A.

Neuroscience - B.Sc.
Philosophy* - B.A.
Physical Sciences - B.Sc.
Political Science - B.A.
Psychology* - B.A./B.Sc.
Sociology* - B.A.

Major Programmes - Type of Degree
Anthropology* - B.A./B.Sc.
Astronomy & Physics - B.Sc.
Biochemistry - B.Sc.
Biological Sciences - B.Sc.
Chemistry - B.Sc.
Cognitive Science - B.Sc.
Drama - B.A.
Economics* - B.A.
English* - B.A.
Environmental Science - B.Sc. **
Fine Art History - B.A.
Fine Art Studio - B.A.
French Language - B.A.
French Language & Literature - B.A.
Geography - B.A./B.Sc.
German Language - B.A.
History* - B.A.
International Development Studies - B.A./B.Sc.
Italian Language - B.A.
Linguistics - B.A.
Mathematical Sciences - B.Sc.
Music History & Literature - B.A.
Neuroscience - B.Sc.
Philosophy* - B.A.
Political Science* - B.A.
Psychology* - B.A./B.Sc.
Sociology - B.A.
Spanish Language - B.A.
Women's Studies - B.A.

College Programmes - Type of Degree
Humanities - B.A.

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

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
Anthropology
Biological Sciences
Classical Studies
French
Geography
German Language
History
Italian
Linguistics
Modern Greek
Music History
Political Science
Psychology
Sociology*
Spanish
Women's Studies

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

** Pending approval of the Governing Council.

General Interest Courses

The following is a list of courses which are of a general interest nature and are designed to appeal to all students within the College. Please consult the discipline entry in the *Calendar* for course descriptions.

ASTB03S	Great Moments in Astronomy
BIOB01Y	Introduction to Biological Sciences
BIOB14F	Environmental Biology
BIOC70F	Theoretical Foundations of Biology I
BIOC71S	Theoretical Foundations of Biology II
CLAA01Y	Classical Civilization
CLAA02Y	Greek and Roman Mythology
CSCA06S	Computer Basics: Fundamental Concepts and Terminology
EESA05S	Geological Hazards
ENGA11Y	Reading Literature: The 20th Century
ENGB08Y	American Literature
ENGB10Y	Shakespeare
ENGB11Y	Varieties of Drama
ENGB14Y	Varieties of Fiction
ENGB25F/S	The Canadian Short Story
ENGB34F/S	The Short Story
ENGB50Y	Women and Literary Study
FARA91F/S	But Why Is It Art?
FARB49Y	Twentieth Century Art
FREB82F/S	Women and Literature in France
GERC01F/S	The Last Hundred Years
GRKB23F/S	Modern Greek Music
HISA02F/S	The Twentieth Century World
HUMA03Y	Prologue II
HUMB02Y	Introduction to Literature
ITAC71S	Italian Cinema
MGTA02Y	Introduction to Management
MUSA11F/S	Listening to Music
MUSA12F/S	Music of the World's Peoples
MUSB13F/S	Music for the Theatre
MUSB14S	Jazz
MUSB31F/S	Performing Arts of Asia
MUSB32F/S	The Classical Music and Culture of North India
PHLB05F/S	Social Issues
PHYA10F	Dynamics of Classical Systems
PHYA11S	Electromagnetism and Solid State Devices
SPAB15S	The Civilization of Spain II

Anthropology

Discipline Representative: J. Boddy (287-7281)

Anthropology is the study (or science) of humankind, dealing with the origin, development and nature of humans and their culture. As such it is concerned with human phenomena in the widest possible terms, both biological and cultural. It differs from other social sciences in its comparative and historical approach, and in its intimate links with the physical and natural sciences. Anthropology examines societies today and in the past, both complex civilizations and relatively small-scale non-literate societies. From this vantage point Anthropology attempts to 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 vastness of its subject matter, Anthropology is traditionally divided into four sub-fields: Social-Cultural Anthropology, Prehistoric Archaeology, Physical Anthropology and Anthropological Linguistics. At the present time, Scarborough College offers courses in the first three areas. Students interested in inquiring about appropriate course sequences in one of the sub- fields are invited to consult with one of the faculty in the appropriate sub-field and with the Supervisor of Studies.

Specialist Programme in Anthropology
Supervisor: L. Sawchuk (287-7347)

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 interested students a course structure of sufficient flexibility to follow their intellectual interests into the diverse yet holistic perspective on the human phenomena provided by Anthropology. All students are required to consult with the Supervisor concerning the selection of a course sequence appropriate to their interests and objectives.

The Programme requires completion of twelve full- course equivalents, no less than ten of which will be in Anthropology. Students must complete at least eight full-course equivalents in disciplines other than Anthropology within the four-year degree programme. The courses within the

Programme are to be selected as follows:

1 ANTA01Y Introduction to Anthropology
2 Two full-course equivalents from among the following:
ANTB15Y Biological Anthropology
ANTB20Y Social and Cultural Anthropology
ANTB11F Introduction to World Prehistory 1
ANTB12S Introduction to World Prehistory 2
3 Six full-course equivalents from the remaining B,C or D-level courses in Anthropology.
4 One full-course equivalent in a field methods or supervised reading and research course
ANTC03F
ANTC04S
ANTC12S
ANTC60S
ANTD31F
ANTD32S
5 At least 2 full-course equivalents in disciplines other than Anthropology must be agreed upon in consultation with the Supervisor.

Major Programme in Anthropology
Supervisor: L. Sawchuk (287-7347)
The Major Programme in Anthropology provides a course structure for those students desiring to expand upon or supplement other areas of academic interest by taking advantage of Anthropology's unique global, chronological and biological perspective on humankind.

The Programme requires completion of six full- course equivalents in Anthropology including:
1 ANTA01Y Introduction to Anthropology
2 One full-course equivalent from among the following:
ANTB15Y Biological Anthropology
ANTB20Y Social and Cultural Anthropology
ANTB11F Introduction to World Prehistory 1
ANTB12S Introduction to World Prehistory 2
3 Four additional full-course equivalents from B, C, or D-level courses in Anthropology, of which at least one must be at the C or D level.

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

Minor Programme in Anthropology
Supervisor: L. Sawchuk (287-7347)
The Minor Programme in Anthropology provides a course structure for students majoring or specializing in other disciplines who want some directed exposure to anthropological thought. The Programme requires completion of four full-course equivalents including:
1 ANTA01Y Introduction to Anthropology
2 at least one full course from among the following:
ANTB15Y Biological Anthropology
ANTB20Y Social and Cultural Anthropology
ANTB11F Introduction to World Prehistory 1
ANTB12S Introduction to World, Prehistory 2
3 two additional full-course equivalents in Anthropology, at least one of which must be at the C or D level.
Students are required to consult with the Supervisor regarding course selections, identification of potential intradisciplinary streams (social-cultural, physical, archaeological), and course requirements.

ANTA01Y Introduction to Anthropology
Telephone ID #: 00710163
An introduction to the fields of anthropology through which the student will obtain the anthropological view of the nature and diversity of humans. The first term deals with Physical Anthropology and Prehistoric Archaeology, concentrating on the biological basis and the evidence for the origins and growth of culture. The second term concerns the nature of language and the comparative aspects of Cultural Anthropology, through a study of social groups as well as economic, political and religious systems in both non-industrial and industrial societies. Lectures and tutorials.
Exclusion: ANT100
Session: Winter Day, Summer Evening
J. Thompson, M. Lambek

ANTB01Y The Ecological Perspective in Anthropology
Telephone ID #: 00720163
The interrelationship of human populations with their environment, particularly as reflected in differences in technology, socio-political organization, and ideology. Emphasis will be placed on the view which sees variability in human behaviour as the product of adaptation and evolutionary change.
Prerequisite: ANTA01
Session: Winter Day
H.B. Schroeder

ANTB11F Introduction to World Prehistory 1: Human Behaviour in the Old Stone Age
Telephone ID#: 00721133
The development of art, technology, religion and lifeways of hunters and gatherers living from two million to ten thousand years ago. Our intellect, interests, emotions, and basic social life are all in part evolutionary products of the success of hunting adaptations over this span of time. Issues to be considered include the nature of prehistoric technological innovation and social change and the reconstruction of ancient ideologies and ecological systems.
Prerequisite: ANTA01
Session: Winter Day
H.B. Schroeder

ANTB12S Introduction to World Prehistory 2: The Rise of Civilization
Telephone ID#: 00721253
Examination of the two major cultural developments of the past ten thousand years out of which emerged modern human societies: the agricultural and urban transformations. The course emphasizes the ecological-adaptive factors and the archaeological evidence bearing on the beginnings of permanent human settlements, the domestication of plants and animals, and the development of complex social and technological systems.
Prerequisite: ANTA01
Session: Winter Day
H.B. Schroeder

ANTB15Y Biological Anthropology
Telephone ID #: 00721563
A survey of the human place in nature: origin (Fall) and ongoing evolution (Spring). Basic to the course is an understanding of the synthetic theory of evolution and the principles, processes, evidence and application of the theory. Laboratory projects acquaint the student with the methods and materials utilized by the Physical Anthropologist. Specific topics include: the development of evolutionary theory, the biological basis for human variation, the evolutionary forces, human adaptability, primate biology, social organization and behaviour of non-human primates, taxonomy and classification, paleontological principles and human origins.
Exclusion: ANT203
Prerequisite: ANTA01 or permission of instructor.
Session: Winter Day
J. Thompson, L. Sawchuk

ANTB16Y Cultures of Modern Canada
Telephone ID#: 00721663
This course has two objectives: on the one hand, it explores the regional and ethnic diversity of contemporary Canadian cultures, and on the other, it examines forces which operate, however successfully, to bind Canadians together and foster a coherent world-view. The first objective entails consideration of localized case studies, e.g. of agriculturally based religious communities, Newfoundland outports, indigenous groups (Native Canadians and Metis), and others. The second involves searching for shared cultural meaning in Canadian literature, myth and symbolism, mass media, and political culture.
Prerequisite: ANTA01 or permission of instructor
Session: Winter Day
TBA

ANTB20Y Social and Cultural Anthropology
Telephone ID #: 00722063
Basic approaches to the understanding of social and cultural organization in societies of varying complexity but with emphasis on simpler societies. Comparative social institutions, especially kinship and marriage will be examined along with economic, political, legal and ritual elements. Some attention will also be given to belief systems and symbolic thought as well as sources of stability and change in society and anthropological perspectives on current social issues.
Exclusion: ANT204
Prerequisite: ANTA01 or permission of instructor.
Session: Winter Night
TBA

ANTB21Y Canadian Native Peoples
Telephone ID #: 00722163
Native peoples of Canada have won legal sanction for their traditional ways of life. With the entrenchment of these rights in federal and provincial law, it will become necessary to determine the nature of those traditions. This course examines the traditional cultures of Canadian native peoples through the media of archaeology, ethnohistory and oral tradition. Questions to be considered involve: the nature and source of political authority, the status and rights of women and off-reserve individuals,

definition of educational systems, enforcement mechanisms and the rights of the individual and the band to personal and collective freedom.
Prerequisite: ANTA01 or permission of instructor
Session: Winter Day
M. Latta

ANTB55Y Culture of the Middle East and the Islamic World
Telephone ID #: 00725563
The "Islamic World" includes a diversity of cultures, environments, and even languages. Yet all are united by bonds of a common faith that is itself a social system. This course examines similarities and variations among contemporary and traditional Muslim societies from an anthropological perspective, focussing primarily on peoples of the Middle East and North Africa.
Prerequisite: ANTA01 or permission of instructor.
Session Winter Day
J. Boddy

ANTC03F and ANTC04S Directed Reading in Anthropology
Telephone ID: 00730333 and 00730453
A directed exploration of specific topics in Anthropology, based on extensive investigation of the literature. 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: ANTA01 and one B-level full-course equivalent in Anthropology and permission of instructor.
Session: Winter Day, Winter Evening, Summer Evening
Members of Faculty

ANTC05Y 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 out of human dependence on such beings; and of magic, curing, witchcraft and sorcery. The course is concerned with the anthropological study of supernatural beliefs in small scale non-Western societies. Topics covered (time permitting) will be: the origin and function of religion; symbolism; myth; ritual; shaminism; magic; witchcraft; divination; death; ghosts; ancestor cults; and dynamics in religion. One two-hour session per week.
Exclusion: (ANTB02)
Prerequisite: ANTA01
Session: Winter Day
G. Gillison

ANTC10F Complex Societies: Anthropological Perspectives of Development
Telephone ID#: 00731033
A study of peasant and agrarian societies, in which special attention will be paid to problems of detribalization, urbanization, and personal adjustment, as well as to adaptation to urban situations and social control. The study will draw upon Third World Economic and social adjustments to new situations.
Exclusion: (ANTB17)
Prerequisite: ANTA01
Session: Summer Evening
TBA

ANTC12S Research on the Social Behaviour of Non-Human Primates I
Telephone ID#: 00741243
The purpose of this course is to study two forms of monkeys under very different circumstances: in Kowloon the monkeys are hybrid macaques, living near humans in wooded reserves - these are considered "urban" monkeys; in Guangxi, they are leaf-eating monkeys which live in the mountains in a national forest, where ecotourism is just beginning.
Oberservation is from dawn to dusk with time for transcription and analysis. There are guest lectures from local ethologists and wildlife conservators. Evaluation: an ethogram; field notes; log book; seminar presentations; assimilation exercise. This field trip begins in Mid-February and lasts for 10 days (including Reading Week). An additional fee of approximately $2000, depending on location, (currently China) will be charged to cover travel and accommodation. Students must arrange for instructor's permission and make a deposit by 1 November. For additional information, contact Professor F.D. Burton (tel. 287-7345/room H-424). Enrolment is limited to 10.
Prerequisite: ANTB22 (ANTC22) and permission of instructor
Session: Winter Day
F.D. Burton

ANTC16Y Human Origins
Telephone ID #: 00731663
The study of human origins has undergone a transformation in recent years. The science has benefitted from a series of unexpected fossil discoveries, and it has become willing to look at new approaches to answering major issues surrounding human evolution. While there is more question about the ways of knowing our past, there is also greater security that the questions being asked are answerable. This course will examine some of these, particularly the process of speciation, with specific reference to the emergence of Homo. While the fossils (casts) will be examined, there will be emphasis on the interpretations of the process of hominisation through the thoughts and writings of major workers in the field. Topics are set within their fossil and time contexts and include the emergence of bipedalism and opposability and their correlates, non-human primate social organization and demographic reconstruction, diet and foraging techniques, and "the origins" (for example, the use of fire; the development of language; the origin of consciousness). Two hours of lectures, two hours of labs.
Prerequisite: ANTA01 or permission of instructor.
Session : Winter Night
J. Thompson

ANTC32F Political Anthropology
Telephone ID#: 00733233
A general survey of the role of political systems in a largely "development' framework.
Exclusion: (ANTB32)
Prerequisite: ANTA01 or permission of instructor. ANTB20 recommended
Session: Winter Day
TBA

ANTC38Y Prehistory of North America North of Mexico
Telephone ID#: 00733863
An introduction to the establishment and diversification of native traditions in North America from a late Palaeolithic hunting base to the emergence of civilization in Mesoamerica. The course will focus on processes of cultural change and on archaeological methods of reconstructing the past. Primary attention will be paid to the civilizations of the eastern and southwestern United States. At the end of the course, a field trip to Ohio will permit students to obtain first-hand experience of the remains of the Hopewell moundbuilders, one of the most interesting early traditions in this region.
Prerequisite: ANTA01;
Session: Winter Day
M. Latta

ANTC40Y Anthropological Demography
Telephone ID#: 00734063
An examination of the biological, demographic, ecological and socio-cultural determinants of human and non-human population structure and the interrelationships among these determinants. Lecture topics include populations and societal strategies for survival and adaptation, population structure of small-scale and urban societies, and paleodemography and paleopathology.
Prerequisite: ANTA01. ANTB15 recommended
Session: Winter Day
L. Sawchuk

ANTC60S Fieldwork in Social and Cultural Anthropology
Telephone ID#: 00736053
This course describes how social-cultural anthropologists collect data and construct theory in the course of fieldwork. Students will be introduced to the fieldwork experience both through reading some of the classic descriptions of research in exotic societies and by designing and carrying out a small project or projects here in Toronto. We will cover such topics as the nature and uniqueness of the participant-observation method, note-taking and organization, emic and etic approaches, selecting informants/consultants, informal interviewing, and household surveys. We will also consider such problems as choosing a field site, entering and living in a foreign community, culture shock and cultural bias, and meeting the logistical and medical needs of the researcher.
Considerable attention will also be given to ethical issues such as confidentiality and reciprocity that arise in fieldwork. Limited enrolment: 20 with preference given to students in anthropology and international development studies.
Prerequisites: Any B-level full course equivalent in Anthropology or IDS or permission of instructor.
Session: Winter Day
TBA

ANTC61F Medical Anthropology; Illness and Healing in Cultural Perspective
Telephone ID#: 00736133
This course examines illness, health, and healing from a comparative cross-cultural perspective. It is composed of three overlapping topical areas: (1) the description and analysis of nonwestern ideas and practices; (2) the culture of North American illness and medicine, viewing biomedicine as an ethnomedical system

comparable to those described in (1);
(3) the development of culturally informed and socially responsible approaches to health problems in the Third World and at home.
The course considers such topics as: the social and symbolic aspects of the body, the life-cycle in cross-cultural perspective, the representation and popular explanation of illness, the logic of traditional healing systems and traditional practitioners such as shamans, the intersection of illness models and practices with gender, class, power, and social conflict, metal illness in comparative perspective, innovations in health care delivery systems.
Exclusions: (ANTB51), (ANTC51)
Prerequisite: ANTB20 or permission of instructor
Session: Winter Day
M. Lambek

ANTC62S Medical Anthropology; Biological and Demographic Perspectives
Telephone *ID#: 00736253*
The examination of health and disease in ecological and socio-cultural perspective. Emphasis is placed on variability of populations in disease susceptibility and resistance in an evolutionary context. With its sister course, ANTC61F, this course is designed to introduce students to the basic concepts and principles of medical anthropology. Principles of epidemiology, patterns of inheritance and biological evolution are considered. Specific topics include: the rise of infectious disease and urbanization, Tay sachs and World Jewry, paleopathology and paleodemography, as well as social change and childhood mortality in the urban environment.
Exclusion: (ANTC51) (ANTB51)
Prerequisite: ANTA01 or permission of instructor. ANTB15 is recommended
Session: Winter Day/Summer Evening
L. Sawchuk

ANTD11F The Concept of Race in Anthropology
Telephone ID#: 00741133
This lecture course focusses on the development of the construct "race" and its validity. The current casual use of this term derives from misunderstandings of its meaning, history, and scientific development. Within Anthropology, the term has been central to an ongoing debate about the origin, nature, and diversity of humankind. Two hours of lecture per week.
Exclusion: (ANTC43)
Prerequisite: ANTB15 or one C-level full course equivalent in Anthropology
Session: Winter Day
F.D. Burton

ANTD23S Ethnomedicine
Telephone *ID#: 00742353*
This seminar course focusses on the intersection of body, mind, and self in cross-cultural perspective. Particular attention will be paid to the analysis of symbols, ritual, and the meaningfulness of bodily experience; to issues of gender and power; and to the healing process. Limited enrolment: 20
Exclusion: (ANTC46)
Prerequisite: ANTC51 (ANTB51) or ANTC61 or permission of instructor. ANTC25 and ANTC11 are highly recommended.
Session: Winter Day
M. Lambek

ANTD31F and D32S Advanced Research in Anthropology
Directed critical examination of specific problems in Anthropology, based on library and/or field research. Individual tutorials, are arranged. In addition to course work to be decided by the instructor, one seminar presentation of the student's research findings is required.
Prerequisite: ANTA01 and one B-level full-course equivalent in Anthropology and permission of instructor
Session: Winter Day, Winter Evening, Summer Evening
Members of Faculty

Courses Not Offered in 1993-94

ANTB03F The Americas: An Anthropological Perspective

ANTB04Y Introduction to Archaeological Materials
Exclusion: ANTD03
Prerequisite: ANTA01, ANTB26 ia recommended as a corequisite

ANTB05F African Cultures and Societies I: Survey
Prerequisite: ANTA01 or Permission of Instructor

ANTB22Y Primate Behaviour
Exclusion: (ANTC22)
Prerequisite: ANTA01 or ANTB15 or PSYA01 or BIOA03

ANTB25F/S Human Nature: An Anthropological Inquiry
Prerequisite: ANTA01 or permission of instructor

ANTB49F/S Myth and Symbol
Prerequisite: ANTA01

ANTB54F/S Anthropology of Sex
Prerequisite: ANTA01; ANTB15

ANTC06F/S African Cultures and Societies II: Case Studies
Prerequisite: ANTB05

ANTC11Y The Anthropology of Women and Gender
Prerequisite: ANTA01 or WSTA01 or permission of instructor

ANTC13S Research on the Social Behaviour of Non-Human Primates II
Prerequisite: ANTB22 (ANTC22) and permission of Instructor

ANTC19F/S Economic Anthropology
Exclusion: ANT441
Prerequisite: ANTA01 or WSTA01 (JHSA01) or permission of instructor

ANTC25F/S Anthropology and Psychology
Prerequisite: ANTA01
Corequisite: ANTB20 and PSYB30 are recommended

ANTC26Y The Theory and Practice of Archaeology: An Introduction
Exclusion: ANT200
Prerequisite: ANTA01, (ANTB26)

ANTC35F/S Quantitative Methods in Anthropology
Exclusion: (ANTB43); ECOB11;PSYB07; SOCB06
Prerequisite: ANTA01; ANTB15 and ANTC26 (ANTB26) are recommended

ANTC37S Prehistory of Mexico and Mesoamerica
Exclusion: (ANTB37), ANT316
Prerequisite: ANTA01; ANTB03 and ANTB38 is receommended

ANTC41Y Human Adaptability
Exclusion: (ANTB44)
Prerequisite: ANTA01; or BIOA03; ANTB15 highly recommended

ANTC47Y Human Osteology
Prerequisite: ANTA01 or BIOA03; ANTC16 (ANTB14) and ANTB15 recommended

ANTC49F/S Law and Society
Prerequisite: ANTA01 or ANTB20 or permission of instructor

ANTC50F/S Death and Burial
Prerequisite: A B-level course in Anthropology

ANTC63F Anthropology of Food: Human Needs
Prerequisites:ANTA01 and one other B or C-level course in Anthropology

ANTC64S Anthropology of Food: Consuming Passions
Prerequisites:ANTA01 and one other B or C-level course in Anthropology

ANTD14Y New Perspective son Human Origins
Prerequisite: ANTB15 or one C-level course in Physical Anthropology

ANTD15S Frontiers of Anthropology
Exclusion: ANTB49
Prerequisite: Permission of instructor

ANTD16F/S Biomedical Anthropology
Exclsuion: (ANRC45)
Prerequisite: ANTC51 and one C-level full-course equivalent in Physical Anthropology

ANTD24F/S Theory and Methodology in Social/Cultural Anthropology
Exclusion: (ANTC16),(ANTC17)
Prerequisite: ANTA01 and ANTB20 or permission of instructor

Arts

Specialist Programme in the Arts
Supervisor: Janis Hoogstraten (287-7128)
The Specialist Programme in the Arts is designed for all those students with an active interest in the Arts. This programme will give the student a broad foundation in the areas of Fine Art, Music, and Drama while at the same time developing expertise in one of the areas. In addition, the more practical aspects of these areas can be studied in the minor component in Arts Administration.

We recognize that much artistic work cuts across the strict boundaries of these disciplines and this Programme will allow the student to explore the inter-relationships among the arts. Such exploration will be a stimulating experience to any student in the humanities.

The Programme is also intended to provide career preparation for students who are interested in such fields as arts administration and public and high school teaching.

The course requirements for a Specialist Programme in the Arts are as follows:

1 The Major Component:
One of the following areas:
Drama
Fine Art History
Fine Art Studio
Music

In each case the courses taken are the same as those specified for the Major Programme in the chosen discipline. Consult the calendar entries under the individual disciplines.

2 The Minor Component:
Two of the following areas, other than the area chosen as the Major Component:

Arts Administration:

AADB01Y	Introduction to Arts Administration

and 2 full-course equivalents from:

MGTA02Y	Introduction to Management
MGTB02Y	Financial Accounting
ECOA02Y	Introduction to Economics: A Mathematical Approach
or	
ECOA03Y	Introduction to Economics
ECOB35F/S	Public Decision Making*
MGTB27Y	Organizational Behaviour*
POLA50Y	Introduction to Canadian Politics

* Students should check these courses for prerequisites

Creative Writing:

ENGB60Y	Creative Writing I
ENGC66Y	Independent Studies: Creative Writing

and one full-course equivalent at the D-level in Directed Writing.

Drama:
DRAB01Y, DRAB20F, DRAB21S, DRAB22F, DRAB23S.

Fine Art History:
FARA10F/S, FARA11F/S, FARA12F/S, FARA13F/S, plus one full-course equivalent at the B-level (Supervisor's approval required).

Fine Art Studio:
FARA90Y and any two full-course equivalents in Fine Art Studio.

Music:
MUSA01Y and any two full-course equivalents in Music.

3 HUMC11H
Plus one and one half full-course equivalents from relevant disciplines. Authorization from the programme supervisor is required.

HUMC11H Arts Seminar
A seminar/performance course combining at least two of: Fine Art Studio, Fine Art History, Drama, Creative Writing and Music. Students will bring a proposal for a project to the supervisor early in the fall term and develop their proposals through the term. They will present their seminar/performance in the spring term. The form of presentation will depend upon the development of the proposal and the disciplines involved.
Prerequisites: at least 10 full-course equivalents in the Arts Programme.
Session: Winter Day
Co-ordinator: J. Hoogstraten
Offered 1994/95 and 1995/96

Astronomy

Discipline Representative: R. Carlberg (287-7205)
Astronomy is at the same time one of the oldest and one of the most dynamic areas of science. It is basically the attempt to understand the environment in which humanity developed, from the solar system in which we find our direct and recent origins, to the largest distance scales typified by quasars and the big bang, in which we must search for the very origins of structure ranging from the solar system to the largest structures, such as large clusters of galaxies and *cosmic voids*. The past quarter century has seen startling discoveries, such as the *cosmic microwave background radiation*, that have given us both new understanding of the universe and made us more aware of the problems still facing us in attaining a further understanding. In addition there has recently been a significant trend towards the integration of many of the ideas of modern high energy Physics into Astronomy, with particularly interesting developments concerning ideas about the very first seconds in the evolution of our universe.

The full range of modern astronomical topics is covered in the introductory course ASTA03Y. For students wishing to further their study in Astronomy, there are a number of B and C level courses, which are integral components of a number of the Physical Sciences Specialist Programmes.

In addition, the course ASTB03S is intended for students who have taken no previous astronomy, and covers the history of modern Astronomy. It is intended to provide a historical perspective on modern Astronomy, and by example, an introduction to the evolution of a number of modern scientific areas.

Please refer to the Physical Sciences section of the Calendar for the following Programmes.

Specialist Programme in Astronomy, Mathematics and Physics

Major Programme in Astronomy and Physics

ASTA03Y Introduction to Astronomy
Telephone ID #: 01110363
A description of the solar system, sun, stars, galaxies and other phenomena of the Cosmos in which we live. The mechanisms which make our sun and other stars shine are explained, and the nature and evolution of our solar system, star systems, galaxies and the Universe as a whole are discussed in a manner suitable for both the science and non- science student. Methods and techniques for exploring the Universe are described, including the recent use of radio telescopes and telescopes on spacecraft. 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 inch Questar telescope, students also have an opportunity to observe and to photograph heavenly bodies if they wish.
Exclusion: AST100, 120, 200
Session: Winter Day
R.G.Carlberg

ASTB03S Great Moments in Astronomy
Telephone ID #: 01120353
An examination of the people, the background and the events associated with some major advances in astronomy. Emphasis is given to the role of a few key individuals and to how their ideas have revolutionized our understanding of nature and the Universe. Implications of the revised outlook are also discussed. The course will focus on: the first measurement of stellar distances; the prediction of the existence of Neptune; the discovery of the nature of stars; the proof of the existence of "island universes"; the birth of the theory of stellar structure; the detection of the cosmic fireball; and the expansion of the Universe. The perspective gained is used to assess current astronomical research and its impact on society.

The course is intended primarily for students not in Physical 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: AST210
Prerequisite: Four full-course equivalents
Session: Winter Evening

ASTB50S Celestial and Classical Mechanics
Telephone ID #: 01125053
This course considers classical mechanics with particular emphasis on its origins and applications in celestial mechanics, particularly the study of the motions of bodies in planetary systems. Topics will include central force laws, Kepler's Laws, conservation laws, Lagrange's equations, and an introduction to Hamiltonian mechanics.
Prerequisite: ASTA03Y, MATA26Y, PHYA01Y
Corequisite: MATB41F, MATB42S, PHYB21S

ASTC01H Research Topics in Astronomy
Telephone ID #: 01130143
Application of individual effort to reading and research on a topic of current interest. Research on some topic of current interest in astrophysics and write a report ("mini-thesis") on their work. The student is expected to gain an appreciation of the current state of knowledge about a particular topic of astrophysical interest and to become familiar with the basic methods of research. The topic will be selected by one of the instructors in consultation with the student. Formal lectures are replaced by regular consultation between the student and instructor. It is expected that at least 80 hours of work will be done during the year, following which the mini-thesis will be submitted to the instructor.
For more detailed information see Professors Dyer or Kronberg. The bibliography is dependent upon the topic selected.
Exclusion: AST425
Prerequisite: ASTA03 or 323; PHYB21S, permission of instructor
Session: Winter Day

ASTC50F Structure and Evolution of Astrophysical Bodies
Telephone ID #: 01135033
The structure and evolution of astrophysical bodies, particularly stars of various types is

considered from its basis in various branches of Physics, and from the observational viewpoint. A number of areas of Physics come together to explain the structure and stability of stars, including gravitation, thermodynamics, radiative processes, and nuclear energy generation mechanisms. Of particular interest is the fragile balance among the various forces and processes, and failures in this balance will be shown to lead to various evolutionary tracks, leading from the birth of stars to the various possible endstates for stars, such as neutron stars and black holes. The generation of the atomic elements by the nuclear processes in stars will be considered. There will also be some discussion of cooler objects, such as the planets, where the structure is typically more complicated due to the solid or liquid state of matter in these objects.
Prerequisite: ASTA03Y, ASTB50S, MATA26Y
Corequisite: MATB41F, MATB42S

ASTC51S Stellar Systems, Galaxies, and Cosmology
Telephone ID #: 01135153
This course will consider the structure and evolution of collections of astrophysical bodies, usually starting at the scale of stars. Topics will include the star clusters found in various regions of most galaxies, and their implications both for 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 Friedmann models of the universe. Observational approaches to determining limits on the large scale structure of the universe will be considered.
Prerequisite: ASTA03Y, ASTB50S, ASTC50F
Corequisite: PHYC22S
Offered 1993/94

Biological Sciences

Associate Chair: D. D. Williams
(Office S-549)
From its early beginnings as a descriptive science, biology has developed, particularly in the last few decades, into a sophisticated experimental science employing other basic sciences such as chemistry, physics, and mathematics. Modern biology includes the study of structure and function of all living organisms, including man. Within biology various core areas may be distinguished: morphology and structure (anatomy), taxonomy, physiology, biochemistry, genetics and evolution, and ecology. In addition to their fundamental significance, certain of these areas are central to understanding and solving many problems currently confronting mankind.

Five Programmes in Biology are offered. (1) Three Specialist Programmes: for students wishing to concentrate in the biological sciences. These Programmes cover core areas of Biology and require a number of courses in cognate disciplines. NOTE - **it is possible for students to take the introductory mathematics and physics courses** (or in the case of the Ecology and Evolution Programme - mathematics and physics, geography, or geology courses) **in the second, third, or fourth years of the Programme.** (2) The Major Programme: for students interested in Biology but wishing to combine it with other areas of interest. (3) The Minor Programme in Biology: for students primarily interested in Physical Science, Social Science, Management and Economics or Humanities who also have an interest in Biological Sciences.

Supervisors and other staff members should be consulted if you have questions about your Programme in Biology, or the year-to-year sequence of courses.

Major Programme in Biological Sciences
Supervisor: G. F. Israelstam (Office S-526)
This Programme must include BIOA03Y plus 6 full- course equivalents in Biology. Note: a) at least one full-course equivalent must be in plant science; b) at least 0.5 full-course equivalent must be taken from each of Groups 2-5. Courses with an * can be used to fulfill this requirement in only one group.
The following are the plant science courses: BIOB06Y, BIOB39F, BIOB40S, BIOC37F, BIOC38S, BIOC46S, BIOC47F, BIOD12H, BIOD17F, BIOD30S.]
Note that B, C, and D level courses can be taken in any year after the first, subject to the fulfillment of the necessary prerequisites.

1 BIOA03Y. (EESA04F/S cannot be substituted for BIOA03Y in this programme)
2 Structure and Diversity: BIOB25F*, BIOB26S, BIOB32F, BIOB39F, BIOB40S, BIOC29F, BIOC30S, BIOC37F*, BIOC38S.
3 Physiology and Biochemistry: BIOB02Y, BIOB06Y, BIOB17Y, BIOC31S*, BIOC35Y*, BIOC36H*, BIOC48F*, BIOD12H, BIOD30S.
4 Ecology and Evolution: BIOB12Y, BIOB14F, BIOC03F, BIOC16S, BIOC18S, BIOC19F, (BIOC33S), BIOC46S, BIOC47F, BIOC52S, BIOC60S, (BIOC64F), BIOC65S, BIOC68F, BIOC99F, (BIOD13F), BIOD15F, (BIOD22S), BIOD61S.
5 Cell and Molecular Biology: BIOB05Y, BIOB23Y, BIOB25F*, BIOC20Y, BIOC31S*, BIOC35Y*, BIOC36H*, BIOC37F*, BIOC48F*, BIOD05S, BIOD17F, BIOD18S, BIOD19S.

Specialist Programme in Biological Sciences
Supervisor: G. F. Israelstam (Office S-526)
This Programme must include the following 14 full- course equivalents of which at least one should be in the Plant Sciences (see Major Programme for a list of Plant Science courses) and at least three must be at the C or D levels (0.5 must be at the D level). Note that courses at the B, C, or D levels may be taken in any year after the first, subject to the fulfillment of the necessary prerequisites. Courses with an * can be used to fulfill this requirement in only one group.

1 BIOAO3Y. (EESA04F/S cannot be substituted for BIOA03Y in this programme)
2 At least one full-course equivalent in Structure and Diversity: BIOB25F*, BIOB26S, BIOB32F, BIOB39F, BIOB40S, BIOC29F, BIOC30S, BIOC37F*, BIOC38S
3 At least one full-course equivalent in Physiology and Biochemistry: BIOB02Y, BIOB06Y, BIOB17Y, BIOC31S*, BIOC35Y*, BIOC36H*, BIOC48F*, BIOD12H, BIOD30S.
4 At least one full-course equivalent in Ecology and Evolution: BIOB12Y, BIOB14F, BIOC03F, BIOC16S, BIOC18S, BIOC19F, (BIOC33S), BIOC46S, BIOC47F, BIOC52S, BIOC60S, (BIOC64F), BIOC65S, BIOC68F, BIOC99F, (BIOD13F), BIOD15F, (BIOD22S), BIOD61S.
5 At least one full-course equivalent in Cell and Molecular Biology: BIOB05Y, BIOB23Y, BIOB25F*, BIOC20Y, BIOC31S*, BIOC35Y*, BIOC36H*, BIOC37F*, BIOC48F*, BIOD05S, BIOD17F, BIOD18S, BIOD19S.
6 Five other full-course equivalents in Biology (unspecified). Note that BIOD01Y or BIOD02Y can be used in filling this requirement.
7 Three full-course equivalents in cognate disciplines: CHMA02Y PHYA01Y or PHYA10 and PHYA11 MATA26Y.
8 One full-course equivalent from Humanities or BIOC70F and BIOC71S.
9 It is recommended that Biology Specialists take a course in Computer Science such as CSCA02F/S or CSCA06F/S or CSCA57F/S.

Minor Programme in Biological Sciences
Supervisor: G. F. Israelstam (Office S-526)
This programme must include BIOA03Y plus any three full-course equivalents in Biology, at least one full-course equivalent to be at the C or D level.

Specialist Programme in Cell and Molecular Biology
Supervisor: J. Youson (Office S-566)
This programme must include the following 14 full- course equivalents of which at least 3 must be at the C or D levels (0.5 must be at the D level). Note that courses at the B, C, or D levels can be taken in any year after the first, subject to the fulfillment of the necessary prerequisites. However, CHMB44Y Organic Chemistry is strongly recommended in the second year for students who plan to take Biochemistry.

1 BIOAO3Y. (EESA04F/S cannot be substituted for BIOA03Y in this programme)
2 Five full-course equivalents from the following: BIOB02Y; BIOB05Y; BIOC20Y; BIOC35Y; BIOC36H; BIOC48F or BIOD19S; BIOD17F or BIOD18S. Courses from the above which are not used to fulfil the requirement of the five full-course equivalents in category 2 may be used to fulfil the requirement of three full-course equivalents in category 3 below.
3 Three full-course equivalents from the following: BIOB06Y or BIOB17Y; BIOB23Y; BIOB25F or BIOC37F; BIOD05S; BIOD01Y or BIOD02Y. Courses from the following St. George offerings may be taken to satisfy 1.5 full-course equivalents of the 3 full-

course equivalents required for this category: JBM351Y, JBM353Y, IMM334Y, any MPL400 series course, any BCH400 series course, or any MGB course. Students who wish to enrol in courses offered on the St. George campus should note that entry into many of these courses will be by ballot.

4 Four full-course equivalents in cognate disciplines:
CHMA02Y
CHMB44Y
PHYA01Y or PHYA10 and PHYA11
MATA26Y

5 One full-course equivalent from the Biology course offerings at Scarborough Campus not listed above. BIOC60S and BIOD61S are recommended.

6 It is strongly recommended that students take a statistics course.

Specialist Programme in Ecology and Evolution

Supervisor: J. Eadie (Office S-558)

This Programme must include the following 14 full- course equivalents of which at least 3 must be at the C or D levels (0.5 must be at the D level). At least 1 full-course equivalent must be in plant science (see Major Programme for list of plant science courses). Note that B, C or D level courses can be taken in any year after the first, subject to the fulfillment of the necessary prerequisites.

1 BIOA03Y. (EESA04F/S cannot be substituted for BIOA03Y in this programme)

2 5.5 full-course equivalents in Ecology and Evolution:
a) 2.0 full-course equivalents are mandatory: BIOB12Y, BIOC60S and STAB22F/S.
b) 3.5 full-course equivalents from the following: BIOB14F; BIOC03F; BIOC16S; BIOC18S; BIOC19F; (BIOC33S); BIOC46S; BIOC47F; BIOC52S; (BIOC64F); BIOC65S; BIOC68F; BIOC70F; BIOC71S; BIOC99F; (BIOD13F); BIOD15F; (BIOD22S); BIOD61S*.

3 1.5 full-course equivalents in Structure and Diversity:
BIOB25F*, BIOB26S, BIOB32F, BIOB39F, BIOB40S, BIOC29F, BIOC30S, BIOC37F*, BIOC38S.

4 One full-course equivalent in Physiology and Biochemistry:
BIOB02Y, BIOB06Y, BIOB17Y, BIOC31S*, BIOC35Y*, BIOC36H*, BIOC48F*, BIOD12H, BIOD30S.

5 One full-course equivalent in Cell and Molecular Biology:
BIOB05Y, BIOB23Y, BIOB25F*, BIOC20Y, BIOC31S*, BIOC35Y*, BIOC36H*, BIOC37F*, BIOC48F*, BIOD05S, BIOD17F, BIOD18S, BIOD19S, BIOD61S*.

6 Note that in the above items 2, 3, 4 and 5 courses with an * can be used to fulfill the requirements of one category only.

7 One full-course equivalent from categories 3, 4, and 5 or from BIOD01Y or BIOD02Y.

8 Three full-course equivalents in cognate disciplines:
CHMA02Y
PHYA01Y or PHYA10 and PHYA11
MATA26Y
EESA03F or EESA02S plus CSCA02F/S or CSCA06F/S

9 For those interested in pursuing Theoretical Ecology, an additional MAT course should be considered.

10 A computer science course, CSCA02F/S or CSCA06F/S or CSCA57F/S, is recommended.

BIOA03Y Introductory Biology

Telephone ID #: 01310363

This course is designed for students who intend to pursue further courses in Biology or other Natural Sciences. It offers a thorough consideration of basic biological concepts as they pertain to both plants and animals. Lectures will emphasize the energetics of living systems, the transmission and functions of genes, integrative functions in plants and animals and the origin and evolution of life.

Specific topics include: the chemical constituents of cells, cell structure and function, inheritance, the structure and function of genes, early developmental processes, mechanisms of development, cellular metabolism, photosynthesis, molecular basis of muscle contraction, nerve physiology, plant hormones, evolution, basic ecology.

Two one-hour lectures and one three-hour laboratory per week. Laboratory and discussion periods will supplement the lecture material.

Exclusion: BIO100, BIO150

Although this course has no prerequisites, a background in Biology and Chemistry is recommended.

Session: Winter Day

The Faculty

BIOB02Y Basic Microbiology

Telephone ID #: 01320263

The general properties of bacteria, fungi and viruses, their structure, function and relationship to man, employing selected organisms to demonstrate their significance in health, research, biotechnology and the environment.

To gain awareness of the world of microorganisms, their physiology, genetics, structure, and importance.

Laboratories include practical training in basic microbiological techniques.

One two- hour lecture and three hours of laboratory each week.

Exclusion: MPL200Y

Prerequisite: BIOA03

Session: Winter Day

J.C. Silver

BIOB05Y Genetics

Telephone ID #: 01320563

A lecture and laboratory course in basic genetics and cytogenetics, with examples chosen from work on bacteria, fungi, Drosophila and vertebrates, including man.

Topics include: Mendel's principles, linkage, mapping, structure of genes, genetic control of protein synthesis, recombinant DNA technology and its uses, regulation of gene activity, chromosome structure, mutation. Lectures, laboratory, problem sessions, discussion.

Exclusion: BIO260H

Prerequisite: BIOA03

Session: Winter Day

M.F. Filosa

BIOB06Y Plant Physiology

Telephone ID #: 01320663

A basic lecture and laboratory course on the general physiology of plants.

The green plant as a functional organism; water and salt uptake and translocation, water loss; mineral nutrition, carbohydrate, protein and lipid metabolism. Enzymology. Photosynthesis and respiration. Growth and development of plants. The objective of this course is to introduce the student to the science of plant physiology, and to provide a training in laboratory techniques and the presentation of scientific data in this field. Lectures and laboratory work.

Exclusions: BOT322Y, BOT323H

Prerequisite: BIOA03

Session: Winter Day

G.F. Israelstam

BIOB12Y Fundamentals of Ecology

Telephone ID #: 01321263

The scientific study of the interactions that determine the distribution and abundance of organisms. A course intended to promote the development of an ecological conscience.

Importance of evolution in ecology; factors limiting the distribution of organisms such as adaptation, behaviour, and dispersal; attributes of populations: population estimation, life table analysis, estimation of the innate capacity for increase, and population growth; species interactions: competition and predation; theories of population regulation; attributes of communities: concept of the community, species diversity, community patterns and classification succession and climax; concept of the ecosystem; biomes of the world; community energetics; community nutrition; other topics of general ecological interest.

Exclusions: ZOO323Y, BOT330H

Prerequisite: BIOA03 or EESA04F/S

Session: Winter Day

R. Boonstra

BIOB14F Environmental Biology

Telephone ID #: 01321433

A course designed to explore the biological consequences of major selected problems facing Canada and the World which are a direct consequence of human activities. Each of the problems addressed will deal with the causes, the effects, and the potential solutions. A short introduction section in the course will discuss a number of ecological principles that apply to communities in order to set the stage for interpreting the implications of these problems. The following will be among the topics discussed: sustainable development, the pesticide problem, the acid rain problem, the potential impact of increasing carbon dioxide levels on world climate, conservation and extinction of plants and animals, deforestation of the tropics and the human population problem.

Two one-hour lectures per week, plus tutorials every week.

Prerequisite: BIOA03 or BIOB12 or permission of instructor

Session: Winter Day

R. Boonstra

BIOB17Y Animal Physiology

Telephone ID #: 01321763

The function of cells and of the organ systems which have evolved to control the environment of the individual cell within the organism. Topics include: (i) body fluids and circulation, (ii) ionic and osmotic balance, (iii) excretion, (iv) gas exchange, (v) nerve and muscle physiology. First

term - nutrition, gas exchange, gas transport, heart and circulation, excretion, osmoregulation. Second term - nerves and bioelectricity, synapses and integration, muscle and neuromuscular systems, sense receptors, hormones.

Lectures and laboratory work.
Exclusion: ZOO252Y
Prerequisite: BIOA03
Session: Winter Day
C. K. Govind

BIOB25F Vertebrate Histology: Cells and Tissues
Telephone ID #: 01322533
The structure of cells and the various tissue types which make up the vertebrate body: epithelial, connective, muscle, nervous, blood, and lymphatic with emphasis on their involvement in form and function.

Two one-hour lectures and three hours of laboratory per week.
Exclusion: ZOO351H
Prerequisite: BIOA03
Session: Winter Day
J. H. Youson

BIOB26S Vertebrate Histology: Organs
Telephone ID #: 01322653
The histological structure of the major organ systems of the vertebrate body (integument, digestive, respiratory, excretory, reproductive, and endocrine) with particular emphasis on functional morphology, evolution, and development.

Two one- hour lectures and three hours of laboratory per week.
Exclusion: ZOO351H
Prerequisite: BIOA03, BIOB25
Session: Winter Day
J. H. Youson

BIOC16S Marine Biology: Habitats and Communities
Telephone ID #: 01331653
A course in selected topics of marine biology. This course will be held during reading week at the Bermuda Biological Station and will have 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 Scarborough. In Bermuda, students will study three main habitat types: rocky shore, open ocean, and coral reef. In addition, students will work on individual field projects. Limited enrolment: 16.
Exclusion: BIO301
Prerequisite or corequisite: BIOC29F and permission of instructor*
Session: Winter Evening
D.D. Williams
* As this course is often oversubscribed, interested students must contact the instructor well in advance of the start of the fall term for details and must, at that time, be prepared to place a deposit towards the cost of airfare and accommodation. Places are allocated on a first-come, first-served basis.

BIOC18S Microbes in the Environment
Telephone ID #: 01331853
This microbial ecology course will deal with the relationships of microorganisms: algae, bacteria, cyanobacteria, fungi, and viruses, to their environments. As customary in microbial ecology, the course will be both organism and habitat oriented.

Major topics will include the role of microbes as biogeochemical agents (organic matter and nutrient cycling) in both terrestrial and aquatic environments; as specific pathogens, producers of specific antagonistic and stimulating factors, and as symbionts.

Other topics will include bacteria as primary producers in unusual environments e.g., deep-ocean hydrothermal vents; and the significance of degradation processes carried out by bacteria in the context of oil spills and other environmental hazards.

One two-hour lecture per week; problem sets.
Exclusion: (BIOB03)
Prerequisite: BIOB02 or BIOB12
Session: Winter Day
T.B.A.

BIOC20Y Cell Biology
Telephone ID #: 01332063
This course will focus on both structural and functional aspects of cells. Topics to be covered include: the structure and function of cellular organelles, the cytoskeleton, organelle biogenesis, the cell cycle, membrane transport and cell-cell interactions. These topics will be discussed with regard to insights obtained from various approaches including microscopy and molecular biology.

Two hours of lectures per week.
Exclusion: BIO250Y
Prerequisite: One full-course equivalent from the following: BIOB02Y, BIOB05Y, BIOB23Y, BIOB25F, BIOB26S, BIOC37F, BIOC38S or BIOC35Y. BIOC35Y may be taken concurrently.
Session: Winter Day
R. E. Dengler/C. D. Riggs/J. H. Youson

BIOC29F Invertebrate Zoology
Telephone ID #: 01332933
A general survey of the invertebrate animals (Protozoa-Urochordata); excluding the Arthropods, with emphasis on those groups of numerical, evolutionary and medical importance. Lectures, discussion groups and laboratories will cover classification and study of diversity within groups, with emphasis on functional morphology and evolution. Living specimens and technical films will form an important part of laboratories.

Two one-hour sessions and three hours of laboratory work per week. Field trip.
Exclusion: ZOO353Y
Prerequisite: BIOA03 or BIOB12
Session: Winter Day
D.D. Williams

BIOC31S Invertebrate Neurobiology
Telephone ID #: 01333153
An examination in lectures and laboratory reports of current topics in invertebrate neurobiology. These topics will revolve around the neural, synaptic and muscular mechanisms underlying certain simple behaviours and their development especially in insects, crustaceans and molluscs.

One two-hour lecture per week; laboratory work to be arranged with class.
Prerequisite: BIOA03
Session: Winter Evening
C. K. Govind

BIOC35Y Introductory Biochemistry
Telephone ID #: 01333563
An introductory course for students in the biological sciences, designed to introduce a broad range of biochemical topics.

Topics covered in the course will include: metabolism of sugars, amino acids and lipids and the relationship of these to the energy metabolism of the cell; the effect of hormones on cellular metabolism; structure and function of enzymes; structure and biosynthesis of nucleic acids; gene cloning techniques, biosynthesis of proteins. Regulation and integration of metabolic pathways will be discussed.

The teaching method will consist of one two-hour lecture per week.
Exclusion: (JBCC35), BCH320Y, BCH321Y
Prerequisite: BIOA03, CHMB44Y (CHMB05)
Session: Winter Evening
J. W. Gurd

BIOC36H Laboratory in Biochemistry
Telephone ID #: 01333643
An introductory laboratory course designed to introduce students to basic experimental techniques used in biochemical research.

The course will introduce students to practical and theoretical aspects of techniques used in biochemical research, including: spectrophotometry; chromatography; radioisotopes; electrophoresis; protein fractionation; etc.

The teaching method will consist of three hours of laboratory work plus one hour of lecture each week.
Exclusion: (JBCC36), BCH370H, BCH371H
Prerequisite: BIOAO3, CHMB44Y (CHMBO5)
Corerequisite: BIOC35
Session: Winter Day
C. Fu

BIOC37F Plant Structure and Development: Cells and Tissues
Telephone ID #: 01333733
The structure and development of cells and tissues making up the vascular plant body are examined at the light and electron microscope levels. Embryos and seedlings are used to demonstrate the integration of tissue systems throughout the plant body. A review of cell constituents and cell wall precedes 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 tubes. Microscope work in the laboratories emphasizes the recognition of cells, cell products and tissues dealt with in the lectures and text. Offered in alternate years.
Prerequisite: BIOA03
Session: Winter Day
R. E. Dengler

BIOC38S Plant Structure and Development: Organs
Telephone ID #: 01333853
A course dealing with the morphological, histological and developmental analysis of the major vegetative plant parts (roots, stems, leaves and derived structures) in higher vascular plants. Questions to be addressed include: how do 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, proproot, grasping root, aerating root,

thorn 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 plant microtechnique project by the end of the course. Offered in alternate years.
Prerequisite: BIOA03; BIOC37 or permission of instructor.
R. E. Dengler

BIOC46S Plant Population Ecology
Telephone ID #: 01334653
The analysis of vegetation in terms of population ecology, including the following topics: demography and life tables; life cycle types; modes of reproduction; population regulation processes; competition and niche theory.
Two one-hour lectures and one three-hour laboratory per week. Offered in alternate years.
Exclusion: BOT330H
Prerequisite: BIOB12
Session: Winter Day
T.B.A.

BIOC48F Molecular Physiology of the Bacterial Cell
Telephone ID #: 01334833
A lecture and laboratory course emphasizing the molecular mechanisms of bacterial cell regulation and of cellular processes such as active transport, chemotaxis, secretion and antibiotic resistance. The biological basis of using bacterial host-vector systems in recombinant DNA technology is discussed. Laboratory exercises are research-oriented experiments involving the growth and enumeration of bacterial cells, effects of antibiotics, incorporation of radioisotopes into macromolecules and the isolation and characterization of bacterial plasmids. Gel electrophoresis, liquid scintillation counting and other research techniques are used. Limited enrolment: 24.
Prerequisite: BIOB02
Session: Winter Day
J. C. Silver

BIOC52S Animal Behaviour
Telephone ID #: 01335253
An introduction to the study of animal behaviour. The course will emphasize the evolutionary and ecological basis of animal behaviour. Students will participate in several practical exercises to gain experience in the methods testing quantitative hypotheses about the behaviour of animals in the wild.
Lecture topics include: the history of ethology; mechanisms of behaviour (genetic, neural, physiological, and developmental); animal communication; orientation and navigation; habitat selection and territoriality; foraging behaviour; parental investment and parental care; reproductive tactics; mating systems and social behaviour. Labs will involve prepared exercises on foraging behaviour, social behaviour, mating behaviour, and anti-predator behaviour using local animals in their natural habitat. Each student will also conduct an individual research project. Offered in alternate years.
Two one-hour lectures and one three-hour lab per week.
Prerequisite: BIOA03 or BIOB12
Session: Winter Day
J. M. Eadie

BIOC60S Evolutionary Biology
Telephone ID #: 01336053
An examination of the fundamental principles of evolution. Topics include: the history of evolutionary theory; mechanisms of evolutionary change; natural selection, genetic drift, mutation and recombination; the maintenance of genetic variation; speciation and adaptive radiation; rates of evolution; phylogenetics and systematics; molecular evolution; the ecological basis of evolutionary change and coevolution. The course will not consider population genetics in detail and will focus on conceptual, rather than mathematical, issues.
Two one-hour lectures per week and one two-hour tutorial every second week.
Exclusion: (BIOC06)
Prerequisite: BIOA03 or BIOB12
Session: Winter Day
J. M. Eadie

BIOC70F Theoretical Foundations of Biology I
Telephone ID #: 01337033
An examination of the conceptual and logical aspects of explanation, theory, and model construction in biology.
The following topics will be covered: the structure of evolutionary theory; the nature of selection, fitness and adaptation; reductionism in genetics; reductionism in evolution; and the role and nature of functional explanation in biology.
Exclusion: (BJPC70F), PHLB70
Prerequisite: BIOA03 or BIOB12
Session: Winter Day
P. Thompson

BIOC71S Theoretical Foundations of Biology II
Telephone ID #: 01337153
An examination of current theoretical controversies in evolutionary biology.
Topics for 1993/94 are: complexity and organization; artifical life; culture and the evolutionary process. (Note: Although not required, a knowledge of calculus and linear algebra will enrich your understanding of some material for the course.)
Exclusion: (BJPC71S)
Prerequisite: BIOC70 (BJPC70)
Session: Winter Day
P. Thompson

BIOC99F Advanced Field Course in Ecology
Telephone ID #: 01339933
Inter-university selections from a variety of field courses offered by the Ontario Universities Programme in Field Biology, a co-operative arrangement among nine universities in Southern Ontario. Courses, of one or two weeks' duration at field sites from late April through mid September, are announced each January, and 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. Lists of courses available are posted early in January. Sign-up is on a first-come, first-served basis. Students register in the fall **after** the course has been completed and may take one two-week course or two one-week field courses to complete this credit. See the Scarborough co-ordinator, Professor J.M. Eadie, for further details.
Prerequisites: BIOA03, BIOB12 or permission of instructor
Session: Winter Day
J.M. Eadie

BIOD01Y Supervised Study in Biology
An independent study course designed to permit intensive examination of the literature of a selected topic and/or laboratory or field project in biology. Supervision of the work is arranged by mutual agreement between student and instructor. Will require a seminar presented by the student during a Biology Research Day in the Spring.
Exclusion: BOT460Y, ZOO498Y
Prerequisite: Satisfactory completion of fifteen full-course equivalents, of which at least four must be Biological Science B- or C-level courses.
Session: Winter
Members of Faculty

BIOD02Y Directed Research in Biology
Identical to BIOD01Y but not to be taken with the same faculty member.
Prerequisite: Completion of fifteen full-course equivalents, of which at least four must be Biological Science B- or C-level courses. Will require a seminar presented by the student during a Biology Research Day in the Spring.
Exclusion: BOT460Y, ZOO498Y
Session: Winter
Members of Faculty

BIOD12H Physiology and Biochemistry of Plant Growth and Development
Telephone ID #: 01341243
A lecture and seminar course in plant growth and development. Emphasis will be placed on the mechanisms controlling growth and development.
The plant growth hormones and their mechanism of action, germination, dormancy, senescence, tropic responses, growth mechanisms, correlation effects, flowering, fruiting. Biological clock mechanisms. It is hoped to provide an in-depth understanding and to review critically the processes of growth and development in plants. It should acquaint the student with current literature on the subject, via library research, providing a sound basis for possible future research in this field. Lectures and seminars. Limited enrolment: 12.
Prerequisite: BIOB06
Corerequisite: BIOC35 recommended
Session: Winter Day
G. F. Israelstam

BIOD15F River Ecology
Telehphone ID #: 01341533
The course will begin with an introduction to stream hydrology and sediments, and the adaptations of plants and animals to life in a dynamic habitat. Later topics will cover micro- and macro-distribution of stream faunas and the problems of quantitatively sampling them; biotic interactions; community structure and stability; colonization patterns following disturbance; energy transformations; estimates of production; and man's effects on rivers.
Two one-hour lectures and three hours of laboratory work per week. Field trip. Offered in alternate years. Limited enrolment 15.
Exclusion: ZOO469Y
Prerequisites: BIOB12 or BIOC29 or permission of instructor
Session: Winter Day
D.D. Williams

[illegible] which elaborates on [illegible] molecular and biochemical [illegible] plant cell metabolism. [illegible] utilize a number of biochemical [illegible] ways which are not found in animal cells to carry out their normal life-cycles and to respond to changes in their environment. With the advent of plant transformation systems and recombinant DNA techniques these unique developmental changes and responses to environmental stimuli are beginning to be understood at the molecular level. Topics to be covered will include: the genetics of Agrobacterium and plant transformation, generation of somatic hybrids, targeting of proteins to the chloroplast, interactions between nuclear and chloroplast genomes, molecular biology of pollen development and floral evocation, embryogenesis and development of monocot and dicot seeds, cis and transacting factors controlling gene expression during the course of development and in response to environmental cues, plant genetic engineering and agricultural applications.
Exclusion:MGB460H
Prerequisite: BIOB05
Session: Winter Day
C. D. Riggs

BIOD18S Molecular and Classical Cytogenetics
Telephone ID #: 01341853
The structure of eukaryotic nuclear genomes will be examined closely in this course. This information will then be integrated with theories on how nuclear genomes accomplish chromosome replication and nuclear division. How evolution and differentiation of new genomes occur will be considered within the above framework. The major topics for the course will be chromosome structure and organization, control of chromosome replication, chromosome behaviour in mitosis and meiosis, chromosome and genome "aberrations," genome evolution and speciation, and molecular characterization of genomes -- technological approaches.
One two-hour lecture per week. Limited enrolment: 40
Prerequisites: BIOB05 or BIOC20 or BIOC35 (JBCC35) or equivalent St. George courses
Session: Winter Evening
C. Hasenkampf

BIOD19S Molecular Biology of the Gene
Telephone ID #: 01341953
The basic concepts of the molecular biology of the gene - key experimental observations. This lecture and laboratory course will indicate how recent advances in genetic engineering have permitted great strides to be made in increasing our basic knowledge of the molecular biology of the gene. The course will demonstrate how recent research activity utilizing recombinant DNA technology has advanced our understanding of areas such as the immune system, cell cycle control and the control of development. Students will receive laboratory experience in the use of a range of molecular biology techniques.
Lab sections will meet once every three weeks for a 9 a.m. to 5 p.m. session. Limited to 30 students.
Prerequisite: BIOBO5 or BIOC35 (JBCC35)
Session: Winter Day
C. Hasenkampf

Courses Not Offered 1993-94

BIOB23Y	Developmental Biology Exclusion: ZOO228Y Prerequisite: BIOA03
BIOB32F	Vertebrate Morphogenisis Exclusion: ZOO263Y Prerequisite: BIOA03Y or BIOB12
BIOB39F	Compartive Morphology of Fungi, Algae and Bryophytes Exclusion: BOT251Y Prerequisite: BIOA03
BIOB40S	Comparative Morphology of Vascular Plants Exclusion: BOT251Y Prerequisite: BIOA03
BIOC03F	Ecology Field Course Exclusion: BIO300H Prerequisite: BIOB12
BIOC19F	Limnology Exclusion: ZOO370H, ZOO471Y Prerequisite: BIOA03 or BIOB12 or permission of instructor
BIOC30S	The Arthropoda Exclusion: ZOO353Y Prerequisite: BIOA03, BIOC29 or permission of instructor
BIOC47F	Plant Community Ecology Exclusion: BOT330H Prerequisite: BIOB12
BIOC65S	Conservation Biology Prerequisite: BIOB12
BIOC68F	Environmental Toxicology Prerequisite: BIOA03 or BIOB12 or permission of instructor
BIOD05S	Advanced Genetics Prerequisite: BIOB05
BIOD30S	Physiology of Algae Exclusion: BOT324H Prerequisite: Eight full course equivalents in Biology
BIOD61S	Evolutionary Biology Prerequisite: BIOA03 and BIOC60 Co-requisite: BIOB05 or permission of instructor

Chemistry

Discipline Representative: R. Morris (287-7221) (978-6962)
Coordinator of First Year Studies in Chemistry: A. Verner (287-7224)
Chemistry can be viewed as both a challenging intellectual pursuit and a powerful, practical tool for developing and handling the resources of our contemporary society. The Chemistry Handbook outlines the teaching and research activities of the Chemistry faculty and offers a wide range of informal advice on undergraduate activities. A sound knowledge of the fundamental concepts of chemistry is useful to any student in the Physical or Life sciences.

The basic course in chemistry is CHMA02Y which must be taken by those who wish to take further chemistry courses or who require chemistry for another science.

Completion of CHMA02Y permits students to take any of the B-level courses in Chemistry. These are divided according to the following subdisciplines: Inorganic Chemistry, Analytical Chemistry, Physical Chemistry and Organic Chemistry. Thereafter, one can proceed to advanced-level courses at the C and D level.

For those who wish to enrol subsequently in St. George 400-series courses, completion of the following groups of courses, together with their corequisites and prerequisites, will ensure admission to the St. George courses indicated, provided that B standing or permission of the instructor is obtained.

To Enter St. George Series	*Complete Scarborough Courses*
420	CHMA02Y; CHMB22Y; CHMC22F; CHMC26F
430	CHMA02Y; CHMB11Y; CHMB33Y; CHMC33S; CHMC36S
440 (except 447)	CHMA02Y; CHMB44Y; CHMC44Y

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

While courses in Physics do not appear among the prerequisites or corequisites of most courses in Chemistry, students are urged to take PHYA01Y early in their programmes. Thus, the suggested first-year programme in Chemistry includes CHMA02Y, MATA26Y and PHYA01Y.

Completion of a Specialist or Major Programme in Chemistry 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 section of the Calendar for the following programmes.

Specialist Programme in Chemistry

Specialist Programme in Chemistry and Biochemistry

Specialist Programme in Environmental Chemistry

Major Programme in Chemistry

Major Programme in Biochemistry

Specialist Programme in Chemical Physics
The Specialist Programme in Chemical Physics is no longer offered. Students currently registered will be allowed to complete it.

CHMA02Y General Chemistry
Telephone ID #: 02810263
Nuclear chemistry, atomic and molecular structure, ionic solids, bonding in organic compounds; states of matter and equations of state; thermo-chemistry; 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 structures, 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 lectures per week. One four-hour laboratory and one one-hour tutorial in alternating weeks.
Exclusions: CHM135, 136, 150
Prerequisite: OAC Chemistry (or Grade 12 Chemistry and permission of instructor); OAC Calculus.
Corerequisite: NONE: But MATA26Y is strongly recommended and is required for some higher level chemistry courses.
Session: Winter Day

CHMB11Y Analytical Chemistry
Telephone ID #: 02821163
An introduction of the principles and methods of chemical analysis and to provide practical experience in the techniques employed in a chemistry laboratory.

The course consists of two main divisions: classical wet quantitative analysis and modern instrumental analysis. The classical methods employed include gravimetric and volumetric analyses. The instrumental section will introduce the techniques of various spectrophotometric and electrochemical methods of analysis as well as chromatographic and other separatory techniques. Two hours of lectures per week for first term, one hour per week for second term and four hours of laboratory per week for both terms.
Exclusion: (CHMB02Y), CHM219, 268, 269
Prerequisite: CHMA02Y
Other recommended courses: CHMB33Y
Session: Winter Day

CHMB22Y Introductory Physical Chemistry
Telephone ID #: 02822263
Introduction to physical chemistry, including thermodynamics, elementary statistical mechanics and chemical kinetics. The course starts with the application of the basic laws of thermodynamics to a variety of chemical problems. Topics covered include spontaneous processes, chemical and phase equilibria, properties of solutions and electrochemistry. Further course topics are: the kinetic theory of gases, statistical mechanics of simple model systems, elementary chemical kinetics and theories of chemical bonding.
Exclusion: (CHMB03Y), CHM222
Prerequisite: CHMA02Y, MATA26Y, PHYA01Y
Corequisite: MATB41F and MATB42S are strongly recommended but not required. However note prerequisites for CHMC22F
Session: Winter Day

CHMB33Y Inorganic Chemistry I
Telephone ID #: 02823363
The ideas of structure and bonding of atoms, molecules and ionic lattices introduced in CHMA02Y are further developed and applied to the rich variety of structures of inorganic solids. The same ideas provide a framework to account for the reactions of these substances - namely acid-base and redox reactions. These concepts are used to rationalize the descriptive chemistry of the elements, particularly those of the s- and p-blocks. The structure and properties of the d-metal complexes are introduced as a special case of acid- base interactions.
Two one hour lectures per week.
Exclusion: (CHMB01Y), CHM239, 339
Prerequisite: CHMA02Y
Session: Winter Day

CHMB44Y Organic Chemistry I
Telephone ID #: 02824463
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.
Exclusion: (CHMB05Y), CHM240, 249, 268, 269
Prerequisite: CHMA02Y
Session: Winter Day

CHMB55F Environmental Chemistry
Telephone ID #: 02825533
This course covers aspects of chemical substances and processes as they occur in the environment, including both naturally occurring and synthetic chemicals. This 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. This course is intended for non-chemistry Majors and cannot be included in a Chemistry programme. Two one hour lectures per week.
Prerequisite: CHMA02Y
Session: Winter Day

CHMC22F Advanced Physical Chemistry
Telephone ID #: 02832233
This course is 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 use and interpretation of various techniques (IR, UV/VIS, NMR, etc.). Both equilibrium and non-equilibrium statistical mechanics will be discussed, through calculation of partition functions for model systems (equilibrium) and treatment of diffusion and other transport properties, as well as the effects of noise (non-equilibrium). The advanced kinetics portion will cover oscillatory reactions, with examples drawn from chemistry, biochemistry and ecology. The approach of this course is more theoretical than that of CHMC25S.
Exclusion: (CHMC02Y)
Prerequisite: CHMB22Y, MATB41F, MATB42S
Session: Winter Day

CHMC25S Environmental Physical Chemistry
Telephone ID #: 02832553
This course treats physical chemical topics of environmental and ecological importance, including colloidal and interfacial chemistry, atmospheric chemistry and large scale physical and chemical transport processes. Collidal 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 ozone 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 CHMC22F.
Prerequisite: CHMB22Y
Session: Winter Day

CHMC26F Experimental Physical Chemistry
Telephone ID #: 02832633
This course provides 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, noise-driven processes and simple bifurcation theory, as well as simple trajectory studies of reaction kinetics and electronic structure calculations. "Real" experiments on kinetics and thermodynamics will illustrate the topics covered in the lecture courses (CHMB22Y, C22F and C25S), with some emphasis on environmental systems.
Exclusion: (CHMC02Y), CHM268, 269, 368, 369
Prerequisite: CHMB22Y
Corerequisite: CHMC22F
Session: Winter Day

CHMC33S Inorganic Chemistry II
Telephone ID #: 02833353
The objective is to rationalize the structure, bonding, spectra and reactions of transition metal complexes. The introduction to this subject in CHMB33Y is expanded to include the analysis of the electronic spectra of complexes, reaction mechanisms of d-block complexes, organometallic chemistry, and catalysis.
Two hours of lecture per week.
Exclusion: (CHMC01Y), CHM239, 339
Prerequisite: CHMB33Y
Session: Winter Day

CHMC35F Environmental Inorganic Chemistry
Telephone ID #: 02833533
This is a study of the sources, reactions and fates of chemical species in the water, soil and air. Topics include the aqueous chemistry of important elements, redox equilibria, coordination complex formation, the role of essential and trace elements in biological systems, catalysis by microorganisms, water pollution, treatment and analysis, soil chemistry and atmospheric chemistry. Much of the chemistry is rationalized in terms of concepts of structure and bonding introduced in CHMA02Y and CHMB33Y. Chemical transport and other physical aspects are covered in CHMC25S.
Prerequisite: CHMB11Y, CHMB33Y or by permission of instructor.
Session: Winter Day

BIOC35Y Introductory Biochemistry
Telephone ID #: 01333563
An introductory course for students interested in the bio-medical sciences, designed to introduce students to a broad range of biochemical topics. Topics covered in the course will include: metabolism of sugars, amino acids and lipids and the relationship of these to the energy metabolism of the cell. The effect of hormones on cellular metabolism; structure and function of enzymes; structure and biosynthesis of nucleic acids; biosynthesis of proteins. Regulation and integration of metabolic pathways will be discussed. Two one-hour lectures per week. The text used is: Biochemistry by L. Stryer, W.H. Freeman & Co. Publishers
Exclusions: (JBCC35Y), BCH320, 321
Prerequisite: BIOA03Y; CHMB44Y (or CHMB05Y)
Session: Winter Day

BIOC36H Laboratory in Biochemistry
Telephone ID #: 01333643
An introductory laboratory course designed to introduce students to basic experimental techniques used in biochemical research.

The course will introduce students to practical and theoretical aspects of techniques used in biochemical research, including: spectrophotometry; chromatography; radioisotopes; electrophoresis; protein fractionation; etc. Three hours of laboratory plus one hour of lecture each week.
Exclusions: (JBCC36H), BCH370, 371
Prerequisite: BIOA03Y; CHMB44Y (or CHMB05Y)
Corerequisite: BIOC35Y
Session: Winter Day

CHMC36S Inorganic Chemistry Laboratory
Telephone ID #: 02833653
Synthetic techniques as applied to inorganic compounds, both main group and transition metal examples, including some organometallic complexes. This course is meant to complement both CHMB33Y and CHMC33S by illustration of the theoretical concepts presented in those 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.
Exclusion: (CHMC01Y), CHM268, 269, 368, 369
Prerequisite: CHMB33Y
Corerequisite: CHMC33S

CHMC44Y Organic Chemistry II
Telephone ID #: 02834463
An in-depth treatment of organic reactions and synthesis, stereochemistry and conformational 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 techniques and newer synthetic methods.

Two lectures and one three hour laboratory every week.
Exclusion: (CHMC03Y), CHM349, 368, 369
Prerequisite: CHMB44Y
Session: Winter Day

CHMD33S Special Topics in Inorganic Chemistry
Telephone ID #: 02843353
A selection of topics in inorganic chemistry. Recent developments are emphasized. The content of the course varies from year to year, so students should consult with the faculty members involved as to the specific areas to be covered in a given year.

This course provides an introduction to current research areas and their theoretical and practical importance in inorganic chemistry. The emphasis will be on inorganic, but a good background in organic and physical chemistry is useful. Two lectures per week.
Exclusion: (CHMD48S)
Prerequisite: CHMC33S
Session: Winter Day
Not offered 1993-94

CHMD88Y Introduction to Research
Participation in a chemical research project under the direction of a member of the Chemistry staff, requiring approximately 260 hours of effort.

The objective is to develop familiarity with some of the methods of modern chemical research. The particular research problem to be pursued will be determined by discussions between the student and the faculty director of the research.
Exclusion: (CHMD46Y), CHM418, 428, 439, 449
Prerequisite: Permission of instructor
Corerequisite: One of the advanced laboratory courses at St. George (CHM438F or CHM448F) (except for students undertaking a project in physical chemistry). Normally only for students following one of the Chemistry Programmes.
Session: Summer Day, Winter Day
Members of the Chemistry Faculty

CHMD90Y Library Thesis
A report on a selected current topic in chemistry based on literature research and carried out under the direction of one of the chemistry staff. Approximately 260 hours of work are expected.

The objective is to obtain a thorough understanding of a topic of current interest and to prepare a comprehensive and critical report on this subject. To develop familiarity with the techniques of searching the chemical literature. The topic will be selected in conference with a member of the chemistry staff. Progress will be monitored during periodic consultations with the staff member.
Exclusion: (CHMD45Y) (CHMD47F/S/H) CHMD91H
Prerequisite: Permission of instructor. Normally only for individuals who have completed fifteen full-course equivalents including at least two C-level Chemistry courses, and who are pursuing one of the Chemistry Programmes.
Session: Summer Day, Winter Day
Members of the Chemistry Faculty

CHMD91H Library Thesis
Similar to CHMD90Y but representing 130 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. To develop familiarity with the techniques of searching the chemical literature. The topic will be selected in conference with a member of the chemistry staff. Progress will be monitored during periodic consultations with the staff member.
Exclusion: (CHMD47F/S/H) (CHMD45Y) CHMD90Y
Prerequisite: Permission of instructor. Normally only for individuals who have completed fifteen full-course equivalents and including at least two C-level chemistry courses, and who are pursuing one of the Chemistry Programmes.
Session: Summer Day, Winter Day
Members of the Chemistry Faculty

Courses Not Offered 1993/94

CHMD34S Special Topics in Organometallic Chemistry and Catalysis
Prerequisite: CHMC33S

CHMD42S Special Topics in Physical Organic Chemistry
Corequisite: CHMC44Y

CHMD44S Special Topics in Synthetic Organic Chemistry
Corequisite: CHMC44Y

Classical Studies

Discipline Representative: I. R. McDonald (287-7158)
Classical Studies introduces the student to the Greek and Roman World, its literature, history, religion and government. Greco-Roman civilization was the wellspring of western culture and the direct antecedent of much of what is central and familiar in contemporary Canadian society. Its achievements in many fields still set the standards by which modern endeavours are judged. In most courses the original ancient Greek and Latin texts come alive in English translation, and the computer-based Perseus project in Bladen Library presents sophisticated multi-media opportunities for exploring the ancient Greek world.

Major Programme in Classical Studies
Supervisor: I. R. McDonald (287-7158)

A new Major Programme in Classical Studies is in course of development. It is being designed to accommodate a range of new courses and to appeal to students with a number of different interests. Details of this programme will appear in the 1994/95 Calendar.

Students should note that
(i) everyone enrolled on November 1, 1992 in the programme described in the1992-93 Calendar will be given the opportunity to complete it;
(ii) effective July 1, 1993 courses at all levels in both classical Greek and Latin (LATA01 / LATB02 / LATB11 / LATC30-40; GRKA01 / GRKB02 / GRKB11 / GRKC30-40) will no longer be offered on the Scarborough Campus;
(iii) students wishing to enrol in the new Major Programme to be introduced in September 1994 should register for the 1993/94 session in the Minor Programme defined below;

(iv) requirements for the minor programme will automatically serve to meet the core requirements of the new major programme.

Students who wish to study classical Greek and Latin language and literature in the original are directed to the Calendar of the Faculty of Arts and Science. Courses in Modern Greek will continue to be offered on the Scarborough Campus.

Minor Programme in Classical Studies

Supervisor: I. R. McDonald (287-7158)

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

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

1 CLAA01Y Classical Civilization
or
CLAA02Y Greek and Roman Mythology
2 GRHB01Y or GRHB04Y
3 Two of CLAC07F/S, CLAC08F/S, CLAC09F/S. CLAC10F/S
4 One other full-course equivalent from CLA or GRH

Minor Programme in Modern Greek

Supervisor: G. Kirikopoulos (287-7135)

The Minor Programme in Modern Greek introduces students to the broad range of modern Greek culture in its historical context (literature, film, theatre, music) with special attention to the study of the Greek language against the background of classical Greek civilization.

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

1 CLAA01Y Classical Civilization
or
CLAA02 Greek and Roman Mythology
2 GRKB13F Intermediate Modern Greek
and
GRKB14S Advanced Modern Greek
3 Two other full-course equivalents from: GRKB23F, GRKC22Y, GRKC23F, GRKC24S

CLAA01Y Classical Civilization

Telephone ID #: 03010163

An introduction to the Greco-Roman World: the achievements of the Greeks and Romans in literature, philosophy, science, and government.

These achievements will be set in an historical framework to enable the evolution of ideas to be traced. The course will not merely be a survey course. Provision has been made as well for study in greater depth in carefully selected areas, with readings, in translation, from the classical authors.

Exclusion: CLA130
Session: Winter Day
A. Boddington
Offered 1994/95 and 1995/96

CLAA02Y 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 more 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 and Winter Evening
J.R. Warden and staff
Offered 1994/95 and 1995/96

CLAB11S The Classical Element in English

Telephone ID #: 03021153

An examination of the role of Greek and Latin in the development of the English language.

The course aims to provide the student who has no previous knowledge of classical Greek or Latin with an understanding of and appreciation for the influence of those languages on contemporary spoken and written English, and to acquaint him or her with basic principles of word formation and analysis.

Topics will include: history of the contact between the classical languages and English; Latin and Greek word roots, affixes, combining forms, and inflectional patterns; cognates, derivatives, doublets, and hybrids; pronunciation; morphological and semantic changes.

Exclusion: CLAB10
Session: Winter Day
I. R. McDonald
Not offered 1994/95
Offered 1995/96

CLAB33F The Age of Homer

Telephone ID # : 03023333

The world of Homer's heroes as described in the *Iliad* and revealed through archaeology.

The course will cover the development of early Greek epic poetry and will offer a survey of Mycenaean remains. Required reading will include Homer's Iliad. The objectives will be to investigate the Homeric Poems as sources of history for a period of Greek civilization for which no substantial ancient documents exist (ca.1500-1000 B.C.); to appreciate the poetic qualities of the poems and to understand something of the circumstances under which they were composed; to impart a knowledge of the cultures described by Homer and known through excavation (e.g. Mycenae, Pylos, Ithaca, Troy, etc.). Lectures will be illustrated by slides where appropriate. Readings will include the Iliad and the Odyssey in translation.

Exclusion: (HUMB25), CLA215, 225
Session: Winter Day
A. Boddington
Not offered 1994/95

CLAC01F Selected Topics in Classical Literature

Telephone ID#: 03030133

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

For 1993/94 the topic will be ancient satire. The ancient Romans claimed to have invented it. Did they? The course will consider briefly the satiric elements in Greek poetry and prose but will concentrate on the development of the genre in classical Rome. Authors to be read will include Lucilius, Horace, Persius, Juvenal, and Petronius. Subjects to be explored will be the nature of satiric vision, topicality versus universality, the social function of satire, the constraints of literary genre, and the influence of the great classical satirists on writers from other civilizations.

Prerequisite: One full-course equivalent in CLA or another literature.
Session: Winter Day
I. R. McDonald
Not offered 1994/95

CLAC07F Ancient Drama: Comedy

Telephone ID#: 03030733

An exploration of the nature and intent 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 consideration of what makes them work, both as literary and social documents.

Exclusion: CLA300Y
Prerequisite: CLAA01Y or one full course equivalent in English or another literature
Session: Winter Day
J. R. Warden
Not offered 1994/95
Offered 1995/96

CLAC10S Ancient Epic: The Literary Tradition

Telephone ID# : 03031053

Literary or "secondary" epic as a self conscious development in the Greek and Roman epic tradition.

The course will examine Apollonius Rhodius' *Argonautica*, Virgil's *Aeneid*, and Ovid's *Metamorphoses* as landmark achievements in European literature, with brief notice of subsequent developments in the genre of "literary" epic. How does "secondary" epic grow out of the oral tradition, and what makes it different? What are the qualities which have given these poems their preeminence? Is epic possible after Virgil?

Exclusions: (CLAB01), (CLAC03), CLA255, CLA302
Session: Winter Day
I. R. McDonald
Not offered 1994/95
Offered 1995/96

CLAC21Y Greek and Roman Religion

Telephone ID #: 03032163

A study of religion in the Greek and Roman world.

The course will explore the origins of Greek and Roman religion, the importance of Homer and Hesiod, city cults, popular religion, the spread of eastern religions, the role of religion as a political instrument, and the introduction of Christianity.

Exclusion: (CLAB21)
Prerequisite: CLAA01 or CLAA02 (HUMA11)
Session: Winter Day
J. H. Corbett
Not offered 1994/95

CLAC30F
CLAC31S Supervised Study in Classics

Directed independent study on a topic or topics in classical civilization or culture.

This course is intended for senior students enrolled in the Major Programme in Classical Studies as offered in 1992/93 and previous years who are unable to complete the programme requirements with the courses listed in the *Calendar*. Areas of study will be selected in consultation with

the Supervisor. *Students must finalize arrangements with the Supervisor not later than May 15th.*
Exclusion: any course in which there is substantial overlap with the topic proposed for study. Students should consult with the Programme Supervisor
Prerequisite: enrolment in the Major Programme in Classical Studies on November 1, 1992 or earlier.
Session: Winter Day
I. R. McDonald
Offered 1994/95

Greek and Roman History

GRHB04Y The Roman World
Telephone ID #: 07120463
An introduction to the Roman World.
The course will study the origins and rise of Rome in its natural and social contexts. Special attention will be given to the Roman army and the social and political system which supported it, the economic basis of the Roman state and the social and economic impacts of Roman expansion, especially as evidenced in slavery, agricultural development and urban life. It will be the objective of this course (i) to broaden the student's awareness of the major phases of Roman history and the major social and economic structures supporting the Roman state and (ii) to suggest how the distinctive experience of Rome is fundamental to our understanding of the later history of the Western World.
Exclusions: (GRHB02Y), (GRHB03Y), CLA231, CLA351
Session: Winter Evening
J. H. Corbett
Not offered 1994/95

Greek

GRKB13F Intermediate Modern Greek
Telephone ID#: 07221333
The study of the modern Greek language.
This course is designed for students with some background in the language. In addition to vocabulary building it aims at consolidating a knowledge of grammar and syntax and developing skills in composition.
Prerequisites: None
Exclusions: (GRKB10), MGR246 (GRK246); Lyceum Diploma from Greece
Session: Winter Day
G. Kirikopoulos
Offered 1994/95 and 1995/96

GRKB14S: Advanced Modern Greek
Telephone ID#: 07221433
An intensive study of the language in its everyday and literary form, including *readings of annotated literary prose works.*
Prerequisites: GRKB13 or permission of instructor
Exclusions: (GRKB10), MGR247 (GRK247); Lyceum Diploma from Greece
Session: Winter Day
G. Kirikopoulos
Offered 1994/95 and 1995/96

GRKC22Y Images of Modern Greece: 1936 to the Present
Telephone ID #: 07232263
An examination of the social, political, and cultural development of modern Greece in the last quarter-century.
This chronological study of one of the most vital moments in modern Greek history will focus first on the time of the Metaxas dictatorship, World War II and the civil war; then on the "boom" years from 1960 to 1967; and lastly on the period from the establishment of the military junta to the present. Analysis of social, economic, and political phenomena will be complemented by a detailed study of cultural expression in such diverse fields as literature, music, theatre, cinema, and folklore. Our field of enquiry will include selections from the work of poets, novelists, and dramatists such as Seferis, Elytis, Vrettakos, Tachtsis, and Kehaidis, of Karolos Koun and the Art Theatre; of seminal composers Theodorakis and Hadjidakis, and their heirs; and of the folklorist Domna Samiou. The final stage of the course will stress developments of the last decade.
Lectures and seminar discussion.
Exclusion: (GRKB22), GRK250
Prerequisite: (GRKB10), GRKC14, or permission of instructor
Session: Winter Day
G. Kirikopoulos
Not offered 1994/95

GRKC30-34F
GRKC35-39S
GRKC40Y Supervised Reading in Modern Greek
Reading of texts in Modern Greek chosen by consultation between students and faculty.
Students who wish to enter the supervised reading programme should enrol in any of the above courses. They should then contact the co-ordinator and discuss what they want to read.(This will depend to some extent on time available.) The student will meet regularly with the tutor - the exact arrangements depending on the difficulty of the chosen text and the level of the student's ability. Problems in the text will be discussed as well as the literary qualities and cultural context of the work being studied.
Exclusion: (GRKB30-35, GRKB35-39, GRKB40), GRK428
Prerequisite: One of GRKC14,GRKC22, GRKC23, GRKC24 or demonstrated competence in reading Modern Greek
Session: Winter Day
Co-ordinator: *G. Kirikopoulos*
Offered 1993/94 and 1994/95

Courses Not Offered in 1993/94

Classics

CLAB10F/S Greek and Latin for Scientists
Exclusion: CLAB11
Offered 1994/95
Not offered 1995/96

CLAB32F/S The Age of Nero
Exclusion: (HUMB24), CLA351

CLAC02F/S Selected Topics in Classical Civilization
Prerequisite: One full course equivalent in CLA or GRH or permission of instructor

CLAC08F/S Ancient Drama: Tragedy
Exclusions: (DRAB14), (CLAB02), (CLAC04); CLA100, CLA300
Prerequisite: CLAA01Y or one full course equivalent in English or another literature
Offered 1994/95
Not offered 1995/96

CLAC09F/S Ancient Epic: The Oral Tradition
Exclusions: (CLAB01), (CLAC03); CLA100, CLA215, CLA255
Prerequisite: CLAA01Y or one course in English or another literature
Offered 1994/95
Not offered 1995/96

CLAC23F/S Christianity in the Greco-Roman World
Exclusion: (CLAB23)
Prerequisite: CLAA01Y or permission of instructor
Offered 1994/95
Not offered 1994/95

Greek and Roman History

GRHB01Y Greek History from the Bronze Age to the Death of Alexander

GRHC25Y Political and Social Life in Classical Athens
Prerequisite: GRHB01 or any related GRH course
Not offered 1994/95

GRHC29Y The Romanization of Western Europe 200 BC - AD 400
Prerequisite: GRHB04Y or any related GRH or CLA course

Greek

GRKB23F/S Modern Greek Music
Offered 1994/95

GRKC23F/S Modern Greek Cinema and Theatre
Prerequisite: (GRKB10), GRKB13 or GRKB14 or CLAA01 or any related course in Greek or Cinema or Drama

GRKC24F/S Classical Themes in Modern Greek Literature
Prerequisite: (GRKB10), GRK B13 or GRKB14 or any related course in GRK, CLA, or GRH

Cognitive Science

Supervisor: R.I. Binnick
Cognitive Science is the study of knowledge - how human beings, other animals, and even machines acquire knowledge, organize and store that knowledge, and use that particular knowledge to solve problems. Cognitive scientists are particularly interested in the way we use symbolic systems, such as natural or computer languages, drawing, or mathematical notation, to organize our knowledge of the world. Cognitive Science considers questions like: Are we born with some knowledge already in place? How does our experience of the world allow us to

develop knowledge? How does the knowledge we already have affect our experience of the world? Is knowledge stored as visual images, words, or abstract propositions? How do we decide which pieces of information are relevant to a specific problem? How do we master and store the complicated system of rules that allows us to use language? How do language and culture affect our understanding of the world? How is the knowledge stored in a computer like and unlike the knowledge stored in our heads?

Researchers in philosophy and psychology, linguistics, computer science and anthropology all use different methods to investigate these questions and have all provided part of the answers. The Cognitive Science Programmes (Specialist and Major) include courses from all these disciplines--from the humanities and the sciences at both the theoretical and the practical level.

In addition to the usual opportunities for employment and graduate studies available to students who earn degrees in Cognitive Science, the Faculty of Education, University of Toronto, considers four year graduates of the Specialist Programme in Cognitive Science to have an excellent preparation for application to the Primary Junior Division of the Bachelor of Education Programme. Applicants should have an overall 70% average and appropriate experience.

The Specialist Programme requires thirteen courses; the Major Programme requires eight courses.

Specialist Programme in Cognitive Science

Supervisor: R.I. Binnick

Notes: (1) Students should check the prerequisites, corequisites and exclusions for all courses marked with an asterisk (*). Some courses have enrollment limits and may require balloting. (2) Cognitive Science students should consult with the supervisor of studies before selecting their Computer Science courses. (3) Students should also note that several courses in CSC, LIN, PHL and PSY offered on the St. George campus can be applied to their degree programme by special arrangement with the supervisor of studies.

Required Courses

Seven full-course equivalents:

PSYA01Y	Introduction to Psychology
LINA01Y	General Linguistics
PHLA01Y	Fundamental Questions of Philosophy
CSCA06S	Computer Basics
or	
CSCA58F/S*	Introduction to Computing
COGB01Y*	Elements of Cognitive Science
PSYB07F/S	Data Analysis in Psychology
PSYB57F/S*	Memory and Cognition
PHLB20F/S	Belief, Knowledge and Truth
PHLB81F/S	Theories of Mind
PLIC55F/S*	Psycholinguistics

Optional Courses

Psychology

Two full-course equivalents chosen from the following, to include either PSYB50F/S or PSYB51F/S or both:

PSYB10F/S*	Introduction to Social Psychology
PSYB20F/S*	Introduction to Developmental Psychology
PSYB50F/S*	Sensation and Perception
PSYB51F/S*	Perception and Cognition
PSYB60F/S/H*	Brain Mechanisms and Behaviour: 1
PSYB65F/S*	Human Brain and Behaviour
PSYC08F/S*	Experimental Design in Psychology
PSYC26S	Developmental Psychology Laboratory
PSYC34F/S*	Psychometric Methods Laboratory
PSYC54F/S*	Cognition and Representation
PSYC61H*	Brain Mechanisms and Behaviour: 2
PSYC64H*	Psychobiology of Sensory Systems and Their Development
PSYC85F/S*	History of Psychology
PSYD34S	Human Intelligence
PSYD50F/S*	Current Topics in Memory and Cognition
PSYD53F/S*	Psychology and the Law
PSYD62H*	Neuroplasticity: Mechanism and Function
COGC91F/S*	Supervised Study in Cognitive Science

Linguistics

Two full-course equivalents chosen from the following:

LINB01Y*	Practical Language Analysis
LINB09F/S*	Phonetics: The Study of Speech Sounds
LINB25F/S*	Second Language Learning
LINC02F/S*	Phonology
LINC11Y*	Syntax
LINC12F/S*	Semantics: The Study of Meaning
LINC14F/S*	Pragmatics: The Study of Language Use
LINC26F/S*	Second Language Teaching
PLIC24F/S*	Developmental Psycholinguistics
PLID55F/S*	Disorders of Speech and Language
COGC92F/S*	Supervised Study in Cognitive Science

Philosophy and Theoretical Psychology

One full-course equivalent chosen from the following:

COGD10F/S*	Supervised Study in Cognitive Science
PHLB15F/S	Philosophy of Education
PHLB20F/S	Belief, Knowledge, and Truth
PHLB48F/S	Philosophy in the Late Modern Age
PHLB50F/S	Symbolic Logic I
PHLB70F/S*	Philosophy of Science
PHLB80F/S	Philosophy of Language
PHLB81F/S	Theories of Mind
PHLC48F/S	Philosophy in the Late Modern Age II
PHLC50F/S	Symbolic Logic II
PHLC52F/S	Modal Logic and Probability
PHLC54F/S	Metalogic
PSYC82F/S*	Theoretical Psychology
PSYD80F/S*	Current Topics in Theoretical Psychology

Cognate Courses

One full-course equivalent chosen from the following:

CSCB38F/S*	Discrete Mathematics for Computer Science
CSCB58F/S*	Computer Organization
CSCB70F/S*	Computer Applications

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

Major Programme in Cognitive Science

Supervisor: R.I. Binnick

Notes: (1) Students should check the prerequisites, corequisites and exclusions for all courses marked with an asterisk (*). Some courses have enrollment limits and may require balloting. (2) Cognitive Science students should consult with the supervisor of studies before selecting their Computer Science courses. (3) Students should also note that several courses in CSC, LIN, PHL and PSY offered on the St. George campus can be applied to their degree programme by special arrangement with the supervisor of studies.

Required Courses

Four full-course equivalents

PSYA01Y	Introduction to Psychology
LINA01Y	General Linguistics
COGB01Y*	Elements of Cognitive Science
PLIC55F/S*	Psycholinguistics
PSYB57F/S*	Memory and Cognition

Optional Courses

Psychology

One and one half full-course equivalents chosen from the following, to include either PSYB50F/S or PSYB51F/S or both:

PSYB10F/S*	Introduction to Social Psychology
PSYB20F/S*	Introduction to Developmental Psychology
PSYB50F/S*	Sensation and Perception
PSYB51F/S*	Perception and Cognition
PSYB60F/S/H	Brain Mechanisms and Behaviour: 1
PSYB65F/S/H	Human Brain and Behaviour
PSYC08F/S*	Experimental Design in Psychology
PSYC34F/S*	Psychometric Methods Laboratory
PSYC54F/S*	Cognition and Representation
PSYC85F/S*	History of Psychology
PSYD50F/S*	Current Topics in Memory and Cognition
COGC91F/S*	Supervised Study in Cognitive Science

Linguistics

One and one half full-course equivalents chosen from the following:

LINB01Y*	Practical Language Analysis
LINB09F/S*	Phonetics: The Study of Speech Sounds
LINB25F/S*	Second Language Learning
LINC02F/S*	Phonology
LINC11Y*	Syntax
LINC12F/S*	Semantics: The Study of Meaning
LINC14F/S*	Pragmatics: The Study of Language Use
LINC26F/S*	Second Language Teaching
PLIC24F/S*	Developmental Psycholinguistics
PLID55F/S*	Disorders of Speech and Language
COGC92F/S*	Supervised Study in Cognitive Science

Cognate Courses

One full-course equivalent chosen from the following:

PHLB15F/S	Philosophy of Education
PHLB20F/S	Belief, Knowledge and Truth
PHLB48F/S	Philosophy in the Late Modern Age
PHLB50F/S	Symbolic Logic I
PHLB70F/S*	Philosophy of Science
PHLB81F/S	Theories of Mind
PHLC48F/S	Philosophy in the Late Modern Age II
PHLC50F/S*	Symbolic Logic II
PHLC52F/S	Modal Logic and Probability
PHLC54F/S	Metalogic
PSYC82F/S*	Theoretical Psychology
PSYD80F/S*	Current Topics in Theoretical Psychology

CSCA02F/S	How Computers Are Used
CSCA06S	Computer Basics
CSCA58F/S*	Introduction to Computing
COGD10F/S*	Supervised Study in Cognitive Science

COGB01Y Elements of Cognitive Science
Telephone ID #: 33420163
A general introduction to the problems and methods of Cognitive Science.

The focus will be on such topics as the nature of mind; processes of perception, cognition, and learning; information storage and retrieval in the mind; mental representations; the relationship of thought and language; and the artificial modeling of mental processes.
Exclusion: JUP250
Prerequisites: PSYA01, LINA01
Session: Winter Day
R.I. Binnick
Offered every year

COGC91F/S/H
COGC92F/S/H
COGD10F/S/H 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.
Prerequisites: Three FCEs at the B or C level in COG and/or LIN and/or PSY; permission of supervisor.
Session: Winter Day
TBA

Computer Science

Discipline Representative: V. Hadzilacos (287-7256)
Computer science is the study of the use of computers to process information. The form of this information may vary widely, from the business person's records or the scientist's experimental results to the linguist's texts. One of the fundamental concepts in computer science is the algorithm -- a list of instructions that specify the steps required to solve a problem. Computer science is concerned with producing correct, efficient, and maintainable algorithms for a wide variety of applications. Closely related is the development of tools to foster these goals: programming languages for expressing algorithms; operating systems to manage the resources of a computer; and various mathematical and statistical techniques to study the correctness and efficiency of algorithms.
Theoretical computer science is 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 Specialist Programme in Computer Science prepares a student for graduate study and for a professional position in the computer field. In the Specialist Programme for Data Management there is an emphasis on information system development, an area of increasing importance to business, industry, and government. It can lead to graduate study but is designed primarily to prepare a student for a professional position.

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

Please refer to the Physical Sciences section of the Calendar for the following six Programmes.

Specialist Programme in Computer Science

Specialist Programme in Computer Science and Mathematics

Specialist Programme in Computer Science and Physics

Specialist Programme in Computer Science and Statistics

Specialist Programme in Co-op Computer Science and Physical Sciences

Specialist Programme in Physical Sciences

Major Programme in Mathematical Science (Computer Science)

Specialist Programme in Computer Science for Data Management
Supervisor: G. Cupit (287-7253)
NOTE: Due to enrolment restrictions in required management courses, registration in this Programme is limited. A maximum of twenty students will be admitted annually to the Second Year of the Programme. Selection will be based on grades in first-year courses in Computer Science and Calculus. There are thirteen and one- half courses required for the Specialist Programme in Computer Science for Data Management. The courses may be taken in a different order than that listed below, but care must be taken to ensure that prerequisites are satisfied and conflicts avoided.

First year:
CSCA58F, MATA26Y or (MATA27Y) or (MATA55Y), MATA04Y, MGTA02Y, ECOA02Y

First or Second Year:
CSCB70S

Second year:
CSCB28F, CSCB38F, CSCB58S, ECOB04Y or ECOB08Y, both MATB41F and MATB42S or MATB05Y

Third year:
CSCC24S, CSCC78F, MGTB02Y, STAB47S*
* A lower-level statistics course is normally a prerequisite to STAB47S.

Third or fourth year:
CSCC64S, 434
Three half-courses to be chosen from the following options. Any one of: CSCC50F, C51S. Any two of: CSCC54F, C85F, 340, 372, 418, 428, 444, 454, 458, 468, 484, 485, 488, including at least one of: CSCC85, 372, 458, 468, 488.

Note that only CSCC50, C51, C54, C64 and C85 are available at Scarborough; the remaining courses must be balloted for and completed at the St. George Campus. Consult the Department of Computer Science Undergraduate Student Handbook. In completing the Programme, a student is discouraged from including any Computer Science courses other than those required above.

The following courses are offered only on the St. George Campus. Consult the Department of Computer Science Undergraduate Student Handbook for more details.

CSC300	Computers and society
CSC318	Computer graphics and applications
CSC336	Numerical methods
CSC340	Information systems analysis and design
CSC372	Microprocessor software
CSC418	Interactive computer graphics
CSC428	Human-computer interaction
CSC434	Data management systems
CSC438	Computability and logic
CSC444	Economics of computers
CSC446	Computational methods for partial differential equations
CSC448	Formal languages and automata
CSC454	The business of software
CSC458	Computer Networks
CSC465	Programming methodology
CSC468	Operating systems
CSC478	Computer algebra
CSC484	Applied artificial intelligence
CSC485	Introduction to computational linguistics
CSC488	Language processors

Major Programme in Computer Science
The Major Programme in Computer Science is no longer offered. Students registered in it will be allowed to complete it.

CSCA02F/S How Computers Are Used
Telephone ID # for CSCA02F: 03710233
Telephone ID # for CSCA02S: 03710253
Parts of a computer and their interconnection. System operations: commands, files, security. Common applications: games, text processing, spreadsheets. Problem solving with computers: algorithms and basic programming concepts. Other applications and topics: data organization, communications, office automation, artificial intelligence, computing in other academic disciplines. (Students will use micro-computers and will do some programming, but the aim of the course is to show how computers are used, not to teach programming.) Primarily for non-science students, but may be followed by other CSC courses.
Exclusion: SMC104H; VIC104H; CSC104; (CSCA04) CSCA06S This course may not be taken after or concurrently with any other CSC course.
Session: Winter Day

CSCA06F Computer Basics
Telephone ID # : 03710633
Basic concepts and terminology. Introduction to programming using the Turing language: Conditional statements and loops; arrays and records; subprograms. Use of computers: spreadsheets, database packages, computer graphics, word processors, communication packages.

This course is intended for students with no prior exposure to computer programming. Students who have some

programming experience may enroll directly in CSCA58. Students who are primarily interested in the use of computers, rather than in computer programming, will find CSCA02H more relevant. This course may not be taken for credit after or concurrently with any other CSC course.
Exclusion: CSCA02; CSC104, SMC104, VIC 104.

CSCA57S Introduction to Scientific Computing
Telephone ID #: 03715753
An introduction to the use of computers in the physical sciences. Choice and design of algorithms and their implementation in a high level computer language, such as *C* or *FORTRAN*, for the solution of problems arising in the physical sciences. Topics will include elementary numerical analysis, such as numerical integration, mathematical modelling of physical systems, data fitting and interpolation. The use of database systems for information storage and query and the use of graphical display devices and software for visualization of physical systems will be considered. The use of computer algebra systems in the physical sciences will also be considered. (Intended primarily for physical sciences students who do not plan to pursue any of the Programmes in Computer Science or Cognitive Science.)
Corerequisite: MATA26Y, PHYA01Y

CSCA58F/S Introduction to Computing
Telephone ID #: 03715833
Design and analysis of algorithms; reasoning about programs, their correctness and efficiency. Procedural abstraction and modular design: subprograms, recursion and modules. Data abstraction: Data types and data structures. Comparison of several searching and sorting algorithms.

Students with no programming experience may wish to take CSCA06 before CSCA58. Students who enroll in CSCA58F and find the course too difficult may "drop down" to CSCA06F. 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 semester.)
[redacted]
Prerequisite: OAC in Algebra and Geometry, one other OAC in Mathematics, and some programming experience.
Session: Winter Day
Note: Students who have completed CSCA58 may not subsequently receive credit for CSCA06.

CSCB09S Software Tools in Unix and C
Telephone ID #: 03720953
Introduction to programming in the C language and to the use of programmable command interpreters ("shells") in the UNIX operating system. Practice with UNIX software tools; their strengths and weaknesses.
Exclusion: CSC209
Prerequisite: CSCA58
Session: Winter Day

CSCB28F File Structures and Data Management
Telephone ID #: 03722833
An introduction to techniques for storing, accessing, and managing long-term data in computer systems. Hardware and software aspects of data processing: processors, storage devices, communications, file I/O control. Techniques for organizing and managing files: serial files, direct files, indexed files, multikey files, integrated files, file systems. Introduction to data base management systems with emphasis on relational data base systems.
Exclusion: CSC228
Prerequisite: CSCA58
Session: Winter Day

CSCB38F Discrete Mathematics for Computer Science
Telephone ID #: 03723833
A rigorous treatment of certain aspects of discrete mathematics with applications to computer science. Emphasis on the basic properties and fundamental algorithms concerning integers (including induction, Euclidean algorithm, modular arithmetic), and on logic (including propositional and predicate calculus and simple formal theories). Application to topics such as program correctness, formal program verification, algorithms from graph theory, and elementary set theory.
Exclusion: CSC238
Prerequisite: CSCA58
Corerequisite: MATA04Y (MATA40)
Session: Winter Day

CSCB58S Computer Organization
Telephone ID #: 03725853
This course is designed to give students an understanding of the operation and the hardware of a modern digital computer.

Specific topics include: an introduction to boolean algebra, the design and 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 conduct experiments with digital logic circuits.
Enrolment limit: 100.
Exclusion: CSC258
Prerequisite: CSCA58 or CSCA57 (strongly recommended: PHYA11)
Session: Winter Day

CSCB70S Computer Applications
Telephone ID #: 03727053
An introduction to the representation and applications of graphs, computer simulation models, artificial intelligence, and numerical methods, including the use of data types such as stacks, queues, trees and heaps. Some exposure to languages such as Fortran, PL/I, and Pascal. Two hours of lectures, and a two-hour tutorial per week.
Exclusion: CSC118, 158, 160, 270, (CSCA68)
Prerequisite: CSCA58, or CSCA57 and permission of instructor.
Corerequisite: MATA26 or (MATA27)
Session: Winter Day

CSCC24S Principles of Programming Languages
Telephone ID #: 03732453
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 Euclid, Prolog, Smalltalk, and Simula. Enrolment limit: 100.
Exclusion: CSC324
Prerequisite: CSCB38 (strongly recommended: CSCB58)
Session: Winter Day

MATC31F Combinatorics
Telephone ID #: 20433133
A brief survey of the field of discrete mathematics is 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.
Exclusion: (JMCC31)
Prerequisite: MATB44/CSCB38 and at least one other B-level course in Mathematics or Computer Science.
TBA
Session: Winter Day

CSCC50F Numerical Algebra and Optimization
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 systems of nonlinear equations.
Exclusion: CSC336H, CSC350
Prerequisite: CSCA57 or CSCB70 (or CSCA68), MATA04Y, MATB41F and MATB42S or (MATB05Y)
Session: Winter Day

CSCC51S 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: ACT323H, CSC336H, (JMCC51), CSC351
Prerequisite: CSCA57, or (CSCA68) or CSCB70, MATA04Y, MATB41F and MATB42S or (MATB05Y)
Recommended Preparation: CSCC50
Session: Winter Day

CSCC64S 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: CSC364
Prerequisite: CSCB38H
Session: Winter Day

CSCC78F Data Structures and Algorithm Analysis
Telephone ID #: 03737833
Abstract data types such as priority queues and dictionaries. Advanced data structures for main memory resident information, such as binomial heaps, 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 solving and a theoretical treatment of the data structures.
Exclusion: CSC378
Prerequisite: CSCB28 and CSCB38
Session: Winter Day

CSCC85F Microprocessor Systems
Telephone ID #: 03738533
Hardware and software aspects of microcomputers and microprocessors. Instruction sets, addressing modes, memory devices, bus structures. Input/output and interrupt mechanisms. Assembly language and high- level language programming. System and applications software. Laboratory experiments will provide hands-on experience. Enrolment limit: 45.
Exclusion: ELE385
Prerequisite: CSCB58, and PHYA01Y or PHYA11S or permission of instructor.
Session: Winter Day

CSCD94H Computer Science Project
Telephone ID #: 03749443
This half-course involves a significant project in any area of computer science. The project may be undertaken individually or in small groups. The course 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.
Exclusion: CSC494
Prerequisite: Three C-level computer science half- courses, a GPA of 2.50, and permission of the Programme Supervisor.
Enrolment procedures: Project Supervisor's note of agreement to be presented to the Programme Supervisor by whom a Special Permission will be issued for registration.
Session: Winter Day

CSCD95H Computer Science Project
Telephone ID #: 03749543
Same description as CSCD94H. Normally a student may not take two project half-courses on closely related topics or with the same supervisor.

If an exception is made allowing a second project on a topic closely related to the topic of an earlier project, higher standards will be applied in judging it. We expect that a student with the experience of a first project completed will be able to perform almost at the level of a graduate student.
Exclusion: CSC495
Session: Winter Day

Courses Not Offered in 1993-94

MATC32F Graph Theory and Algorithms for itsApplications
Exclusion: (JMCC32)
Prerequisite: MATB31 or (MATB44) or CSCB38 and at least one other B-level course in Mathematics or Computer Science.

CSCC54F Computer-Based Simulation Models
Exclusion: CSC354
Prerequisite: CSCB70 (or CSCA68) STAB47S

Co-operative Programme in Administration

Director: H. Wittmann (287-7107)
Co-ordinator: B. Abramson (287-7112)
Supervisor of Studies: TBA
The Co-operative Programme in Administration is a work-study programme which combines academic studies, primarily in Management, Economics and Political Science, with work experience in public and private enterprises. The programme alternates study terms with work terms and typically requires almost five years to complete. Administration students learn through both studies and practical experience about:
- decision-making in both business and government
- the management of policies and programmes dealing with complex economic, political, social and business problems
- financial and management accounting
- the allocation of resources
- policy and economic analysis

Students prepare for careers in business, government, regulatory agencies, crown corporations or for further studies in the Social Sciences (MA), Business Administration (MBA), Public Administration (MPA), Chartered Accountancy (C.A.), Law (LLB), Industrial Relations (MIR) and Education (B Ed).

Admission to the Programme
Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or first year university. The timing of work placements for students who receive transfer credit will depend upon the particular university courses completed. When applying, applicants must indicate the special code for this Scarborough 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. **This co-op application must be received by the Scarborough College Registrar's Office no later than April 15, 1993 to ensure an applicant's consideration. In order to allow sufficient time for processing, it is therefore important that the applicant apply to the University of Toronto by March 1, 1993.**

Note that enrolment in the programme is limited. Admissions are granted on the basis of applicants' interest and potential ability in administration, accomplishment and grades in both verbal and quantitative studies, and a letter of reference from a high school teacher or university instructor. Interviews may be required.

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

Specialist (Co-operative) Programme in Administration
This programme requires eight four-month terms of study, four work terms and two "off" terms over a five year period. In addition to the twenty full-course credits needed for graduating, extra credits will be awarded for the work terms. Students begin with a full academic year of study, then alternate study and work terms, and conclude with a final eight months of study. Exceptionally, with the agreement of the director and co-ordinator, a fifth work term may be allowed. Work terms are arranged and scheduled by the Office of Co-operative Programmes but must be won by students in competition with co-operative students from this and other universities. During work terms students gain experience in a wide range of departments within government, business enterprises or public agencies. Depending on their needs and abilities students work in areas such as **accounting, administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy and strategic planning.**

Careers in Accountancy
The college offers a significant number of courses which have been recognized as meeting part of the educational training of Chartered Accountants, Certified General Accountants and Certified Management Accountants. Appropriate co-op work terms with designated C.A. firms will be recognized by the Institute of Chartered Accountants of Ontario as part of their internship requirement.

Evaluation of Work Term
Performance on each work term is evaluated by both the employer and 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.

To maintain standing in the programme, to be eligible for a work term, and to receive specialist certification upon graduation, a student must
- complete a full-time course of studies (at least two full-course equivalents and normally 2.5) during each study term
- maintain a cumulative grade point average of 2.50
- receive a satisfactory evaluation for work term performance and work term reports

Notes:
1. EACH COURSE MAY BE COUNTED ONLY ONCE IN SATISFYING WORK PLACEMENT AND PROGRAMME REQUIREMENTS.
2. IT IS THE STUDENTS' INDIVIDUAL RESPONSIBILITY TO ENSURE THAT THEY HAVE COMPLETED THE CORRECT COURSES TO MAKE THEM ELIGIBLE FOR EACH WORK TERM AND THAT THEY HAVE CORRECTLY COMPLETED PROGRAMME AND DEGREE REQUIREMENTS FOR GRADUATION.

Eligibility for work terms
To compete for a work term a student must be in good standing in the programme and must have completed
- for the first work term: seven full-course equivalents, including one of ECOA02 or ECOA03, MGTA02, MGTB02, POLA50, and one of the courses listed in Section A, IV (below).
- for the second work term: nine full-course equivalents including the above courses and MGTB03, ECOB03 or ECOB04.
- for the third work term: eleven full-course equivalents including the above courses,

a statistics half-course from section A, II, (below) and MGTB27.
- for the fourth work term: thirteen full-course equivalents including the above courses.

Curriculum
In the first two years of study all students follow a common core of studies (section A below).
- beginning in the third year, students choose an advanced option (Section B, below) from the following fields of administrative studies: Economic Policy, Policy Analysis, and Management. The choice should be made on the basis of the student's career goals, personal interests and skills.
- advanced courses in Computer Science, Economics, Management, Mathematics, Political Science, Psychology, and Sociology have prerequisites so students must plan their studies with care.
- EACH STUDENT'S CURRICULUM REQUIRES THE ANNUAL APPROVAL OF THE SUPERVISOR OF STUDIES. IN ADDITION, ALL COURSE CHANGES MUST BE APPROVED BY THE SUPERVISOR OF STUDIES.

If courses are not available, students should check with the supervisor of studies for alternatives.

For the first year (Winter Session) a student's course selections will depend upon which introductory course in ECO is chosen, since ECOA02 has a corequisite of MATA28 or MATA26*. If ECOA02 is selected, a student will also take MATA28, MGTA02, MGTB02, and either POLA50 or one of the courses listed in Section A, IV (below).

If ECOA03 is selected, a student will also take MGTA02, MGTB02, POLA50, and one of the courses listed in Section A, IV (below).

Students must complete 15 full-course equivalents from the following curriculum in order to fulfill the academic requirements for this specialist programme. The remaining 5 full-course equivalents for the degree can be chosen from the entire range of courses in the Calendar.
*Calculus (MATA28 or MATA26) is an optional course for this programme. Prerequisites will have to be met.

A. CORE COURSES
(11.0 full-course equivalents)

I. SOCIAL SCIENCE FOUNDATIONS REQUIRED (6.5 full course equivalents)

Economics Courses
ECOA02Y or
ECOA03Y Introduction to Economics
ECOB03Y or
ECOB04Y Price Theory

Management Courses
MGTA02Y Introduction to Management
MGTB02Y Financial Accounting
MGTB03F/S Management Accounting
MGTB27Y Organizational Behaviour

Political Science Courses
POLA50Y Introduction to Canadian Politics

II. BASIC SKILLS REQUIRED (1.5 full-course equivalents)

a) Computer Science
CSCA02F/S How Computers Are Used
CSCA06F/S Computer Basics: Fundamental Concepts and Terminology
CSCA58F/S Introduction to Computing

b) Statistics
ECOB10F/S Quantitative Methods in Management
(Note: Students who choose Economic Policy as their Advanced Option should take ECOB09Y Quantitative Methods in Economics.)

c) one of:
ECOB35F/S Public Decision Making
ECOB68F/S Comparative Economic Systems
ECOC32F/S Economics of the Public Sector

III. BEHAVIOURAL FOUNDATIONS REQUIRED (1.0 full-course equivalent)

To be selected from courses within the Humanities, Life & Social Science Divisions. The intention of this requirement is to provide students with an understanding of human behaviour, attitudes and social issues within the context of the work environment.
Examples:
ANTB23F/S Human Nature: An Anthropological Inquiry
MGTC22F/S Personnel Administration
MGTC25F/S Organizational Design
MGTC26F/S Comparative Organizational Behaviour
MGTC59S Management Ethics
PHLB01F/S Ethics I
PHLB05F/S Social Issues
PSYA01Y Introduction to Psychology
PSYB10F/S Introduction to Social Psychology
SOCB33Y Sociology of Work & Industry

IV. HISTORICAL & CULTURAL FOUNDATIONS REQUIRED (2.0 full-course equivalents)

To be selected from the Humanities Division and must include one of:
HISA01Y The European World: An Introduction to History
HISB02Y Modern Britain
HISB03Y History of the United States
HISB04Y Introduction to Canadian History
HUMA01Y Prologue
HUMA02Y Composition: An Introduction to Expository Writing
Language Any language course beyond the Grade 13 or OAC level

B. ADVANCED OPTIONS
(4.0 full-course equivalents)
To be selected from one of the following areas:

I. ECONOMIC POLICY
Required:
a) ECOB07Y or ECOB08Y
b) 2.0 full-course equivalents in Economics
c) 1.0 full-course equivalent in Political Science or Management

II. POLICY ANALYSIS
Required:
a) 3.0 full-course equivalents in Political Science selected from: Canadian Government, Public Policy/Public Administration, or Comparative Politics (Industrial Countries)
b) 1.0 full-course equivalent in Economics or Management

III. MANAGEMENT
Required:
a) 3.0 full-course equivalents in Management
b) MGTC42F/S
c) 0.5 full-course equivalent in Economics

C. ELECTIVES
(5.0 full-course equivalents)

ADMC01-C05H Administration Co-Op Work Term
Work terms are an integral part of the co-op curriculum. Practical work experience in an appropriate field is alternated with study terms to enhance academic studies and develop professional and personal skills. Work term reports are required at the completion of each work term.
Continuation in the 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 a required number of courses. (For details: see page 51). 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 graded on a Credit, No Credit system. There are no additional course fees for work terms.

Co-operative Programme in Arts Administration

Director: H. Wittmann (287-7107)
Co-ordinator: D. Quinn (287-7114)
Supervisor of Studies: J. Mayo (287-7191)
The Co-operative Programme in Arts Administration is designed for students with an interest both in the arts and in business or management, and normally requires four to five years to complete. It combines academic study in 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 or Art History.

Admission to the Programme
Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or first year university. The timing of work placements for students who receive transfer credit will depend upon the particular university courses completed. When applying, applicants must indicate the special code for this Scarborough 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. **This co-op application must be received by the Scarborough College Registrar's Office no later than April 15, 1993**

to ensure an applicant's consideration. In order to allow sufficient time for processing, it is therefore important that the applicant apply to the University of Toronto by March 1, 1993.

Note that enrolment in the programme is limited. Interviews are held normally in May for students who pass the initial screening. Admissions are granted on the basis of applicants' academic performance, background in one or more of the arts, interest and potential ability in Arts Administration, and a letter of reference from a high school teacher or university instructor. Facility in Mathematics at the high school level is highly desirable.

Fees

All students in a co-operative programme are required to pay additional fees as established by the University.

The Specialist (Co-operative) Programme in Arts Administration requires twenty academic courses (four years) of study and two work terms of four months each. Students complete 8.5 full-course equivalents in (A) the administrative field, 6.0 full-course equivalents in (B) the artistic field and 5.5 additional full-course equivalents from (C) an elective field. In addition extra credits are awarded for the work terms.

A. Administrative Field of Study

The following 8.5 full course equivalents are required:

AADB01Y	Introduction to Arts Administration
AADD10Y	Senior Seminar in Arts Administration
ECOA03Y	Introduction to Economics
ECOB35F/S	Public Decision Making
HUMA02Y	Composition: An Introduction to Expository Writing
MGTA02Y	Introduction to Management
MGTB02Y	Financial Accounting
MGTB27Y	Organizational Behaviour
POLA50Y	Introduction to Canadian Politics

In addition students are expected to use some of their elective field (C) to take further courses in administration. The following courses are recommended:

CSCA02F/S	How Computers are Used
ECOB03Y	Price Theory
ECOB07Y	Macroeconomic Theory and Policy
MGTB03F/S	Management Accounting
MGTC04F	Principles of Marketing
MGTC05S	Introduction to Marketing Management
MGTC10F	Management Control Systems
MGTC22F/S	Personnel Administration
MGTC30Y	The Legal Environment of Business
MGTC54Y	Industrial Relations
MGTD07F/S	Market Research
POLB53F/S	Public Policies in Canada
POLB60Y	Canadian Public Policy and Administration
POLC60F/S	Administrative Politics
POLC61F/S	Policy Development and Political Evaluation
POLC63F/S	Administrative Theories and Policy-Making
POLC64F/S	Comparative Public Administration

Please note that many of the above courses require prerequisites and/or permission of instructor.

B. Artistic Field of Study

Six full-course equivalents from one of the following fields:

I Drama

Required:

DRAB01Y	An Introduction to the Practical Elements of Theatre
DRAB20F	The History of Theatre I: From Classical Antiquity to the Renaissance
DRAB21S	The History of Theatre II: From the Elizabethan Theatre to the French Revolution
DRAB22F	The History of Theatre III: From the French Revolution to the First World War
DRAB23S	The History of Theatre IV: Theatre in the Twentieth Century
ENGB11Y	Varieties of Drama

and

One full-course equivalent from the courses listed under the Major Programme in Drama, Group A (page 65)

and

one full-course equivalent from the courses listed under the Major Programme in Drama, Group B (page 65)

II Fine Art History

Required:

Five full-course equivalents in art history, one from each of the following areas:

Classical
Medieval
Renaissance
Baroque
Modern (1750 to the present)

and

one additional full-course equivalent in art history at the C-level (see page 93 for Fine Art History courses).

III Fine Art Studio

Required:

FARA90Y	Foundation Studies in Studio*
FARA91F/S	But Why Is It Art?
FARB70F/S	Drawing I
FARB72F/S	Contemporary Issues in Printmaking
FARB74F/S	Drawing II
FARB75Y	Painting I

and

2.0 additional full-course equivalents in Fine Art Studio of which one must be at the C-level (see page 98).

* Students must meet the prerequisite for FARA90Y; an OAC in visual art or permission of instructor following a positive evaluation of a portfolio.

IV Music

Required:

MUSA01Y	Introduction to Music
MUSA09F/S	Materials of Music I
MUSB09F/S	Materials of Music II

and

4 additional full-course equivalents from Music (see page 149).

C. Elective Field of Study

A further 5.0 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 can 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 (B), or in the administrative field. 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 disciplines.

Students selecting either 2. or 3. will need to consult also with the programme supervisor in the chosen subject. The programme supervisor of Arts Administration can supply details of suggested elective packages.

CONSULTATION WITH THE SUPERVISOR OF STUDIES IS ESSENTIAL FOR ALL STUDENTS IN EACH YEAR OF THEIR PROGRAMME. IN ADDITION ALL PROGRAMME AND COURSE CHANGES MUST BE APPROVED BY THE SUPERVISOR OF STUDIES.

Work terms

Work terms may begin in September, January or May and students are normally eligible for a work placement after their second year of study. The places 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 AADC01 and AADC02).

Eligibility for work placements

To compete for work placement a student must be in good standing in the Programme and must have completed at least ten full-course equivalents including:

- two full-course equivalents from the artistic field
- AADB01Y (Introduction to Arts Administration)
- HUMA02Y (Composition: An Introduction to Expository Writing)
- MGTA02Y (Introduction to Management)
- MGTB02Y (Financial Accounting)

Normally students return to their studies after each work term, and must be registered in courses after the completion of their last work term. AADD10Y is taken after the completion of the first work term.

Standing in the programme

To maintain standing in the programme, to be eligible for work placement and to receive specialist certification upon graduation a student must

- maintain a cumulative grade point average of 2.50
- receive a satisfactory evaluation for work term performance and work term reports
- complete a full course of study (at least two full-course equivalents and normally 2.5)

during each study term
- participate in special events and seminars arranged by the co-ordinator.

Courses in the first two years of the programme
The first year of study should consist of AADB01Y, one full-course equivalent from the artistic field, MGTA02Y, MGTB02Y, plus HUMA02Y, or 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 ECOA03Y, HUMA02Y (if not taken in first year) and a balanced mixture of administrative and artistic courses.

AADB01Y Introduction to Arts Administration and Policy
Telephone ID #: 00120163
The theory and practice of arts administration and policy in Canada.

The course will examine all aspects of arts administration and policy, from the economic and financial problems of artists, arts organizations, service and funding agencies, to the formulation of municipal, provincial and federal arts policies. Topics include marketing of artistic works, publicity and promotion, fund-raising, audience development, corporate, foundation and government support, and Canada's domestic and international arts policies. The teaching method will include lectures, class participation, term papers and guest speakers.
Exclusion: (HUMB90)
Session: Winter Day
TBA

AADC01 and AADC02 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 Programme and have completed certain required courses (see page 55) and pre-placement seminars. 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 earned 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.

AADD10Y Senior Seminar in Arts Administration
Telephone ID #: 00141063
The course will deal with selective problems and issues in arts administration and policy.

Capitalizing on the practical experience students have had in the field, this seminar will analyse such basic problems and issues as board management relations, corporate sponsorships, dealing with the creative personality, motivating volunteers, crisis management, the roles and responsibilities of governments and arts councils, and future directions in Canada's internal and external arts policies. Students will be expected to make presentations on these topics for discussion and evaluation in class. Extensive use will be made of case studies.

Enrolment is limited to students who have completed at least one work term in the Specialist Co-operative Programme in Arts Administration, or by permission of the instructor.
Exclusion: (HUMD10)
Session: Winter Day
TBA

Co-operative Programme in Computer Science and Physical Sciences

Director: H. Wittmann (287-7107)
Co-ordinator: G. Cupit (287-7253)
Supervisor of Studies: C. Dyer (287-7206)
The Co-operative Programme in Computer Science and Physical Sciences is a work-study programme that combines academic studies in computer science, and other disciplines in the physical sciences with work placements in public and private enterprises. The programme alternates study during the regular academic term (September to May) with work terms during the summer term (May to August).

The programme prepares students for permanent employment with government and business enterprises concerned with research and technology as well as for graduate study in computer science. Graduates receive a four-year B.Sc. with a specialist certification in Computer Science and Physical Sciences.

Admission to the Programme
Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or first year university. The timing of work placements for students who receive transfer credit will depend upon the particular university courses completed. When applying, applicants must indicate the special code for this Scarborough 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. **This co-op application must be received by the Scarborough College Registrar's Office no later than April 15, 1993 to ensure an applicant's consideration. In order to allow sufficient time for processing, it is therefore important that the applicant apply to the University of Toronto by March 1, 1993.**

Note that enrolment in the programme is limited. Admissions are granted on the basis of the applicants' academic performance, background in relevant subjects, and a letter of reference from a high school teacher or university instructor. An interview may be required.

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

The Specialist (Co-operative) Programme in Computer Science and Physical Sciences
This programme requires twenty courses (four years) of study and two work terms of four months each. Exceptionally, with the agreement of the director and co-ordinator, a third work term may be allowed. Students are eligible for their first work term after their first two years of study. Work placements are arranged by the Office of Co-operative Programmes but 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 a report for each work term.

To maintain standing in the programme, to be eligible for a work term, and to receive specialist certification upon graduation a student must
- maintain a cumulative grade point average of at least 2.50
- receive a satisfactory evaluation for work term performance and work term reports
- be registered as a full-time student during study terms

There are two courses of study offered within this co-operative programme. These will be outlined below as Option A: Computer Science and Physics and Option B: Computer Science and Statistics. Note that courses need not be taken in exactly the indicated order, but if an alternative ordering is adopted, care must be taken to ensure that prerequisites are satisfied and other conflicts avoided.
EACH STUDENT'S PROGRAMME REQUIRES THE ANNUAL APPROVAL OF THE SUPERVISOR OF STUDIES.

Option A	**Computer Science and Physics** 16 required courses
First Year	CSCA58F, CSCB70S, MATA04Y, MATA26Y, PHYA01Y
Second Year	CSCB38F, CSCB58F, CSCB28S, MATB41F and MATB42S or MATB05Y, PHYB21S, PHYB22S, PHYB23H
Third Year	CSCB09S, CSCC24S, CSCC50F, CSCC78F, CSCC85S, MATC51F, PHLB70F, PSCC01H
Fourth Year *	CSCC51S, CSCC64S, PHYC21F, PHYC22S, PSCD01F, PSCD02S, one full-course equivalent chosen from other C level Physical Sciences Division courses

* Students currently registered in year four of the programme should consult the 1990/91 *Calendar* and the programme supervisor.

Option B	**Computer Science and Statistics** 14.5 required courses
First Year	CSCA58F, CSCB70S, MATA04Y, MATA26Y, PHYA01Y
Second Year	CSCB28S, CSCB38F, CSCB58F, MATB41F, MATB42S, MATB43S, STAB22F, STAB47S
Third Year	CSCC24S, CSCC64S, CSCC78F, (STAC67F and STAC42S) or (STAC62F and STAC52S), plus one half-course equivalent from C level statistics courses, CSCC54F, and 300 and 400 level statistics courses

Fourth Year on the St. George Campus CSCC50F, CSCC51S, PSCD01F, PSCD02S, (STAC67F and STAC42S) or (STAC62F and STAC52S), plus one half-course equivalent from C level statistics courses, CSCC54F, and 300 and 400 level statistics courses on the St. George Campus

NOTE: IT IS THE STUDENTS INDIVIDUAL RESPONSIBILITY TO ENSURE THAT HE/SHE HAS CORRECTLY COMPLETED PROGRAMME AND DEGREE REQUIREMENTS FOR GRADUATION.

Eligibility for work placements:
To compete for work term placement a student must be in good standing in the programme and must have completed at least ten full-course equivalents.

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

CSPC01-C03H 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 terms to enhance academic studies and develop professional and personal skills. Work term reports are required at the completion of each work term.
Continuation in a co-op programme is based on a student's ability to meet both the academic and work term requirements. To be eligible for work terms, students must be in good standing in the programme and must have completed 10 courses. Course credit of 0.5 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 graded on a Credit, No Credit system. There are no additional course fees for work terms.

Co-operative Programme in Environmental Science

Director: H. Wittmann (287-7107)
Supervisor of Studies: T. Price (287-7327)
(This programme is scheduled to begin in 1994/95, pending the approval of the Governing Council.)

Refer to the Physical Sciences Scarborough section of the Calendar for details.

Co-operative Programme in International Development Studies

Director: H. Wittmann (287-7107)
Co-ordinator: J. Maxwell (287-7113)
Supervisor of Studies: P. León (287-7173)

The Co-operative Programme in International Development is intended for students with an interest in international development, in geography, ecology and economics, and in the relations of Canada with developing countries. The programme combines academic study in the social and ecological sciences with practical work experience in a developing country, and typically requires up to five years to complete. An eight to twelve month work placement, usually with a Canadian or Third World development agency, is a central part of the programme. One of the distinctive features of the curriculum is the integration of political, economic and social development studies with courses in ecological and physical resource management. International Development Studies students learn through both studies and practical experience about:
- development economics and social and political change in developing countries
- international relations
- environmental sciences, especially the management of natural resources in developing countries
- the geography, culture, language and history of the area in which they are interested.

The programme prepares students for employment with Canadian and international governmental and non-governmental development agencies and projects. It also provides background for further studies in environmental geography, economics and political science.

Graduates receive a four-year B.A. or B.Sc. with specialist certification in International Development Studies.

Admission to the Programme
Applicants may apply to the programme directly from secondary school or may apply as transfer students from college or first year university. The timing of work placements for students who receive transfer credit will depend upon the particular university courses completed. When applying, applicants must indicate the special code for this Scarborough 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. **This co-op application must be received by the Scarborough College Registrar's Office no later than April 15, 1993 to ensure an applicant's consideration. In order to allow sufficient time for processing, it is therefore important that the applicant apply to the University of Toronto by March 1, 1993.**

Note that enrolment in the programme is limited. Interviews are held normally in May for students who pass the initial screening. Admissions are granted on the basis of the applicants' academic performance, background in relevant subjects, 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 additional fees as established by the University.

The Specialist (Co-operative) Programme in International Development Studies
This programme requires twenty courses (four years) of study and a work term of approximately ten 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 Office of Co-operative Programmes but must be won by students in competition with all applicants for the positions. Students may be responsible for financing part of the living expenses associated with placements. 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 normally work with Canadian or Third World development agencies, universities, or research institutes in a developing country.

The objective of the work placement is to provide students with experience and appreciation of the practical difficulties of development work and the flexibility required in the application of theoretical concepts. **Before the work term students must, in consultation with the Supervisor of Studies, develop a proposal for a research subject.** A critical or analytical paper on the research subject and if possible based on the work placement experience is then written during the final year in the Programme after students return from their placements. Performance on placements will be evaluated by the employer, the co-ordinator and the supervisor of studies. **Shortly after their return (typically in September or October of the final year) students must submit a brief evaluation of their placement to the programme's co-ordinator.**

Eligibility for Work Placements
To compete for work placements a student must
- have completed at least fifteen full-course equivalents including at least 10 from the core programme (Section A) and advanced options (Section B); and two full courses from the regional and language options.

After the work term students return to their studies and enroll in IDSD01Y (International Development Studies: Advanced Seminar) and such other courses as are necessary to complete their degrees.

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

All students must complete
- a common core programme (at least nine full- course equivalents) in resource management sciences and development economics and politics (Section A, below)
- an advanced option (at least three full-course equivalents) in either political economy or ecological management (Section B, below)
- a regional language and culture option (Section C, below)
- IDSD01Y, an advanced seminar related to their work placement experience
- other elective courses (Section D, below)

NOTES:
1. EACH COURSE MAY BE COUNTED ONLY ONCE IN SATISFYING WORK PLACEMENT AND PROGRAMME REQUIREMENTS.
2. IT IS THE STUDENTS' INDIVIDUAL RESPONSIBILITY TO ENSURE THAT

THEY HAVE COMPLETED THE CORRECT COURSES TO MAKE THEM ELIGIBLE FOR THE WORK TERM AND THAT THEY HAVE CORRECTLY COMPLETED PROGRAMME AND DEGREE REQUIREMENTS FOR GRADUATION.

In the first two years of study students must complete as much of the common core programme and of language studies as possible. The core programme contains three courses specially designed for International Development students: IDSB01Y International Development Studies, Political Economy; IDSB02S International Development Studies: Physical and Ecological Resource Management, and IDSC04F/S Project Management. Students must choose their regional and language option (Section C) no later than year 2 and their advanced option (Section B), no later than the beginning of year 3. In choosing courses students must pay careful attention to the prerequisites for higher level courses. Some courses in the programme are offered on other campuses of the university. Please note that course offerings on all the campuses will not be finalized until after this *Calendar* has been printed. CHECK WITH SUPERVISOR OF STUDIES FOR COURSE AVAILABILITY.

Each student's programme requires the annual approval of the Supervisor of Studies. In addition, all course changes must be approved by the Supervisor of Studies.

The curriculum requirements are as follows: Twenty full-course equivalents including:

A *Core Programme*: at least nine full-course equivalents from the following: (PLEASE NOTE THE COURSES ON ST. GEORGE CAMPUS ARE IDENTIFIED WITH*. ALSO NOTE THAT STUDENTS MUST COMPLY WITH REGULATIONS REGARDING REGISTERING IN COURSES ON OTHER CAMPUSES.)

I. *Required*:

ANTC10F/S	Anthropological Perspectives on Development

or authorized alternative

BIOB14F/S	Environmental Biology
ECOA02Y	Introduction to Economics: A Mathematical Approach

or

ECOA03Y	Introduction to Economics
EESA01F	Introduction to Environmental Science
EESB04H	Hydrology: Measurement, Estimation and Forecasting

or

*GGR206H	Introduction to Hydrology
EESB05F	Introduction to Soil Science
EESC11S	Tropical Soil Management and International Development
*FOR495F	Forestry in Development

plus one half full-course equivalent in a cognate discipline to be chosen in consultation with the Supervisor of Studies.

IDSB01Y	International Development Studies: Political Economy
IDSB02S	International Development Studies: Physical and Ecological Resource Management
IDSC04F/S	Project Management
POLB80Y	International Relations

II. *One full-course equivalent from:*

*HIS101Y	The Emergence of the Third World
POLB91Y	Politics of the Third World

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

I. *Political Economy*

Three full-course equivalents from

ANTB20Y	Social and Cultural Anthropology
ANTC11Y	The Anthropology of Women
ANTC19F/S	Economic Anthropology
ANTC60F/S	Fieldwork in Social and Cultural Anthropology
ANTC61F	Medical Anthropology I: Illness and Healing in Cultural Perspective
ANTC62S	Medical Anthropology II: Biological and Demographic Perspectives
ANTC63F	The Anthropology of Food I: Human Needs
ANTC64S	The Anthropology of Food 2: Consuming Passions
ECOB03Y	Price Theory
ECOB07Y	Macroeconomic Theory and Policy
*ECO230Y	International Economic Institutions
ECOC66F/S	Economic Development
ECOC67F/S	Development Policy* *if not taken as part of core requirements above
GGRC20F/S	Issues in Rural Development
GGRC29Y	Problems in Modern Agricultural Land Use

POLB91Y	Politics of the Third World* *if not chosen as part of core requirements
POLD93F/S	Selected Topics on Developing Areas
POLD94F/S	Selected Topics on Developing Areas
*POL445Y	Canada and the Third World
SOCC17F/S	Social Change in the Third World
WSTC10Y	Women and Development

One half-course in Statistics

II. *Ecological Resource Management*

At least three full-course equivalents chosen from

ANTB01Y	The Ecological Perspective in Anthropology
ANTC61F	Medical Anthropology I: Illness and Healing in Cultural Perspective
ANTC62S	Medical Anthropology II: Biological and Demographic Perspectives
BIOB12Y	Fundamentals of Ecology (Note: BIOA03Y Introductory Biology is a prerequisite. Students in this stream are strongly advised to take BIOA03Y)
BIOC03F	Field Course in Ecology
BIOC65H	Conservation Ecology
*BOT206Y	Applied Botany
EESB02H	Introduction to Geomorphology
EESB03H	Introduction to Climatology
EESB06H	Field Camp I - Costa Rica
EESC03H	Remote Sensing and Geographic Information Systems
EESC04H	Biogeography and Diversity
EESD01H	Hydrology: Physical Processes and Modelling
EESD05H	Hillslope Geomorphology
EESD06H	Climatic Change
*FOR455H	Advanced Forest Ecology
*FOR456H	Forest Soils II
*GGR207H	Airphoto Interpretation
*GGR305H	Biogeography
*GGR310H	Problems in Biogeography
*GGR355H	Environmental Change
*GGR393H	Methods of Environmental Impact Assessment
*GGR416H	Field Studies in Environmental Assessment
*GGR461H	Remote Sensing of Environment
HUMB01Y	Environment & Human Life I

One half-course in Statistics

C *Regional and Language Options:* At least two full-course equivalents chosen from courses dealing with a designated development region. One of these full-course equivalents should be in a language appropriate for work in developing countries. Students with a functional knowledge of an appropriate language may substitute non-language regional courses. Selection of a region and courses is subject to approval by the supervisor of studies. Some approved courses for two regions are listed below.

STUDENTS INTERESTED IN OTHER REGIONS AND LANGUAGES SHOULD CONSULT THE SUPERVISOR OF STUDIES FOR A LIST OF COURSES AVAILABLE.

I. *Latin America*

a. at least one full-course equivalent from

ANTB03F/S	The Americas: an Anthropological Perspective
ANTB07F/S	Comparative Slavery
*ANT443Y	Social Anthropology of Latin America and the Caribbean
ENGB20F/S	Contemporary Literature in English: Africa and the West Indies
*GGR244H	Historical Geography of Latin America
*GGR249H	Contemporary Latin America
*HIS291Y	Latin America: the Colonial Period
*HIS292Y	Latin America: The National Period
*HIS394Y	Protest and Change in the Caribbean
*HIS490H	Topics in Modern Latin American Social History
HUMC14Y	Topics in Latin American Culture and Literature
POLC98Y	Politics and Society in Latin America
*POL442Y	Topics in Latin American Politics I and II
*PRT280H	Aspects of Brazilian Culture
*SOC323Y	Social Change in Latin America

and

b. at least one full-course equivalent from

SPAA01Y	Introductory Spanish
SPAA02H	Language Practice I
SPAB01Y	Intermediate Spanish
SPAB02H	Language Practice II
*PRT100Y	Introductory Portuguese
*PRT222Y	Language Practice

II. *Africa*

a. at least one full-course equivalent from

ANTB05F/S	African Cultures and Societies I: Survey
ANTB55Y	*Cultures of the Middle East* and the Islamic World
ANTC06F/S	African Cultures and Societies II: Case Studies
*ANT345Y	Social Anthropology of West Africa
ENGB20F/S	Contemporary Literature in English: Africa and the West Indies
*GGR345H	Africa: Geographical Aspects of Economic Change
*HIS395Y	Black Africa in the 20th Century
*HIS495Y	Black Africa: Social and Economic History
POLC95Y	Politics and Society in Independent Africa
*POL430Y	Topics in African Politics

and

b. at least one full-course equivalent from

FREA10Y	Language Practice I
FREB10Y	Language Practice II
*NEW280Y	*Introductory Swahili*
*NEW380Y	Intermediate Swahili

Efforts will be made to accommodate students who have other regional and/or linguistic interests. See supervisor of studies.

D *Required*:

IDSD01Y	International Development Studies: Advanced Seminar

and

any five other full-course equivalents which satisfy the degree requirements.

In addition to the courses listed, students should be aware of the following recommended courses:

MGTB02Y	Financial Accounting
ECOC61F/S	International Economics: Finance
ECOC62F/S	International Economics: Trade Theory
*ECO328Y	International Economics
*FOR466Y	Wildlife Ecology and Management
*GGR334H	Water Resource Management
*GGR356H	Energy-Environment Interaction
*GGR461H	Remote Sensing of Environment
*JPE400Y	The Political Economy of International Development

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

EESA01F Introduction to Environmental Science

An introductory course which integrates subject matter and concepts from diverse scientific disciplines to provide a coherent framework for analyses of environmental issues, environmental management and policy development. The course examines changes in scientific and societal attitudes to the environment and the developments which have led to the current critical state of the environment. The processes of human impact on ecosystemic functioning are examined and the environmental sustainability of societal patterns is critically analysed in local, regional and global contexts. Critical current issues such as the nature of evidence of environmental degradation and the compatability of scientific method and regulatory responsibility will be examined within the framework of specific case histories.

The course will involve two hours of lectures each week and two hours of laboratories or tutorials every two weeks. Local field trips may be involved.
Session: Winter Day
TBA

IDSB01Y International Development Studies: Political Economy

Telephone ID #: 08120163
Introduces students to major development problems, the principal social, economic and political factors that condition these and the impact on them of various development strategies pursued in a sample of developing countries. The course is composed of five sections: the evolution and meaning of the term "third world"; the evolution of the socio-economic situation in less-developed countries; absolute poverty, inequality, oppression and socio-cultural strain; conservative, reformative and revolutionary development strategies; recent developments in thought about developing countries including advocacy of "basic needs" strategy and a New International Economic Order.
Prerequisite: A course in Economics or Politics or permission of the instructor
Session: Winter Day

IDSB02S International Development Studies: Physical and Ecological Resource Management

Telephone ID #: 08120253
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.
Session: Winter Day

IDSC01-C03H 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 begin work on a major research project based on their work placement experience. To be eligible for placement, students must have completed 15 full-course equivalents including 12 IDS (10 core plus language and regional option) credits and maintain 2.5 G.P.A. The IDS work placement normally begins after the third year of study and requires a minimum of 2 years of residence in the programme. Course credit of 0.5 full-course equivalent is granted for each four month work period. Work term credits are in addition to the 20 full-course degree requirement and are graded on a Credit, No Credit system.

There are no additional course fees for work terms.

IDSC04F/S Project Management

Telephone ID # IDSC04F: 08130433
Telephone ID # IDSC04S: 08130453
A study of the phases of the project management cycle with emphasis on situational analysis and identification of needs, project implementation, project monitoring and evaluation.

Project management will be considered in the context of the mission and programme activities of international development agencies. Students will be familiarized with basic organizational development theory and the various approaches of Canadian Non Governmental Organizations (NGOs) engaged in the delivery of development assistance. The integration of gender and development and environmental issues into the project process will be discussed.

CIDA's policies and practices governing project administration as well as its project management model will also be examined. Students will carry out field visits to local development NGOs to analyze the project approach used by the agency. Practising professionals will also be invited to talk about development issues and project management.
Exclusion: (IDSB03)
Prerequisite: IDSB01Y & IDSB02Y and permission of the instructor.
Session: Winter Day

IDSD01Y International Development Studies: Advanced Seminar

Telephone ID #: 08140163
Normal enrolment in this course will be made up of IDS students who have completed their work placement. Each student will give at least one seminar dealing with their research project and/or placement. The research paper will be the major written requirement for the course, to be submitted no later than mid-March in the final year. The course will also include seminars by practising professionals on a variety of development topics.
Prerequisite: Students must have completed the first four years of the IDS Programme or its equivalent and have completed their placement. Also, permission of instructor is required.
Session: Winter Day

NOTE:

FOR courses: these courses are offered by the Faculty of Forestry. The Calendar of that Faculty should be consulted for complete course descriptions. For International Development Studies students the prerequisites for FOR456H are EESA01F, IDSB02S and GGRB29Y.
GGR courses: The normal prerequisites in GGR B-level courses may be waived by permission of the instructor for IDS students. Students in the Ecological Management stream who plan to graduate with a Bachelor of Science degree should consult the Supervisor of Studies.

Drama

Discipline Representative:
M.Q. Schonberg (287-7165)

The Drama courses at Scarborough College have been devised to serve both students who intend to specialize in Drama and Theatre studies and those who have a casual interest in the subject.

We offer two types of courses which complement each other: theoretical and practical. The theoretical courses are in the History of Theatre, in which the student becomes familiar with the development of the theatre from a non-literary point of view from its classical beginnings to the present day. These courses are augmented by courses in the dramatic literatures of several countries which are offered by members of the faculty who specialize in these areas. Advanced students may choose an Independent Studies course or Directed Reading course, where they work individually under the supervision of their own tutors.

In the practical courses, students become acquainted with all aspects of theatre production in studio situations, both as actors and technicians. Students study both with faculty members and with professional artists and teachers. Participation in public productions at the College is encouraged.

Drama offers both a major and a specialist programme.

The specialist programme is intended for students with a serious interest in drama and theatre. Students with a general interest in the discipline are encouraged to consider the major programme.

Drama students may wish to refer to the following:

Specialist Programme in the Arts
Specialist Co-operative Programme in Arts Administration

Specialist Programme in Drama

Supervisor: M.Q. Schonberg

A student is required to complete thirteen full-course equivalents, eleven in the area of Dramatic Literature and Theatre, and two in related disciplines, as follows:

1 DRAB01Y An Introduction to the Practical Elements of Theatre
2 DRAB20F The History of Theatre I: From Classical Antiquity to the Renaissance
3 DRAB21S The History of Theatre II: From Elizabethan Theatre to the French Revolution
4 DRAB22F The History of Theatre III: From the French Revolution to the First World War
5 DRAB23S The History of Theatre IV: Theatre in the Twentieth Century
6 ENGB11Y Varieties of Drama
7 ENGB50Y Modern Drama
8 Three full-course equivalents chosen from the following:
CLAC07F/S Ancient Drama: Comedy
CLAC08F/S Ancient Drama: Tragedy
DRAB05Y The Art and Nature of Comedy
DRAB07Y Drama, Theatre, and Political Revolution
DRAB24F/S Theatre in Canada
DRAB25F/S Introduction to Asian Theatrical Traditions
DRAB26F/S Women in the Theatre
DRAB27F/S Science, Power, and Hell: The Story of Dr. Faustus on Stage
DRAC20H Theatre Seminar
ENGB10Y Shakespeare
ENGB26F/S Canadian Drama
ENGC33Y* English Drama to 1642
ENGC55F/S* Drama Since 1960
ENGD10-58F/S** Studies in Major Writers
ENGD70-89F/S** Selected Topics
FREB51F/S The Classical Age: Comedy
FREB52F/S The Classical Age: Tragedy and Drama
FREC30F/S French Theatre in the 20th Century

* Students should check these courses for prerequisites.
** Course content varies from year to year. Students should check the listings in the Calendar to determine what precise courses may be pertinent to Drama in a given year.

9 Three full-course equivalents chosen from the following (no more than one full-course equivalent may be chosen from DRAD20Y-DRAD28S).
DRAC01Y Intermediate Workshop in Theatre Performance
DRAC02Y The Great Directors of the Theatre
DRAC10Y** Individual Studies in French Theatre and Drama in Translation
DRAC11Y** Individual Studies in German Theatre and Drama in Translation
DRAC12Y** Individual Studies in Italian Theatre and Drama in Translation
DRAC13Y** Individual Studies in Russian Theatre and Drama in Translation
DRAC14Y** Individual Studies in Spanish Theatre and Drama in Translation
DRAD01Y* Advanced Workshop: Performance and Directing
DRAD10F/S Supervised Performance
DRAD20Y*/DRAD21Y*/DRAD22Y*
DRAD23Y*/DRAD24Y*/DRAD25F*
DRAD26S*/DRAD27F*
DRAD28S* Supervised Reading
The student may take only one of the Individual Studies courses in any single academic year.

10 Two full-course equivalents chosen from the following:
ANTA01Y Introduction to Anthropology
ANTC05Y* Anthropological Study of Religion
CLAC09F/S Ancient Epic: The Oral Tradition
CLAC10F/S Ancient Epic: The Literary Tradition
ENGA11Y Reading Literature: The 20th Century
HISA01Y The European World: An Introduction to History
HUMA01Y Prologue
HUMA03Y Prologue II
CLAA02Y Greek and Roman Mythology
HUMB70Y Introduction to the Cinema
LINA01Y General Linguistics
LINA04F/S Introduction to Language
MUSA01Y Introduction to Music
PHLB03F/S Philosophy and Art
PSYA01Y Introduction to Psychology
SOCA01Y Introduction to Sociology

* Students should check these courses for prerequisites
** Prerequisite: ten full-course equivalents

NOTE: No more than ten full-course equivalents in DRA are permitted in the four-year degree.

Major Programme in Drama

Supervisor: M.Q. Schonberg

A student must complete seven full-course equivalents in the area of Dramatic Literature and Theatre. The following four courses comprise the core of the programme:

DRAB01Y An Introduction to the Practical Elements of Theatre
DRAB20F The History of Theatre I: From Classical Antiquity to the Renaissance
DRAB21S The History of Theatre II: From Elizabethan Theatre to the French Revolution
DRAB22F The History of Theatre III: From the French Revolution to the First World War
DRAB23S The History of Theatre IV: Theatre in the Twentieth Century
ENGB11Y Varieties of Drama

In addition, the student must take three full-course equivalents, one from Group A and two from Group B, but no more than two courses from DRAC10-C14. No more than one full-course equivalent from DRAD20Y-DRAD28S may be taken.

Group A
DRAC01Y Intermediate Workshop in Theatre Performance
DRAC02Y The Great Directors of the Theatre
DRAC10Y** Individual Studies in French Theatre and Drama in Translation
DRAC11Y** Individual Studies in German Theatre and Drama in Translation
DRAC12Y** Individual Studies in Italian Theatre and Drama in Translation
DRAC13Y** Individual Studies in Russian Theatre and Drama in Translation
DRAC14Y** Individual Studies in Spanish Theatre and Drama in Translation
DRAD01Y Advanced Workshop: Performance and Directing
DRAD10F/S** Supervised Performance
DRAD20Y*/DRAD21Y*/DRAD22Y*
DRAD23Y*/DRAD24Y*/DRAD25F*
DRAD26S*/DRAD27F*
DRAD28S* Supervised Reading

Group B
CLAC07F/S Ancient Drama: Comedy
CLAC08F/S Ancient Drama: Tragedy
DRAB05Y The Art and Nature of Comedy
DRAB07Y Drama, Theatre and Political Revolution
DRAB24F/S Theatre in Canada
DRAB25F/S Introduction to Asian Theatrical Traditions

DRAB26F/S	Women in the Theatre
DRAB27F/S	Science, Power, and Hell: The Story of Dr. Faustus on Stage
DRAC20H	Theatre Seminar
ENGB10Y	Shakespeare
ENGB26F/S	Canadian Drama
ENGC33Y*	English Drama to 1642
ENGC55F/S*	Drama Since 1960
ENGD10-58F/S***	Studies in Major Writers
ENGD70-89F/S***	Selected Topics
FREB51F/S	The Classical Age: Comedy
FREB52F/S	The Classical Age: Tragedy and Drama
FREC30F/S	French Theatre in the 20th Century
HUMB70Y	Introduction to the Cinema

* Students should check these courses for prerequisites.
** Prerequisite: ten full-course equivalents.
*** Course content varies from year to year. Students should check the listings in the Calendar to determine what precise courses may be pertinent to Drama in a given year.

DRAB01Y An Introduction to the Practical Elements of Theatre
Telephone ID #: 04020163
An introductory practical course, concentrating on the non-literary aspects of theatre.

In the workshops the student will study basic acting techniques (rudiments of 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 in at least one production per term. Three two-hour workshops per week, plus additional time as necessary for rehearsals and/or production meetings, etc. Careful preparation for each of the workshops is essential.
Exclusion: DRM200
Session: Winter Day
P. Sperdakos/M.Q. Schonberg
Offered 1994/95

DRAB20F The History of Theatre I: From Classical Antiquity to the Renaissance
Telephone ID #: 04022033
A study of the non-literary aspects of theatre from Classical Greek theatre to the Renaissance.

Areas of concentration will include classical Greek and Roman theatre, Western European Medieval dramatic traditions, and the theatre of the Renaissance, including the commedia dell'arte.

Acquaintance with representative plays of the various periods will be required. Attention will also be paid to the socio-political milieu of the theatre.

Lectures and tutorials. The text for the course will be *History of the Theatre* by Oscar Brockett. Other readings will be announced.
Exclusion: (DRAB03), DRM264, DRM266
Session: Winter Day
M.Q. Schonberg
Not offered 1994/95

DRAB21S The History of Theatre II: From the Elizabethan Theatre to the French Revolution
Telephone ID #: 04022153
A study of theatre from 1580 to 1789.

The course will concentrate on the study of Elizabethan and Jacobean staging practices, the theatre of the Baroque, Neo-classicism on the European continent, and the beginning of theatre in North America in the social and political context.

There will be lectures and tutorials. The principal text will be Oscar Brockett, *History of the Theatre*. Other readings will be announced.
Exclusion: (DRAB03), DRM264, DRM266
Session: Winter Day
H. Ohlendorf
Not offered 1994/95

DRAB24F Theatre in Canada
Telephone ID #: 04022433
An examination of the development of professional theatre in Canada from 1945 to the present.

Special attention will be paid to the development of the major theatrical festivals, the regional theatre movement, the rise of alternative theatre, and current theatrical trends. Consideration will be given to the work of specific actors, directors, and designers.

Reading materials will be drawn from several sources and selected dramatic texts will be used to illustrate theatrical developments.
Exclusion: (DRAB06), DRM268
Session: Winter Day
P. Sperdakos
Not offered 1994/95

DRAB26S Women in the Theatre
Telephone ID #: 04022653
The chronicle of theatre history from the perspective of women's experience, not only as practitioners, but also as spectators and subjects of theatre production.

Central to the course will be an inquiry into specific contributions made by women in all areas of theatre, but also an examination of the circumstances which led to the exclusion of women from mainstream theatre activity for many centuries, and of the factors which have often served to marginalize the tradition of female theatrical endeavour. Another focal concern of the course will be the impact of feminism on the theatre.
Session: Winter Day
P. Sperdakos
Not offered 1994/95

DRAB27F Science, Power and Hell
Telephone ID #: 04022733
An examination of the myth of Dr. Faustus, scientist, philosopher, physician, and black magician.

The story, which originated in 1587, has paralleled the development of modern science, as well as providing continued fascination for playwrights and audiences until today.

We will examine the popular *History of Dr. Johann Faustus* (1587), Christopher Marlowe's play *The Tragical History of Dr. Faustus* (1588), the puppet plays, J.W. Goethe's play *Faust* (1806-1832), and other works, including Vaclav Havel's play *Temptation*. Also examined will be some of the operatic works inspired by the Faust legend. The focus will be on the dramatic and literary transmutation of the legend of Faust, and on such questions as relation of faith to knowledge, knowledge to power, power to love. Throughout, close attention will be paid to the changing socio-political and intellectual circumstances, within which the various authors composed their versions of the story.
Exclusion: (HUMB43, LITB50)
Prerequisite: (LITA01), ENGA11 (ENGA01) or one full course in the history of theatre or one full course in literature.
Session: Winter Day
H. Ohlendorf
Not offered 1994/95

DRAC01Y Intermediate Workshop in Theatre Performance
Telephone ID #: 04030163
This course is designed to enable advanced students to concentrate on problems related to the staging of plays in studio situations.

A portion of the course is devoted to work with TV-video tape equipment. A minimum of three hours weekly in formal groups, and additional time in rehearsal, will be devoted to advanced exercises in acting skills, scene work, and work on productions.
Exclusion: DRM300
Prerequisite: DRAB01
Session: Winter Day
P. Sperdakos
Offered 1994/95

DRAC10Y Individual Studies in French Theatre and Drama in Translation

DRAC11Y Individual Studies in German Theatre and Drama in Translation

DRAC12Y Individual Studies in Italian Theatre and Drama in Translation

DRAC13Y Individual Studies in Russian Theatre and Drama in Translation

DRAC14Y Individual Studies in Spanish Theatre and Drama in Translation

Individuals will study under the supervision of members of the appropriate language discipline, and details of course content and evaluation will be arranged in consultation between the student, a member of the language discipline, and the Drama Supervisor.

In these courses the emphasis will be on the student's individual initiative, with the faculty member acting as tutor rather than lecturer.
Prerequisite: At least ten full-course equivalents. These must include DRAB20F, DRAB21S, DRAB22F, DRAB23S. These courses are intended for students specializing in Drama who are not sufficiently fluent in French/ German/ Italian/ Russian/ Spanish to read the works in the original language. Permission of Supervisor required.
Session: Winter Day
M.Q. Schonberg

DRAC20H Theatre Seminar
Telephone ID #: 04032043
A course combining the experiences of either the Stratford or London Seminars with aspects of the history of theatre.

Students will be expected to attend one of either the Stratford or London Seminar sessions. Before the last day of the previous spring term a brief statement about the project which will deal with a specific aspect of the history of the theatre must be signed by the supervisor. By early October a more developed statement must be submitted to the supervisor. A substantial paper on this topic will make up the final grade. Students will be expected to take on the financial responsibilities necessary for this course.
Prerequisites: DRAB01, DRAB20, DRAB21
Session: Summer Day, Winter Day
Co-ordinator: *A.J.G. Patenall*
Offered 1994/95

DRAD01Y Advanced Workshop: Performance and Directing
Telephone ID #: 04040163
Detailed textual analysis, in-depth scene study and elements of directing for the stage.

The course will include work on theatrical technique in areas such as period style, masks, improvisation stage fighting, etc. Students are expected to work on group projects, as well as on specific assignments according to their individual area of interest.
Exclusion: DRM400
Prerequisites: DRAB01, DRAC01
Session: Winter Day
M.Q. Schonberg
Offered 1994/95

Performance Course
The following performance course is also available to students on a non-credit basis and is open to all faculty and staff members. Entrance for all participants is by audition. Credit students should preregister but will not be admitted to the course unless granted permission of the instructor during the first week of classes.

DRAD10S Supervised Performance
The practical study of major theatrical productions.

Students will prepare for a public theatrical performance within the College. Students taking the course for credit will be required to work on design projects, work as directors, or as production stage managers, and will submit written work at the end of the course.
Prerequisites for credit students: DRAB01Y, DRAC01Y and permission of instructor.
M.Q. Schonberg
Offered 1994/95

DRAD20-24Y
DRAD25-28H Supervised Reading
An advanced reading course for drama students.

Students wishing to take this course should consult with M.Q. Schonberg, the Programme Supervisor, who will arrange in co-operation with the student a reading list and set the specific requirements for the course.

The emphasis in this course will be on advanced individual projects exploring specific areas of the history of theatre and/or dramatic literature. Proposals by students for specific projects will be assessed by the Supervisor in consultation with other members of faculty.
Prerequisite: One B-level full-course equivalent in Drama, and permission of instructor.
Exclusion: DRM390
Session: Winter Day
M.Q. Schonberg

Courses Not Offered in 1993-94

DRAB05Y	The Art and Nature of Comedy
DRAB07Y	Drama, Theatre, and Political Revolution
DRAB22F	The History of Theatre III: From the French Revolution to the First World War
DRAB23S	The History of Theatre IV: Theatre in the Twentieth Century
DRAB25F/S	Introduction to Asian Theatrical Traditions
DRAC02Y	The Great Directors of the Theatre Exclusion: DRM230 (DRAB02Y)

Economics

Assistant Chair: M. Krashinsky
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 (ECOA02Y or ECOA03Y); the initial B-level courses - Price Theory (ECOB03Y or ECOB04Y) and Macroeconomic Theory and Policy (ECOB07Y or ECOB08Y); at least one course that provides a different perspective either on contemporary economic theory, or on ways of organizing economic activity - Economic History (ECOB81Y, ECOB82Y, ECOC83Y), the Literature of Economics (ECOC25F, ECOC26S), Comparative Economic Systems (ECOB68S). 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, Economics and Mathematics, Economics and Quantitative Methods, Management and Economics, and Management and Economic Theory should take ECOA02Y (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 MATA28Y in combination with ECOA02Y, those specialist who are planning careers in Economics are encouraged to replace MATA28Y with MATA26Y (Calculus) and further math courses. Students who choose ECOA03Y (the non-mathematical version) may be able to enter those specialist programs once they have completed calculus. Economics Majors and Specialist in Economics and History and in Economics and Political Science do not require calculus, so that students may take ECOA03Y in their first years of those specialities.

Many courses 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 programmes have limited enrolment. Students admitted to the programmes are guaranteed access to enough courses to complete their programme. Remaining spaces in the courses are allocated on the basis of economics grades to non-programme students.

Admission to programme

1. **Direct admission from secondary school**
   Those admitted directly to the Management and Economics stream must maintain a GPA of 2.0 or higher after completing 8 credits to remain in an economics programme.
2. **Other students**
   The Supervisor of Studies makes decisions on programme admission only twice per year, in May and August, based on programme requests received by the Registrar, (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 Economics courses only after programme students have registered for these courses and that some courses may thus be unavailable, or available only in the summer. The Supervisor of Studies will not approve programme exceptions for non-programme students.

Specialist Programme in Economics
Supervisor: S. Horton
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/ECOA03Y and MATA28Y/MATA26Y. Students with 7-10 course credits will be considered on the basis of GPA including ECOA02Y/ECOA03Y and MATA28Y/MATA26Y and at least one of ECOB04Y 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 and in other areas as well should refer to the Economics course descriptions, 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 ECOA03Y
MATA28Y or MATB41F or (MATA27Y)
ECOB04Y
ECOB08Y
ECOB09Y or all 3 of STAB22F and STAB47S and STAC67F
ECOC25F or ECOC26S
ECOC11Y
ECOC66F or ECOB68S or ECOB81Y or ECOB82Y or ECOC83Y
ECOC13F and ECOC14S
ECOD50H
At least one full-course or two half-courses from the following introductory Humanities courses:
CLAA01Y, CLAA02Y, CLAB11F/S, CLAB32F/S, CLAB33F/S, DRAB03Y, DRAB04Y, DRAB06Y, DRAB07Y, ENGA11Y, ENGB07Y, ENGB08Y,

ENGB10Y, ENGB11Y, ENGB14Y, ENGB15Y, ENGB20F, ENGB21S, ENGB25F/S, ENGB34F/S, FARB66Y, FREB25Y, FREB36F, FREB37S, FREB82, GERC01, GRHB01Y, GRHB04, HISB04Y, HISB06Y, HISB07Y, HUMA01Y, HUMA03Y, HUMB02Y, HUMB05, HUMB42, ITAC22F, ITAC23S, ITAC31Y, ITAC45F/S, MUSA01Y, MUSA11S, MUSA12F/S, MUSB13F/S, MUSB14F/S, MUSB31F/S, MUSB32F/S, PHLB01F, PHLB03F, PHLB05F, SPAB14F, SPAB15S

Students may petition the Supervisor for permission to substitute other courses for some of those listed above.

Specialist Programme in Economics and History

Supervisor: S. Horton

NOTE: Registration in this Programme will be 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/ECOA03Y. Students with 7-10 course credits will be considered on the basis of GPA including ECOA02Y/ECOA03Y and at least one of ECOB03Y/ECOB04Y, ECOB07Y/ECOB08Y.

Requirements: Thirteen and one half full-course equivalents in a degree programme of at least twenty full-course equivalents of which six and one half are in Economics and seven are in History.

Required courses in Economics:
ECOA03Y or ECOA02Y
ECOB03Y or ECOB04Y
ECOB07Y or ECOB08Y
ECOB10F/S or ECOB09Y or STAB22F
Two full-course equivalents, at least one of which must be in economic history, from the following courses in economic history or the history of economic thought - ECOC25F, ECOC26S, ECOB81Y, ECOB82Y, ECOC83Y.
One additional full-course equivalent in economics.

Required courses in History:
HISA01Y and six other full-course equivalents in History, including Greek and Roman History (GRH).
Of these six, three must be upper-level courses (these are to be chosen from: HISC11Y - HISC99Y, GRHB24S - GRHC29Y, or HIS300 and 400 level courses on the St. George Campus). One full-course equivalent must deal with the period prior to 1815 (consult the list of pre-1815 courses in the calendar under History). One full-course equivalent must correspond generally in area and time period to one of the courses in economic history or the history of economic thought (CHOSEN IN CONSULTATION WITH PROGRAMME SUPERVISOR).

Specialist Programme in Economics and Mathematics

Supervisor: S. Horton

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 and MATA26Y. Students with 7-10 course credits will be considered on the basis of GPA including ECOA02Y, MATA26Y and at least one of ECOB04Y and ECOB08Y

This Programme is designed for students considering the possibility of graduate work in mathematical economic theory. Students must complete at least twelve and a half full-course equivalents in Economics, Mathematics, Statistics, Computer Science and Humanities. The specific requirements are as follows:
ECOA02Y
MATA26Y or (MATA27Y) or (MATA55Y)
MATA04Y
CSCA06F/S
ECOB04Y
ECOB08Y
(MATB41F and MATB42S and MATB43S) or MATB05Y
MATB31F (MATB44) and MATB32S (MATB49)
STAB22F and STAB47S
ECOC11Y
ECOC13F and ECOC14S
MATC51F
ECOD50H
One course from among the Humanities options listed for the Specialist Programme.

Specialist Programme in Economics and Political Science

Supervisor: S. Horton

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/ECOA03Y. Students with 7-10 course credits will be considered on the basis of GPA including ECOA02Y/ECOA03Y and at least one of ECOB03Y/ECOB04Y, ECOB07Y/ECOB08Y.

Six full-course equivalents are required in each of the two disciplines.* The specific courses required are listed below. In addition, mention is made of courses in other disciplines that complement the Specialist Programme.

Required courses in Economics:
ECOA03Y or ECOA02Y
ECOB03Y or ECOB04Y
ECOB07Y or ECOB08Y
ECOC31S, ECOC32F
ECOC25F or ECOC26S
ECOB35S or ECOC66F
ECOB09Y or all 3 of (STAB22F and STAB47S and STAC67S)

Required courses in Political Science:
POLA50Y
POLB70Y or POLC74Y
Four additional full-course equivalents from at least two of the five sub-fields listed below:

A Canadian Government, Public Administration - POLB53F/S, POLC52Y, POLC54F/S, POLC55Y
B Public Administration and Public Policy - POLB53F/S, POLB61F/S, POLB62F/S, POLC60F/S, POLC61F/S, POLC62F/S, POLC63S, POLC64F/S
C International Relations - POLB80Y, POLC82Y, POLC81S, POLC84Y
D Comparative Politics, Industrialized Countries - POLB86Y, POLB87Y, POLC85Y, POLC87Y, POLC88Y, POLC89Y,
E Comparative Politics, Developing Countries - POLB91Y, POLC95Y, POLC96Y, POLC98Y, POLD93S, and POLD94S

*The maximum number of Economics and Political Science full-course equivalents that can be counted for the four-year degree is sixteen.

Specialist Programme in Management and Economics

Supervisor: TBA

Registration in this Programme is limited. Selection will be based on all grades including the following prerequisite courses: MGTA01, ECOA02 or ECOA03, and MATA26 or MATA28. Students who have completed more than ten credits will not normally be considered for admission to the Specialist Programme. Please refer to Management.

Specialist Programme in Management and Economic Theory

Supervisor: TBA

Registration in this Programme is limited. Selection will be based on all grades including the following prerequisite courses: MGTA01, ECOA02 (though ECOA03 will be accepted in special cases), and MATA26 or MATA28. Students who have completed more than ten credits will not normally be considered for admission to this Programme. Please refer to Management.

Major Programme in Economics

Supervisor: TBA

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/ECOA03Y. Students with 7-10 course credits will be considered on the basis of GPA including ECOA02Y/ECOA03Y and at least one of ECOB03Y/ECOB04Y, ECOB07Y/ECOB08Y.

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

The Programme consists of six full-course equivalents in Economics, and one in Humanities. The Economics courses must include:
ECOA03Y or ECOA02Y
ECOB03Y or ECOB04Y
ECOB07Y or ECOB08Y
ECOB09Y or all 3 of (STAB22F and STAB47S and STAC67F)
and one full-course equivalent chosen from the C- level courses in Economics. The Humanities course must be selected from the options listed for the Specialist Programme. Where students are enrolled in Majors in both Economics and Management, the same course may be used to satisfy the distributional requirement, without counting against the regulation that only two courses used to satisfy programmes may overlap (see **Programme Requirements,** Regulations concerning Programmes of Study, item 2, earlier in the Calendar). It is recommended, but not required, that a student also include one course chosen from ECOC66F, ECOB68S, ECOB81Y, ECOB82Y, ECOC83Y.

ECOA02Y Introduction to Economics: A Mathematical Approach

Telephone ID #: 04310263

A study of economic theory and its application to contemporary Canadian economic problems. Problems discussed include: unemployment, inflation, pollution, poverty, monopoly. A mathematical approach to economic analysis is used in this course and it is

oriented principally towards students who plan to enter the various specialist programmes in Management and in Economics.
Exclusion: (ECOA01Y) ECOA03Y; ECO100
Prerequisite: OAC Calculus and one of OAC Algebra and Geometry or OAC Finite Mathematics.
Corequisite: MATA28Y or MATA26Y
Session: Winter Day

ECOA03Y Introduction to Economics
Telephone ID #: 04310363
A study of economic theory and its application to contemporary Canadian economic problems. Problems discussed will include: unemployment, inflation, pollution, poverty, monopoly.
Exclusion: (ECOA01Y) ECOA02Y; ECO100
Session: Summer Evening, Winter Day, Winter Evening

IDSB01Y Political Economy of International Development
Telephone ID #: 08120163
Introduces students to major development problems, the principal social, economic, and political factors that condition these, and to the impact on them of various development strategies pursued in a sample of Third-World countries.
NOTE: This course counts no more than half a full- course equivalent in Economics for any Economics programme.
Prerequisite: One full-course equivalent in either Economics or Political Science
Session: Winter Day

ECOB03Y Price Theory
Telephone ID #: 04320363
Intermediate level development of the principles of microeconomic theory. Initially the primary emphasis is on static partial equilibrium analysis, but general equilibrium analysis is developed later in the course. The topics covered are: consumer theory, theory of production, theory of the firm, theories of competition, monopoly and oligopoly, factor prices and welfare economics. Class size is limited to 80 per section.
Exclusion: ECOB04; ECO200, 206
Prerequisite: ECOA02Y or ECOA03Y (ECOA01Y)
Session: Summer Evening, Winter Day, Winter Evening

ECOB04Y Price Theory: A Mathematical Approach
Telephone ID #: 04320463
Intermediate level development of the principles of microeconomic theory. This course will cover the same topics as EOCB03Y, but will employ techniques involving calculus so as to make the theory clearer to students.
Exclusion: ECOB03; ECO206
Prerequisite: ECOA02Y; students who completed ECOA03Y may enrol in ECOB04Y if they simultaneously enrol in MATA28Y.
Session: Winter Day

ECOB07Y Macroeconomic Theory and Policy
Telephone ID #: 04320763
An exposition of macroeconomic theory with detailed discussion of the theory of output, employment and the price level, and of policy techniques for influencing and controlling 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: ECOB08Y; ECO202, 208
Prerequisite: ECOA02Y or ECOA03Y
Session: Winter Day, Winter Evening

ECOB08Y Macroeconomic Theory and Policy: A Mathematical Approach
Telephone ID #: 04320863
Intermediate level development of the principles of macroeconomic theory and policy. This course will cover the same topics as ECOB07Y, but will employ techniques involving calculus so as to make the theory clearer to students.
Exclusion: ECOB07Y; ECO208
Prerequisite: ECOA02Y; students who completed ECOA03Y may enrol in ECOB08Y if they simultaneously enrol in MATA28Y
Session: Winter Day

ECOB09Y Quantitative Methods in Economics
Telephone ID #: 04320963
An introduction to probability, statistics, and regression analysis as used in economic analysis. Topics to be covered include: probability, special probability distributions (normal, binomial), sampling theory, 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: ANTC35(ANTB43); ECOB10, ECOB11, ECOB12; GGRB31; PSYB07; SOCB06; STAB22; STAB47 and STAC67
Prerequisite: ECOA02 or ECOA03 (ECOA01)
Session: Winter Day and Winter Evening

ECOB10F Quantitative Methods in Management
Telephone ID#: 04321033
An introduction to statistics and regression analysis as used in economic analysis. The course will cover material similar to ECOB09 but in somewhat less depth. Topics to be covered include: summary statistics, special probability distributions (normal, binomial), confidence intervals, hypothesis testing (parametric), and simple and multiple regression. There will be a number of computer assignments.
Limited enrolment: 80 per section.
Exclusions: ANTC35 (ANTB43); (ECOB11), (ECOB12), ECOB09; GGRB31; PSYB07; SOCB06; STAB22
Prerequisites: ECOA02 or ECOA03 (ECOA01)
Session: Winter Day

GGRB27F Location and Spatial Development
Telephone ID #: 06922733
An examination of the use of competitive location theory in the analysis of regional economic growth and decline. Topics include Ricardian rents and spatial equilibrium, trade flows and spatial price equilibrium, geographical market areas and spatial pricing policies, the location of a firm with mobile resources, industry location in equilibrium, trade theory and regional specialization, and the regional growth theories of Borts-Stein and Myrdal. Two hours of lectures and one tutorial hour per week.
(N.B. This course may count as a half-course in Economics for all Economics and Management Programmes.)
Prerequisite: ECOA02 or ECOA03 (ECOA01)
Session: Winter Day
J. Miron

ECOB35S Public Decision Making
Telephone ID #: 04323553
A study of decision making by governments from an economic perspective. The course begins by examining various rationales for public involvement in the economy and then examines a number of theories explaining the way decisions are actually made in the public sector. The course concludes with a number of case studies of Canadian policy making.
Limited enrolment: 60.
Prerequisite: ECOA02 or ECOA03 (ECOA01)
Session: Winter Day
M. Krashinsky

ECOB68S Comparative Economic Systems
Telephone ID #: 04326853
An introduction to alternative ways of organizing economic activities - allocating resources, distributing income, accumulating capital. Part of the time will be spent examining these alternatives from a theoretical perspective; the rest will be devoted to studies of particular economies, especially Canada, the Soviet Union and Yugoslavia.
Exclusion: ECO330
Prerequisite: ECOA02 or ECOA03 (ECOA01)
Corequisite: ECOB03
Session: Winter Day

ECOB82Y European Economic History
Telephone ID #: 04328263
A study of the emergence of industrial society in Europe since the Middle Ages with some emphasis on the comparative experience of Britain and other European countries and the growth of the nineteenth century world economy. Particular attention is paid to technical change, the expansion of markets, population growth, the economic effects of public policy, and consequent changes in income levels and the structure of the economy.
Exclusion: ECO101, 201, 452
Prerequisite: ECOA02 or ECOA03 (ECOA01)
Session: Winter Day

ECOC11Y Econometrics
Telephone ID #: 04331163
A formal development of multiple regression analysis using matrix algebra. 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: ECO327
Prerequisite: ECOB03 or ECOB04, ECOB07 or ECOB08, ECOB12, MATA04Y or MATB41 or permission of instructor
Session: Winter Day

ECOC13F Advanced Microeconomic Theory
Telephone ID #: 04331333
An upper level extension of the ideas studied in ECOB03. The course offers a more sophisticated treatment of such topics as equilibrium, welfare economics, theories of the firm, linear programming, income distribution, risk and uncertainty.
Exclusion: ECO326
Prerequisite: ECOB03 or ECOB04; ECOB11; MATA28 or MATA26 (MATA27) or (MATA55)
Session: Winter Day

ECOC14S Advanced Macroeconomic Theory
Telephone ID #: 04331453
Post-Keynesian developments in macroeconomic (including monetary) theory; empirical testing of Keynesian and post-Keynesian macroeconomic theories, and the uses of macroeconometric models.
Exclusion: ECO325
Prerequisite: ECOB03 or ECOB04; ECOB07 or ECOB08; ECOB09 (ECOB11); MATA28 or MATA26 (MATA27) or (MATA55)
Session: Winter Day

ECOC25F History of Economics I: Adam Smith to Karl Marx
Telephone ID #: 04332533
A study of the literature of classical Political Economy, especially the work of Adam Smith, Malthus, Ricardo, J.S. Mill, and Marx.
Exclusion: ECO322
Prerequisite: ECOB03 or ECOB04 or ECOB07 or ECOB08
Corequisite: ECOB03 or ECOB04 or ECOB07 or ECOB08 (whichever is not used to satisfy the prerequisite).
Session: Winter Day

ECOC31S Economics of the Public Sector: Taxation
Telephone ID #: 04333153
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: ECO236
Prerequisite: ECOB03 or ECOB04
Session: Winter Evening
TBA

ECOC32F Economics of the Public Sector: Expenditures
Telephone ID #: 04333233
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: ECO236
Prerequisite: ECOB03 or ECOB04
Session: Winter Evening

ECOC37S Law and Economics
Telephone ID #: 04333753
A study of laws and legal institutions from an economic perspective. Includes the development of a positive theory of the law suggesting that laws frequently evolve so as to maximize economic efficiency. The efficiency of various legal principles is examined. Topics covered are drawn from: externalities, property rights, environmental law, contracts, torts, product liability and consumer protection, criminal law, and procedure. Limited enrolment: 60.
Exclusion: ECO320
Prerequisite: ECOB03 or ECOB04 (ECOB03 or ECOB04 will be accepted as a corequisite when ECOC37 is taught in the second term of the winter session)
Session: Winter Evening

ECOC41F Industrial Organization
Telephone ID #: 04334133
The economics of the firm in a market environment. The aim is to study business behaviour and market performance as influenced by concentration, entry barriers, product differentiation and diversification.
Limited enrolment: 60.
Exclusion: ECO310
Prerequisite: ECOB03 or ECOB04
Session: Winter Evening

ECOC48F Monetary Economics
Telephone ID #: 04334833
This course examines monetary theory and institutions focusing on the relationship among money, prices and economic activity. Topics include: money supply definitions and relevance, a detailed examination of the demand for and supply of money, the term structure of interest rates, targets and instruments of monetary policy, the use of rules versus discretionary monetary policy.
Limited enrolment: 60
Exclusion: ECO348H
Prerequisite: ECOB07
Session: Winter Day

ECOC51F Labour Economics I
Telephone ID #: 04335133
Applications of the tools of microeconomics to various labour market issues. The topics covered will include: fertility and family formation; labour supply; labour demand; equilibrium in competitive and non-competitive markets; non market approaches to the labour market; unemployment. Policy applications will include: income maintenance programmes; minimum wages; unemployment insurance benefits; poverty.
Limited enrolment: 60
Exclusion: ECO239, 339
Prerequisite: ECOB03
Corequisite: ECOB09Y/ECOB10F/S or permission of instructor
Session: Winter Day

ECOC52S Labour Economics II
Telephone ID #: 04335253
A continuation of ECOC51S. Topics covered will include: unions; wage structures; 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
Prerequisites: ECOC51 or permission of instructor. Recommended preparation ECOB09 (ECOB11/B12), ECOB10 or equivalent.
Session: Winter Day

MGTC54Y Industrial Relations
Telephone ID #: 33535463
A study of industrial relations in the Canadian setting. Topics include: industrial relations theory and systems; history, philosophy and structure of unionism, labour law, and a collective bargaining simulation exercise.
Limited enrolment: 80. This course will count as a full course in Economics for Economics Programmes.
Exclusion: (JCEC54)
Prerequisite: Completion of at least ten full-course equivalents including ECOA01 or ECOA02.
Session: Winter Evening

ECOC61S 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 flexible exchange rates; the forward exchange market. The international monetary system: fixed "versus" flexible exchange rates; international capital movements, eurocurrency markets and their implications for monetary policy. Limited enrolment: 60.
Exclusion: ECO328
Prerequisite: ECOB07 or ECOB08
Session: Winter Day

ECOC62F 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, nontariff barriers); the theory of customs unions. Limited enrolment: 60.
Exclusion: ECO328
Prerequisite: ECOB03 or ECOB04
Session: Winter Day

ECOC66F Economic Development
Telephone ID #: 04336633
An introduction to the processes of growth and development in less developed countries and regions. Topics include the role of international trade and investment in developing countries, the problems of population growth and unemployment, inequalities in income distribution, the roles of agriculture and industry.
Limited enrolment: 60.
Exclusion: ECO324
Prerequisite: ECOB03 or ECOB04
TBA
Session: Winter Day

ECOC67S 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 population growth, international trade and investment, public finance, education, and technology. Limited enrolment: 60.
Exclusion: ECO324
Prerequisite: ECOC66
Session: Winter Day

ECOD11F and ECOD12S 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 courses 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.
Prerequisite: Permission of instructor
Session: Summer Day, Summer Evening, Winter Day, Winter Evening

ECOD50H Workshop in Economic Research
Telephone ID #: 04345043
This course discusses with students 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: ECOB04 and ECOB08 (or ECOB03 and ECOB07 and first year calculus); ECOB12. This course should be taken among the last 5 courses of a twenty course degree.
Session: Winter Day

Courses Not Offered in 1993-94

ECOB81Y North American Economic History
Exclusion: ECO221, 222, ECO305
Prerequisite: ECOA03

ECOC26S History of Economics II: Origins of Modern Economic Theory
Exclusion: ECO322
Prerequisite: ECOB03 or ECOB04 or ECOB07 or ECOB08
Corequisite: ECOB03 or ECOB04 or ECOB07 or ECOB08 (whichever is not used to satisfy the prerequisite

ECOC83Y Economic History 1914-1971
Exclusion: (ECOB83); ECO342
Prerequisite: ECOA03 and 3 B-level courses in Economics or History.

English

Discipline Representative: J. Kay (287-7157)
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.

English B01Y and B02Y 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 beginning 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 enrolment and may involve the presentation of seminars.

Students are advised to consult the prerequisites for C and D-level courses when planning their individual programmes, 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: J. Kay (287-7157)
Ten full-course equivalents in English and two in other disciplines in the Division of Humanities are required. They should be selected as follows.

1 ENGA11Y Reading Literature: The 20th Century
2 ENGB01Y Critical Thinking
3 ENGB02Y English Literature: Historical Survey
4 ENGD01Y English Literary Criticism
5 Five additional full-course equivalents in English at the A, B, or C-level, including:
   a) two full-course equivalents in periods before 1800, one of which must be at the C-level (see list A)
   b) two full-course equivalents in periods after 1800, one of which must be at the C-level (see list B)
6 One further full-course equivalent in English at the D-level
7 Two full-course equivalents in other Humanities disciplines.
The following are particularly recommended:

CLAA02Y Greek and Roman Mythology
CLAB11F/S The Classical Element in English
CLAC07F/S Ancient Drama: Comedy
CLAC08F/S Ancient Drama: Tragedy
CLAC09F/S Ancient Epic: The Oral Tradition
CLAC10F/S Ancient Epic: The Literary Tradition
HISB02Y Britain from the Eighteenth Century to the Present
HISC23Y Tudor and Stuart England (Prerequisite: One B-level history course)
HUMA01Y Prologue
HUMA03Y Prologue II: East Asia and the Middle East
LINA01Y General Linguistics
PHLB03F/S Philosophy and Art
PHLB04F/S Philosophy of Literature
WSTA01Y Introduction to Women's Studies

Alternatively, students are encouraged to follow a sequence of language courses in fulfillment of this requirement.

Major Programme in English
Supervisor: J. Kay (287-7157)
Seven full-course equivalents in English are required. They should be selected as follows:

1 ENGA11Y Reading Literature: The 20th Century
2 ENGB01Y Critical Thinking
3 ENGB02Y English Literature: Historical Survey
4 Three additional full-course equivalents in English at the B, or C-level, one of which must be at the C-level. These three courses must include:
   a) one full-course equivalent in periods before 1800 (See List A)
   b) one full-course equivalent in periods after 1800 (See List B)
5 One full-course equivalent in English at the D-level

LIST A:
Pre-1800 courses:

ENGB10Y Shakespeare
ENGC30Y Chaucer
ENGC32Y Prose and Poetry of the English Renaissance 1500-1660
ENGC33Y English Drama to 1642
ENGC36F/S English Literature of the Early 18th Century
ENGC37F/S English Literature of the Late 18th Century
ENGC38Y Fiction before 1832

LIST B:
Post-1800 courses:

ENGB07Y Canadian Literature in English: an Introduction
ENGB08Y American Literature: an Introduction
ENGB20F/S Contemporary Literature in English: Africa and the West Indies
ENGB21F/S Contemporary Literature in English: Australia and India
ENGB25F/S The Canadian Short Story
ENGB26F/S Canadian Drama
ENGB34F/S The Short Story
ENGC02Y Canadian Fiction in English
ENGC12Y Major American Authors
ENGC42Y The Romantics
ENGC43Y Victorian Poetry
ENGC46Y Fiction 1832-1900
ENGC50Y Modern Drama
ENGC51Y Twentieth-Century Poetry
ENGC52Y Fiction 1900-1960
ENGC53F/S British Fiction Since 1960
ENGC54F/S American Fiction Since 1960
ENGC55F/S Drama Since 1960

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.

What is involved in the activities of reading and writing? What is the relationship between what we read and how we make sense of ourselves? How does literature in the twentieth-century challenge and shape our notions of truth and perceptions of reality? These are some of the questions the course will explore. The course will include works by men and women of different cultural backgrounds and nationalities.

All sections of the course will require a selection of written assignments and a final examination.

Note: This course is designed to accommodate any student with an interest in reading at the university level. It is also the prerequisite to B01Y, the required introductory course for majors and specialists in the English Programme.
Exclusion: (ENGA01,A08), ENG102
Session: Winter Day, Winter Evening
Course Co-ordinator: *K. Theil*
Offered 1994/95 and 1995/96

ENGB01Y Critical Thinking and Writing
Telephone ID #: 05520163
Through the reading of poetry, fiction and essays students will learn how to discuss works of literature, and how to present their views accurately and cogently in writing.

This course is a required course for all Major and Specialists in English.

In the first term there will be a strong emphasis on vocabulary development and grammatical accuracy through various written exercises. The development of aesthetic responses to literary texts will also be an important aim of this course.

The art of rewriting will be encouraged to develop competence, and students who have not maintained a grade of C in the first term will be counselled to drop the course.

The second term will focus on a major work of literature. In addition to expanding the writing skills learned in the first term, we will explore a variety of critical approaches to the selected text.
Exclusion: (ENGA01Y)
Prerequisite: ENGA11Y
Session: Winter Day
Course Co-ordinator: *W.J. Howard*
Offered 1994/95 and 1995/96

ENGB02Y English Literature: Historical Survey
Telephone ID #: 05520263
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 ENGB01Y.

This course provides a general introduction to the main periods of English literary history -- the Medieval, Renaissance, Restoration, Eighteenth-Century, Romantic, Victorian, and Modern periods. Reading will be extensive, involving brief selections from approximately fifty writers. The primary text is *The Norton Anthology of English Literature* (Fifth Edition), Vols. 1 and 2; further texts will be announced.

Note: This is exclusively a lecture and examination course. Students are advised to combine this course with English B01Y in order to include group discussion, detailed textual study, and practice in essay writing in their study of English.
Exclusion: (ENGA02)
Session: Winter Day
A. Patenall, M. Cuddy-Keane
Offered 1994/95 and 1995/96

ENGB07Y Canadian Literature in English: An Introduction
Telephone ID #: 05520763
A study of a wide range of Canadian literature, including works by fiction writers, poets, playwrights, and critics, such as Callaghan, MacLennan, Laurence, Grove, Davies, Lampman, D.C. Scott, Klein, Pratt, Birney, Avison, Atwood, and Frye.

This study of Canadian literature in English will be historical, following the development of writing in Canada from early times to the present, though most attention will be paid to literature of the twentieth century. Close and critical reading of individual works will also be emphasized.
M. Gadpaille
Session: Winter Day

ENGB10Y 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 H525A.
Exclusion: ENG220
Session: Winter Day
A. Patenall
Offered 1994/95

ENGB11Y Varieties of Drama
Telephone ID #: 05521163
A study of drama from ancient Greece to the present day.

The course introduces students to a wide range of drama through the study of at least twelve plays, including, Sophocles, *Oedipus the King*; Aristophanes, *Lysistrata*; and Marlowe, *Dr. Faustus*. Other plays will be selected from the work of modern dramatists, including Beckett, O'Neill, Pinter, Shaw, and at least one Canadian writer.

The course will encourage discussion of genres such as comedy and tragedy, methods such as allegory, expressionism and realism, and the theatrical production of texts.
Exclusion: DRM100, ENG222
Session: Winter Day
A. Thomas
Not offered 1994/95
Offered 1995/96

ENGB14Y Varieties of Fiction
Telephone ID #: 05521463
A study of fictional strategies and techniques, drawing on a wide range of examples from early periods of narrative to the present day.

About 16 works will be studied, including short stories, novels, and novellas. Emphasis will be placed on the forms and conventions of fiction rather than on chronological development and historical background. The course will consider such aspects as the significance of beginnings and endings, the role of the narrator, and the relationship between realism and fantasy. Texts to be announced.
Session: Summer Evening
TBA

ENGB20F Contemporary Literature in English: Africa and the West Indies
Telephone ID #: 05522033
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, Naipaul, and others.
W.J. Howard
Session: Winter Day

ENGB21S Contemporary Literature in English: Australia and India
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. Rao, Jhabvala, Narayan, Malgonkar, Keneally, Stow, White.
Session: Winter Day
W.J. Howard

ENGB50Y Women and Literary Study
Telephone ID #: 05525063
A discussion of the work of women writers, and the history of women as students, teachers and writers of literature.

Through a variety of texts (fiction, poetry, drama, criticism) we will explore issues such as "women's writing," and women's relationship to language and a literary tradition that has historically been male dominated. Selections from: Kate Chopin, Elizabeth Gaskell, Toni Morrison, Alice Munro, Sylvia Plath, Christina Rossetti, Mary Shelley, Olive Schreiner, Amy Tan, Mary Wollstonecraft, Alice Walker, Virginia Woolf.
Exclusion: ENG258
Session: Winter Day
J. Matus

ENGC12Y Major American Authors
Telephone ID #: 05531263
A close study of works by at least four and no more than six authors. Selected authors will be drawn from the following list: Cooper, Hawthorne, Twain, Edith Wharton, Theodore Dreiser, Toni Morrison, Sylvia Plath, and Sam Shepard. Further information will be available in Room H505A.
Exclusion: (ENGB24)
Prerequisite: One full-course equivalent in English
Session: Winter Day, Summer Evening
G. Leonard

ENGC32Y Prose and Poetry of the English Renaissance, 1500-1660
Telephone ID #: 05533263
The non-dramatic literature of the English Renaissance from the rise of English humanism to the Interregnum.

A study of English Renaissance literature beginning with sixteenth-century humanism in continental writers and More, responses to the courtly love tradition in the poetry of Wyatt, Surrey, Sidney, and Shakespeare, and Spenser's development of the epic. The second half of the course concerns the later Renaissance and the works of Donne, Milton, Jonson, and their contemporaries.
Exclusion: (ENGB09)
Prerequisite: (ENGA01, A02) ENGB01, B02
Session: Winter Day
W.J. Howard

ENGC38Y Fiction before 1832
Telephone ID #: 05533863
At least twelve works, including one or more by Richardson, Fielding, Sterne, Austen and Scott.

This is an historical course on the development of the novel from the early eighteenth century to the Romantic period. It includes the best comic novels in the language; serious moral, social, and psychological studies; and works that reveal and comment on some of the literary fads of the time- fashions for terror, pathos, and the nostalgic representation of the past. Works to be studied include Defoe, *Moll Flanders*; Richardson, *Pamela*; Fielding, *Tom Jones*; Sterne, *Tristram Shandy*; Smollett, *Humphrey Clinker*; Austen, *Emma*. Not for people who don't really like reading.
Exclusion: (ENGB17)
Prerequisite: (ENGA01, ENGA02), ENGB01, ENGB02; or ENGB14
Session: Winter Day
J. Kay

ENGC43Y Victorian Poetry
The poetry of Tennyson, Browning, Arnold, and selections from other poets, such as Elizabeth Barrett Browning, D.G. Rossetti, Christina Rossetti, Meredith, Swinburne, Hardy.

The Victorian period was a time when poetry was broadly accessible and widely-read, and poets were particularly concerned about their public role in society. This course concentrates upon poems of the mid-Victorian period and the poets' responses to such crucial issues as the impact of evolutionary theory and the changing role of women. A selection of poems from the later period reveals increasingly darker ironies, leading to the introverted and sensual poetry of Aestheticism and Decadence.

The course focuses both on poetic style and on nineteenth-century thought. Texts will include: *The Norton Anthology of English Literature*, (Fifth edition), Vol. 2; Tennyson, *In Memoriam* (Norton); Elizabeth Barrett Browning, *Aurora Leigh* (The Women's Press).
Exclusion: (ENGB06)
Prerequisites: (ENGA01, ENGA02) ENGB01, ENGB02 or ENGB15
Session: Winter Evening
M. Cuddy-Keane

ENGC52Y Fiction 1900-1960
Telephone ID #: 05535263
A study of at least twelve works, chosen from novels, novellas, and collections of short stories.

The early twentieth century was a period of extraordinary creativity and innovation in fiction, as writers broke away from the conventions of the Victorian novel to define the new reality of the "modern" world. The focus of this course will be the development of new kinds of narrative, in part to study the nature of art-making, but in part also to consider the philosophical, psychological, and indeed political implications of the way we tell stories. Works studied will include: James, *The Spoils of Poynton*; Conrad, *Lord Jim*; Joyce, *A Portrait of the Artist as a Young Man*; Dorothy Richardson, *Pointed Roofs*; Mansfield, *Selected Stories*; Woolf, *To the Lighthouse*; Forster, *A Passage to India*; Faulkner, *Absalom, Absalom!*. Students are urged to use editions listed in the bookstore, and to do some reading in advance.
Prerequisite: (ENGA01, ENGA02) ENGB01, B02; or ENGB14
Session: Winter Day
M. Cuddy-Keane

ENGC53S British Fiction Since 1960
Telephone ID #: 05535353
Representative works by major British fiction writers of the past quarter century.

Approximately eight works (novels, short story collections) will be studied, including Edna O'Brien, *The Love Object*; Fowles, *The French Lieutenant's Woman*; Drabble, *The Waterfall*; Barnes, *Flaubert's Parrot*.
Exclusion: (ENGB35)
Prerequisite: (ENGA01, ENGA02) ENGB01, B02; or ENGB14
Session: Winter Day
A. Thomas

ENGC54F American Fiction Since 1960
Telephone ID #: 05535433
A study of the range and variety of recent fiction writing in the United States.

Approximately eight novels or short story collections by writers such as Barth, Barthelme, Beattie, Bellow, Cheever, Coover, Didion, Dubus, Elkin, Gass, Gardner, Hawkes, Mailer, Nabokov, Oates, Percy, Pynchon, Updike, Roth, Theroux, Welty, Woiwode.
Exclusion: (ENGB36)
Prerequisite: (ENGA01, ENGA02) ENGB01, B02; or ENGB14
Session: Winter Day
R. Brown

ENGD01Y English Literary Criticism
Telephone ID #: 05540163
A study of the central issues of literary theory and criticism, their importance in English literary history, and their relationship to European thought.

What are the major issues and movements in literary theory? How have the questions critics have asked changed over time? The course aims at discussing the assumptions about literature and writing that are reflected in **any** critical position. Readings will be selected to acquaint students with both current critical debates and the history of theory and criticism.
Exclusion: (ENGB95), ENG270
Prerequisite: (ENGA01, ENGA02), ENGB01, ENGB02, and two further full-course equivalents in English.
Session: Winter Day
J. Matus
Offered 1994/95 and 1995/96

ENGD16S Problems in Later Shakespeare
Telephone ID #: 05541653
Textual and editorial, as well as aesthetic and dramatic problems in the later works of Shakespeare.

Primary texts are *Pericles, Cymbeline, A Winter's Tale* and *The Tempest*. The new Arden edition of each is preferred. Each student will develop a topic during the term which will be reported on in seminar, before being presented as a written paper at the end of the term. Limited enrolment: 20
Exclusion: (ENGC60)
Prerequisite: (ENGA01, ENGA02) ENGB01, ENGB02, and two further full-course equivalents in English; or ENGB10; or ENGC33 (ENGB12)
Session: Winter Day
A.J.G. Patenall

ENGD39F George Bernard Shaw
Telephone ID #: 05543933
A study of the range of Shaw's dramatic works.

Emphasis will be on the comedies. Plays to be read include Shaw's *Arms and the Man, Heartbreak House* and *Man and Superman*. Some plays by contemporary writers who share the Shavian comic sensibility will also be read, including at least one by Tom Stoppard. Assignments will include a seminar report.
Limited enrolment: 20
Prerequisites: ENGB01, ENGB02 (ENGA01, ENGA02) and two further full-course equivalents in English; or ENGC50; or ENGC55.
Session: Winter Day
A. Thomas

ENGD42S James Joyce
Telephone ID #: 05544253
Richard Ellmann summarized the importance of James Joyce when he said "we are still learning to be his contemporaries." Our primary texts will include *Dubliners, A Portrait of the Artist as a Young Man*, and *Ulysses*. Depending on time available, we will also look at excerpts from *Finnegan's Wake*, as well as *Exiles, Chamber Music*, and selected letters by Joyce. Of special interest to us in our readings of Joyce will be his complex and ambivalent depictions of such presumably "simple" and "self-evident" structures as identity, gender, power, pleasure, sexuality, history, capitalism, popular culture, imperialism/colonialism, advertising, and what has generally been labelled "commodity culture" in the twentieth century. Always we will be alert to how Joyce outlined, more than fifty years ago, the modern world we struggle to understand today. Students will be expected to present oral reports based on essays that have particular relevance to a given day's discussion. There will also be frequent quizzes, a midterm test, and a final paper of 3000 words.
Limited enrolment: 20.
Prerequisites: (ENGA01, ENGA02) ENGB01, ENGB02, and two further full-course equivalents in English; or ENGC50.
Session: Winter Day
G. Leonard

ENGD46F Fitzgerald and Hemingway
Telephone ID #: 05544633
A study of some patterns in American literature between the wars, as they emerge in the work of Fitzgerald and Hemingway.

Texts will include *This Side of Paradise, Babylon Revisited and Other Stories; Tender is the Night; In Our Time; The Sun Also Rises; A Farewell to Arms*; some letters and critical writing.
Limited Enrolment: 20
Exclusion: (ENGC93)
Prerequisites: (ENGA01, ENGA02) ENGB01, ENGB02, and two further full-course equivalents in English; or ENGC12; or ENGC52
Session: Winter Day
K. Theil

ENGD49S Samuel Beckett
Telephone ID #: 05544953
A study of Beckett's career as innovative playwright and experimental writer of prose fiction.

The course will explore Beckett's role as one of the creators of "Theatre of the Absurd" and look at some of his challenging experiments in prose fiction. Texts will include: *Waiting for Godot; Endgame; The Collected Shorter Plays of Samuel Beckett;* some short fiction and a novel.
Limited enrolment: 20.
Prerequisite: (ENGA01, ENGA02) ENGB01, ENGB02 and two further full-course equivalents in English; or ENGC50; or ENGC55
Session: Winter Day
K. Theil

ENGD74S The Twentieth-Century Novella
Telephone ID #: 05547453
A study of the medium-length fiction of the twentieth century, with emphasis on the novella as a genre, and close reading of texts by British, American, and Canadian authors.

Readings will include novellas by Conrad, James, Wharton, Faulkner, Katherine Anne Porter, Malcolm Lowry and Mavis Gallant. Main texts: *The Norton Introduction to the Short Novel* (2nd. ed); *On Middle Ground* (Methuen).
Limited enrolment: 20
Prerequisites: (ENGA01, ENGA02) ENGB01, ENGB02, and two further full-course equivalents in English; or any two

of: (ENGA08), ENGA11, ENGB14, ENGB34, ENGC02.
Session: Winter Evening
M. Gadpaille

ENGD78F The Open Road in North American Fiction
Telephone ID #: 05547833
An investigation of the myth of the open road in North American fiction, with an emphasis on contemporary writing.

The course will focus on eight books, examining them both as independent works and as part of an ongoing tradition. Texts will include: Twain, *Huckleberry Finn*; Kerouac, *On the Road;* Jim Harris, *A Good Day to Die*; Kroetsch, *The Studhorse Man;* Bobbie Ann Mason *In Country*. Further texts to be assigned.
Limited Enrolment: 20
Prerequisites: (ENGA01, ENGA02), ENGB01, ENGB02, and two further full-course equivalents in English; or two of (ENGA08) ENGA11, ENGB14, ENGC54 (ENGB36); or ENGC02 (ENGB27); or ENGC12 (ENGB24)
Session: Winter Day
R. Brown

ENGD85F Early Canadian Women Writers
Telephone ID #: 05548533
A study of neglected prose and prose fiction by women in Canada in the nineteenth and very early twentieth centuries. Reading will include works by a few better-known authors--Moodie, Brooke and Traill--but will concentrate on three or four of the following less celebrated works: Leprohon: *Antoinette de Mirecourt;* McClung: *Purple Springs;* Duncan: *A Daughter of Today;* Johnson: *Legends of Vancouver;* Beckwith: *St. Ursula's Convent;* Fytche: *Kerchiefs to Hunt Souls*. A selection of short stories, sketches and critical readings will help in forming a picture of the female reader as well as the woman writer of the pre-modern era in Canada.
Limited enrolment: 20
Prerequisites: (ENGA01, ENGA02) ENGB01, ENGB02, and two further full-course equivalents in English; or any two of ENGC02, ENGB07, ENGB50, WSTA01.
Session: Winter Evening
M. Gadpaille

ENGD98Y Senior Essay
Telephone ID #: 05549863
A scholarly project, chosen by the student and supervised by one faculty member. Approval by the faculty in English must normally be obtained by the student before the end of the previous spring term.

The student writes a substantial essay on a literary subject under the supervision of a member of staff. It is the responsibility of the student to locate a supervisor; advice on this matter may be sought from the Discipline Representative. The following deadlines should be observed: by the last day of the previous spring term a brief statement of the area of the project, signed by the supervisor, is to be sent to Professor J. Kay. By November 15th a more specific statement of the project is to be sent to Professor Kay, including the exact title of the proposed study and a short description of its subject and method. After the topic has been approved by the discipline, a second reader will be appointed.
Exclusion: (ENGC14), ENG490
Prerequisite: Open only to students completing the last five courses for the four-year degree, and who have at least three full-course equivalents in English, at least one at the C-level
Session: Winter Day

Courses Not Offered in 1993/94

ENGB08Y American Literature
ENGB25F/S Canadian Short Story
Exclusion: ENG215
ENGB26F/S Canadian Drama
ENGB27Y Literature and Imperialism
ENGB34F/S The Short Story
ENGB60Y Creative Writing
Exclusion: (HUMB80) (LITB60Y)
Prerequisite: Permission of instructor
ENGC02Y Canadian Fiction in English
Exclusion: (ENGB27)
Prerequisite: One full-course equivalent in English
ENGC30Y Chaucer
Prerequisite: (ENGA01, A02) ENGB01, B02
ENGC33Y English Drama to 1642
Exclusion: (ENGB12)
Prerequisite: (ENGA01, ENGA02) ENGB01, ENGB02; or ENGB11
ENGC36F/S English Literature of the Early Eighteenth Century
Prerequisite: (ENGA01, ENGA02) ENGB01, ENGB02; or ENGB15
ENGC37F/S English Literature of the Later Eighteenth Century
Prerequisite: (ENGA01, ENGA02) ENGB01, ENGB02; or ENGB15
ENGC42Y The Romantics
Exclusion: (ENGB05)
Prerequisite: (ENGA01, ENGA02) ENGB01, ENGB02; or ENGB15
ENGC46Y Fiction 1832-1900
Prerequisite: (ENGA01, ENGA02) ENGB01, ENGB02; or ENGB14; or HISB02
ENGC50Y Modern Drama
Prerequisite: (ENGA01, A02) ENGB01, B02 or ENGB11
ENGC51Y Modern Poetry
Prerequisite: (ENGA01, A02) ENGB01, B02 or ENGB15
ENGC55F/S Drama Since 1960
Prerequisite: (ENGA01, A02) ENGB01, B02; or ENGB11; or ENGB26F or one DRA course
ENGC64F
ENGC65S
ENGC66Y Independent Studies: Creative Writing
Exclusions:
for ENGC64: (LITD64)
for ENGC65: (LITD65)
for ENGC66: (LITD66)
Prerequisite: ENGB60 (LITB60) and permission of instructor.

Environmental Science

Discipline Representative: K. Howard (287-7233)
The study of the environment and its evolution is of extreme importance to our continued habitation of the planet earth. To understand this problem requires significant background spanning many scientific areas of study. Problems such as diminishing and polluted water supplies, acid rain, lake and coastal erosion, disposal of household, industrial and radio-active wastes are related to an insufficient understanding of near-surface geology and geological processes. These sources of pollution act both on the human population and all other living species on the earth, and thus require careful study of both the biology of the particular contaminant and the effect on all ecological systems feeling either a primary or secondary impact. Thus the Environmental Science Discipline involves Earth Sciences, Climatology, and Environmental Biology. In addition, close connections are maintained with other relevant disciplines, such as Chemistry.

Two Specialist Programmes are offered in addition to a Major Programme. The Environmental Science Programme provides a balanced emphasis on both the earth and biological science aspects of environmental science. This reflects the strong interdisciplinary requirements of an integrated approach to the study of the environment where not only must there be a strong understanding of the causes or sources of the deterioration of the earth's environment, but a strong understanding of the actual modes of impact on the biological world, both at the molecular and cell levels and at the ecological system level.

The Environmental Earth Science Programme provides a stronger emphasis on the study of earth materials at or near the surface, and the processes -- chemical, sedimentary, hydrogeological -- that shape and determine the environment as we experience it today. While this programme emphasizes the earth science aspects of the problem, it maintains a strongly interdisciplinary nature.

A Programme in Environmental Chemistry is also offered for those students interested in the mechanisms that lead from our modern way of life to the introduction of pollutants into the atmosphere and water system of the earth.

Please refer to the Physical Sciences section of the Calendar for the following programmes:

Specialist Programme in Environmental Science

Specialist Programme in Environmental Earth Science

Specialist Co-op Programme in Environmental Science

Major Programme in Environmental Science

Note: Commencing September 1993, Geology and Physical Geography programmes and courses have been structured to form the new Environmental Science Discipline and new Environmental Science Programmes.

EESA01F Introduction to Environmental Science
Telephone ID#: 36310133
An introductory course which integrates subject matter and concepts from diverse

scientific disciplines to provide a coherent framework for analyses of environmental issues, environmental management and policy development. The course examines changes in scientific and societal attitudes to the environment and the developments which have led to the current critical state of the environment. The processes of human impact on ecosystemic functioning are examined and the environmental sustainability of societal patterns is critically analysed in local, regional and global contexts. Critical current issues such as the nature of evidence of environmental degradation and the compatibility of scientific method and regulatory responsibility will be examined within the framework of specific case histories.
Two hour lecture, two hour laboratory or tutorials; local field trips.
Session: Winter Day
R. Bryan/T. Price

EESA02S Introduction to Physical Geography
Telephone ID#: 36310253
A consideration of the flow of both energy and mass through natural systems is used to explain system characteristics, from the shape of the landscape to the generation of weather. The physical and biological processes forming natural systems are considered at many different scales, from soil erosion at the field level to plate tectonics. The impact of human activity on system processes is also surveyed, with particular reference to vegetation change, soil degradation and atmospheric pollution.
Two hours of lectures per week and two hours of laboratory time every two weeks.
~~Exclusions: GGRA05, GGR100~~
T. Price

EESA03F Planet Earth: An Introduction To Earth Science
Telephone ID#: 36310333
The course deals with the composition, structure and origin of the Earth and the physical processes that operate on and in it. The chronological succession of physical and biological events on Earth as revealed in the rock record are highlighted.
~~Exclusion: GLG110, 140, 141, (GLGA01)~~
Prerequisite: None, but one OAC Mathematics and OAC Chemistry or Biology or Physics are recommended.
Session: Winter Day

EESA04S Life on Earth: Introductory Biology for Environmental Scientists
Telephone ID#: 36310453
This course will introduce students to the fundamental principles of biology from an environmental perspective. Lecture topics will include cell structure and function, genetics and development, plant form and function, animal form and function, evolution and diversity, and ecology. Examples used to illustrate these concepts will focus on the manner by which these biological systems (physiological, genetical, etc.) can be influenced by environmental factors.
Two 1 hour lectures, three hour laboratory or tutorial.
Exclusion: Students with prior ~~credit for BIOA03Y may not take EESA04 for credit~~
Session: Winter Day

EESA05S Geological Hazards
Telephone ID#: 36310553
This course will focus on the geological background and possible solutions to major hazards affecting the environment, including such topics as landslides, erosion, earthquakes, volcanic eruptions and asteroid impacts, flooding, glaciation and future climate change, subsidence, and the disposal of toxic wastes. It will be of interest to a wide range of students in the life, social, and physical sciences, and offers 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 (GLGA09)~~
Session: Winter Evening
N. Eyles

EESB01S Principles of Stratigraphy and Sedimentology
Telephone ID#: 36320153
Sediments and sedimentary rocks provide a record of environmental change over the last 3500 million years. This course provides a fundamental understanding of the wide range of sedimentary environments found on planet earth and their stratigraphic record. Techniques of describing and dating sedimentary strata will be demonstrated during local field excursions. This course will interest students in life and physical sciences.
~~Exclusion: GLG301 (GLGB02)~~
Prerequisite: EESA05F(GLGA01Y)
Session: Winter Day
N. Eyles

EESB02F Principles of Geomorphology
Telephone ID#: 36320233
This course will focus on the physical and chemical processes responsible for the development of regolith at the surface of the earth and the mechanics of entrainment, transport and deposition of mass by rivers, wind, glaciers, water waves, gravitational stresses, etc., which control the evolution of surface morphology. Field excursions and laboratory exercises will allow students to apply theory to natural systems and to understand the dynamics of man-modified geomorphic systems.
~~Exclusion: (GGRB19)~~
Prerequisite: EESA02 (GGRA05)
Session: Winter Day
B. Greenwood

EESB03S Principles of Climatology
Telephone ID#: 36320353
A scientific analysis of Earth's climate through study of the governing physical and dynamical controls. The first term focuses on basic elements of Earth's meteorology. Major topics include: atmospheric composition, nature and significance of atmospheric radiation, physical controls on surface and global energy budgets, atmospheric moisture and cloud development, and atmospheric motion, including air mass and front concepts and upper air circulation. The second term examines Earth's major climates. Topics include comparisons and contrasts of: mid-latitude Temperate climates, and Asian/African monsoons. The remainder of the term is devoted to an examination of the nature and theories of climatic change.
Two hours of lecture per week, additional laboratory or tutorial as needed.
~~Exclusion: GGR203, GGR312 (GGRB08)~~
Prerequisite: EESA02(GGRA05) or an A-level science course with permission of instructor.
Session: Winter Day.

EESB04F Hydrology: Measurement, Estimation and Forecasting
Telephone ID#: 36320433
The water and energy balances are considered as the basis for the measurement of the flows of water through the terrestrial part of the hydrologic cycle, and the measurement the components of both balances is described. Conventional or operational modeling of hydrologic processes is considered, as well as the application of these techniques in related fields. Emphasis is placed on the measurement and estimation of water fluxes at the drainage basin scale. The course objectives include a better understanding of how water moves through natural systems, the ways in which human activity changes hydrologic process, and the kinds of modeling used in planning exercises.
Two hours of lectures and one hour of laboratory time per week.
Prerequisite: One of: EESA01, EESA02 (GGRA05), (IDSB02), EESB02 (GGRB19), EESB03 (GGRB03)
~~Exclusions: (GGRC28), (GGRC38), (GGRC38), GGR206.~~
T. Price

EESB05F Introduction to Soil Science
Telephone ID#: 36320533
Introduction to the processes of pedongenesis and the development of diverse soil profiles, their field relationships and their response to changing environmental conditions. The course will examine the evolution of the fundamental soil properties of importance in soil management, and will provide an introduction to techniques of soil examination in the field, soil analysis in the laboratory and the basic principles of soil classification.
Two hour of lecture, 1 hour laboratory each week.
Limited enrollment; 30
~~Exclusion: (GGRC27), (GGRB35)~~
Prerequisite: Any A-level course in environmental science or IDSB02Y
Session: Winter Day
R. Bryan

EESB06S Field Camp I
Telephone ID#: 36320653
This course is designed to familiarize the student with field work in the Earth Sciences. The camp will be held in alternate years in Costa Rica(May) or the Rocky Mountains (September).
Prerequisite: EESB07F and EESB01S (GLGB02S)
Session: Winter Day
Staff

EESB07F Introductory Mineralogy
Telephone ID#: 36320733
Crystallography, physical properties, origin and occurrence of minerals; and the descriptive mineralogy of approximately eighty common and useful minerals.
~~Exclusions: GLG219, 221, (GLGB05)~~
Prerequisite:EESA03F(GLGA01Y) CHMA02Y
Session: Winter Day
D. Gorman

EESB08S Optical Mineralogy
Telephone ID#: 36320853
Optical mineralogy and identification of the principal rock-forming minerals in thin section by the use of the polarizing

microscope; introduction to petrography.
Exclusions: [illegible]
Prerequisite: EESB07F
Session: Winter Day
J. Gittins

EESC01F Environmental Economics and Law
Telephone ID#: 36330133
This course deals with the application of economic analysis to problems of environmental change and natural resource use. It examines market processes in situations where externalities in production and consumption are present and the application of benefit-cost analysis to environmental problems. The course also provides a brief introduction to issues in environmental law and to the statutory and regulatory framework for environmental management in Ontario.
Prerequisite: Permission of Instructor
Session: Winter Day

EESC03S Remote Sensing & Geographic Information Systems
Telephone ID#: 36330353
A Geographic Information System or "GIS" is a computer-based system including hardware and software for the input, storage, retrieval, manipulation and analysis of remote sensing information and other data. In the environmental sciences this type of information might include the concentration of contaminants, the number of species of fish, and the water temperature at several sample points within a given lake. A GIS in essence allows such "go-referenced" data to be visualized as a series of digitally-encoded map layers which can be overlain, cross-referenced, and queried to reveal relationships and trends within the data. The purpose of this course is to illustrate the basic principles of GIS, to provide hands-on experience with GIS software/hardware and to demonstrate some specific applications of the technology in the environmental sciences using satellite imagery and air photographs.

The first half of the course will provide an introduction to the fundamentals of GIS and remote sensing; topics will include spatial data types, data capture, data input and output formats, geo-referencing and coordinate systems, topology, spatial analysis techniques, data output and map production. The latter half of the course will explore the applications of GIS technology as a tool in the management of environmental problems. Several case studies and databases will be examined which demonstrate GIS applications in both regional (e.g. waste management in the Metro Toronto region, acid mine drainage in Northern Ontario, bio-uptake and fate of toxins in the Great Lakes Basins, 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 (IDRISI, SPANS (Spatial Analysis System, ArcInfo) and hardware devices (workstations, digitizer, plotter) in the GIS teaching lab.
Prerequisites: Five full-course equivalents in EES courses.
Session: Winter Day

EESC04S Biogeography and Diversity
Telephone ID#: 36330453
Animals and plants exhibit distribution patterns in both space and time. Study of these patterns together with the various factors (many of them environmental) that cause them constitute the science of biogeography. Biogeography is truly an interdisciplinary subject, an integral part of the study of evolution, and is thought by many to lie at the very heart of biology. This course will cover the basic principles and practices associated with the patterns of life on Earth. Coverage will begin with consideration of the physical limitations of life, diversity, the major biomes (marine and terrestrial) and the concepts of abundance and rarity. Subsequent topics will include the basics of phylogenetic and evolutionary systematics, continental drift and plate tectonics, the effects of scale on process and pattern, the concepts of centres of dispersal and endemism, comparison of the biotas of continents and islands, and the geography of genes and chromosomes. The fundamental influence of climate will be studied through consideration of global temperature change, with emphasis on the role of ice and events during the Quaternary - a period of especially rapid change. Important biological processes to be studied will include adaptation, speciation, colonisation and extinction, competition and predation. The course will conclude with consideration of the unique role of mankind in shaping modern biogeography and will cover topics such as megafaunal extinctions, domestication and agriculture, fragmentation and conservation.
Two 1 hour lectures; one three hour laboratory per week
Prerequisite: EESA04 or BIOA03Y
Session: Winter Day

EESC05H Coastal Geomorphology
Telephone ID#: 36330543
Canada, with one of the longest coastlines in the world, borders on three oceans and the world's largest inland lake system. Human use of this coastal zone is accelerating at a greater pace than our understanding of the physical processes which occur naturally in this environment. The course is designed to introduce students to the basic hydrodynamics and sediment transport processes which control the morphological forms and morphodynamic behaviour (e.g. erosion, accretion etc.) of coastal systems and the current problems arising from the use and abuse of this dynamic environment by humans (e.g. shoreline recession, pollutant transport, etc.). While theory will be focused on the Canadian Great Lakes System (specifically the Scarborough/ Toronto Waterfront) through field excursions, essays and projects.
Exclusion: (GGRC26)
Prerequisite: EESB02F
Session: Winter Day
B. Greenwood

EESC06H Quaternary Environments
Telephone ID#: 36330643
The Quaternary is a period of unprecedented and well documented change characterized most visibly by fluctuating climate and sea level. This course is designed to familiarize students with the worldwide effects of environmental change during the last three million years, leading to the development of the modern global flora and fauna. Topics will include: the Tertiary legacy; Quaternary driving forces, e.g. glaciation, sea level changes and their effects on climate, topography and soils; nature of the evidence; relevance of Quaternary studies to present and future states of the environment; responses of plants and animals to environmental change - extinction, evolution, migration, microhabitat exploitation; *terrestrial environments* - effects of latitude and soil immaturity on fauna and flora; *aquatic environments* - distribution, temperature regimes; examples of Quaternary vegetation changes in the main floral realms of the world; examples of Quaternary animal changes in the main faunal regions of the world with special emphasis on Nearctic/Palearctic differences; development of the Arctic flora and fauna; glacial relicts; Holocene changes related to human activity.
Prerequisites: EESA04 or BIOA03Y, plus BIOB12Y
One two hour lecture/tutorial plus one three hour laboratory/workshop per week.
Session: Winter Day
N. Williams
Offered in 1994/95

EESC07F Exploration Techniques in Hydrogeology
Telephone ID#: 36330733
Following an introduction to the principles of hydrogeology and the mechanics of groundwater flow, emphasis is directed towards practical methods of groundwater exploration and assessment. These methods include drilling, surface and borehole geophysics, pumping test analysis and resource evaluation.
Exclusion: (GLGC10)
Prerequisite:EESA03F(GLGA01Y) MATA26Y
Session: Winter Evening
K.W.F. Howard

EESC08S Subsurface Exploration Techniques: Drilling
Telephone ID#: 36330853
This course is designed to expose students to drilling techniques necessary for geotechnical, hydrogeological and mineral exploration investigations. The course is organized as field demonstrations combined with classroom instruction and laboratory practicals in waterwell, blast hole, geotechnical, exploration and rotary drilling. Applications, limitations, costs, advantages and disadvantages will be stressed. Particular emphasis will be placed on new developments in drilling equipment, overburden drilling and in situ testing in Quaternary sediments, design and installation of hydrogeological monitoring and production wells.
Prerequisite: EESC12H (GLGC06F) (GLGC08) EEC07F or with permission of instructor.
Session: Winter Day
R. Pybus

EESC09H Paleoenvironmental Determination
Telephone ID#: 36330943
The objectives of this course are to introduce students to the diverse and increasingly important methods used in the description of past environments and to the applications of paleoenvironmental determination. The strength of multidisciplinary approaches will be emphasised. Topics covered will include: purposes of paleoenvironmental determination - relevance to climatology, environmental impact assessment, biogeography etc.; history and development of paleoenvironmental research; sources of information - e.g.

waterlaid and aeolian sediments, cores, packrat middens, techniques for retrieval of raw materials; stratigraphic information; dating methods; marine oxygen isotope record; paleosols; paleochemistry; biological indicators - criteria for good indicators; pollen analysis; other plant indicators; vertebrates; insects; other invertebrates; techniques for interpretation of assemblages.
Prerequisites: EESA03F (GLGA01Y) plus EESC06H
Two one hour lecture plus one three hour laboratory per week. One field trip.
N. Williams
Offered in 1995/96

EESC10S Soil Management in Temperate Regions
Telephone ID#: 36331053
The utilization of soil resources in Canada and western Europe, with particular emphasis on environmental impact and soil degradation. The course will focus on the fundamental processes of soil degradation and examine soil conservation techniques and strategies with particular attention to critical issues in Canada such as nutrient cycling and the management of soil fertility, soil erosion and conservation, soil contamination and acidification, problems of drainage and secondary salinization, and the management of Arctic and Alpine soils. The course will involve regular laboratory projects in the Soil Erosion Research Laboratory.
Two hour lecture and two hour of laboratory each week.
Limited enrolment: 20
~~Exclusion: (GGRC27), (GGRC39)~~
Prerequisite: EESB07F (GGRB35)
Session: Winter Day
Not Offered: 1993/94

EESC11S Tropical Soil Management and International Development
Telephone ID#: 36331153
This course will examine the salient characteristics of tropical soils and the processes which lead to soil degradation. Soil management practices will be analyzed and potential conservation techniques and strategies will be examined in the content of tropical soil properties and land use patterns. Particular attention will be paid to nutrient cycling and sustainable cultivation, to vegetative and mechanical approaches to soil conservation, to soils and agriforestry and to soil and water management in arid and semi-arid regions. One two hour lecture and one two hour laboratory every second week. Laboratory projects in the Soil Erosion Laboratory will be involved.
Limited enrolment: 40
Exclusion: (GGRC27) (GGRC40)
Prerequisite: EESB05F (GGRB35)
R. Bryan

EESC12F Glacial and Periglacial Geology
Telephone ID#: 36331233
Large ice sheets have covered all but 3% of the Canadian landmass many times in the last 2 million years. A thorough understanding of glacial processes and stratigraphies is essential for environmental geology, hydrogeology, mineral exploration and geo-engineering. Field and project work emphasize the glacial record of Southern Ontario
~~Exclusion: EESC12H (GLGC06S), GEO[illegible]~~
Prerequisite: EESB01F(GLGC02S) or EESB02H(GGRB19Y)
Offered in alternate years.
Session: Winter Day
N. Eyles

EESD01S Research Seminar in Earth and Environmental Science
Telephone ID#: 36340153
This course provides an opportunity for students in environmental science to apply concepts and methods developed in the program to practical environmental problems, within the framework of individual or group research. Preparation of a research paper or dissertation will be involved. The course is also designed to ensure interaction between students from disparate streams of environmental science through participation in joint seminars, which will also involve environmental practioners from the external community.
Prerequisite: Permission of Instructor
Session: Winter Day

EESD02S Contaminant Hydrogeology
Telephone ID #: 36340253
The first part of the course deals with natural hydrochemical processes and investigates the use of major ions, minor ions, trace metals and environmental isotopes in studying the occurrence and nature of groundwater flow. The second part concerns point and non-point sources of groundwater contamination and the mechanisms of contaminant transport.
~~Exclusion: (GLGD01)~~
Prerequisite: EESC07F and CHMA02Y, or MATB41F and CHMB22Y or CHMB11Y
Session: Winter Evening
K.W.F. Howard

EESD03S Theoretical Geomorphology
Telephone ID#: 36340353
History and philosophy underlying modern theories of landform evolution. Emphasis will be placed on readings and seminar work dealing with the modeling of geomorphic systems and the constraints imposed by space and time.
Limited enrolment: 20
Prerequisite: EESB02F(GGRB19Y) and one of EESC05H (GGRC26), GGRC27 or GGRC28; a background in science will be useful.
Session: Winter Day
B. Greenwood

EESD04S Sedimentary Models
Telephone ID#: 36340453
The basic principles of sediment transport mechanics will provide the focus for the interpretation of the physical properties of clastic sedimentary bodies. Detailed examination of a wide range of modern sedimentary systems will be undertaken to establish analogues for palaeo-environmental interpretation. Lectures will be complemented by seminars and occasional field and laboratory work.
Limited Enrolment: 20
~~Exclusion: (GGRC25) (GGRD04)~~
Prerequisite: EESB02H (GGRB19) and one of EESC05H (GGRC26), GGRC27, GGRC28; a background in science will be useful.
Session: Winter Day

EESD05S Hillslope Geomorphology
Telephone ID#: 36340553
The course will involve a review of the development of major concepts of hillslope evolution, detailed theoretical and practical study and measurement of hillslope processes, and application of the principles of hillslope geomorphology to problems of landuse management, such as soil erosion and lake bluff collapse.
Limited enrolment: 15
~~Exclusion: (GGRC25) (GGRD05)~~
Prerequisites: EESB02H(GGRB19) and one of EESC05H (GGRC26) and /or GRC28
Session: Winter Day
Not Offered: 1993/94

EESD06F Climatic Change
Telephone ID#: 36340633
This course will focus on the myriad nature of climatic change. Climatic change will be considered from instrumental and proxy data points of view and from various theories that have been involved to explain it. The last part of the course will examine several numerical models (e.g. radiative, energy balance models) that have been applied to simulate climatic change.
~~Exclusion: (GGRD06)~~
Prerequisites: EESB03(GGRB03)
Session: Winter Day

EESD07F Field Camp II
Telephone ID#: 36340733
The third year field camp is designed to familiarize the student with several geological settings and modern environments. The camp is held in alternate years in Costa Rica (May) or the Rocky Mountains (September).
Prerequisite: EESB01S(GLGB02S) GLG332F
Session: Winter Day
N. Eyles and K.W.F. Howard

EESD08F Urban Geology of Metropolitan Toronto
Telephone ID#: 36340833
The long term health of natural environments in the vicinity of Metropolitan Toronto is threatened by rapid urbanization. Visits will be made to problem areas in the greater Toronto area where remedial work and other environmental investigations are ongoing. The application of environmental geology to problem management will be emphasized. The course will be particularly useful for those students wishing to pursue a career with government regulatory agencies, private sector environmental consulting companies or in education.
Offered in alternate years.
Session: Winter Day
Prerequisites: EESC12F, EESC07F
N. Eyles

EESD09/H/D10Y Research Project
This course is designed to give students experience in the design, implementation, and reporting of a substantial research project involving laboratory and/or fieldwork. Existing faculty research allows a broad range of possible topics. The project may be designed as a half or full course and should be undertaken after the end of the 3rd Year, subject to faculty availability. Faculty permission and supervision is required and the course is only open 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 research projects.
~~Exclusions: GLG470, 471, (GLGD02, GLGD03)~~
Session: Winter Day
Staff

EESD11S Hydrology: Physical Processes and Modeling
Telephone ID#: 36341153
The motion of water in terrestrial systems is explored at the hillslope scale, with particular reference to the relationships between surface and subsurface hydrologic processes, and also to the way in which streamflow is generated. The physical processes of infiltration and soil water motion are described in detail. The application of physically based modeling to snowmelt processes is treated, and the difficulties of using physically based models in general for the prediction of natural system behaviour are explored. Two hours of lectures and one hour of laboratory time per week.
Prerequisites: Either EESB04F (GGRC38)
Exclusion: EESC05H (GGRC28Y), (GGRD07)
T. Price

EESD12F Environmental Geophysics
Telephone ID#: 36341233
Applied geophysical techniques are increasingly used to investigate the impact of environmental conditions on urban development and vice-versa. This course will focus on the current methodology and instrumentation used for environmental investigations. The methods of exploring the sub-surface have found specialized, but important, uses in engineering and environmental studies. This course involves field visits and various geophysical techniques in geotechnical, civil and environmental engineering.
Prerequisites: EESC12F, EESC07F
Session: Winter Day
A. Mohajer

Fine Art

Discipline Representative:
Fine Art History: M. C. Shaw (287-7153)
Fine Art Studio: D. Holman (287-7177)
Fine Art is the field which deals with objects of all sorts that have cultural and aesthetic importance. Because the range of these works is virtually without boundaries, widely divergent approaches come into play in studying them.
Increasingly, however, these approaches emphasize the ways that works of art reflect major social and ideological conditions in their cultures.

At Scarborough College, Fine Art includes both Art History and Studio, two separate but interrelated fields.

Fine Art History

Because art is perceived through the eyes and other senses as well as through the intellect, art history courses commonly present their subjects via slides, films, videos, and direct viewing of art works in galleries and museums and in the cities. Although the course structure reflects a traditional division into time periods, instructors often use new methodologies to explain the work within these periods.

Art history courses at the A-level and B-level are normally open to all students. In addition to the practice in critical thinking and writing provided by all humanities courses, these courses offer basic information about art and architecture in all phases of Western culture, and a chance to improve one's perceptual awareness. Prerequisite for all C-level courses in Art History: one full-course equivalent at the B-level or permission of the instructor.

Students who enrol in the Major and Specialist Programmes should take the half-courses FARA10, FARA11, FARA12 and FARA13 as early as possible in their university careers, and should consult the Supervisor of Studies when arranging their course sequences.

The Department of Fine Art *Undergraduate Handbook* summarizes course offerings and resources for Fine Art students on all three University campuses. Woodsworth College also publishes a pamphlet describing Fine Art courses it offers in a summer programme in Siena, Italy.

Specialist Programme in Fine Art History
Supervisor: R. Siebelhoff (287-7169)
Students must complete twelve full-course equivalents as follows:
1 FARA10F; FARA11S; FARA12F; FARA13S
2 Four B-level course equivalents in art history, with at least one half-course each in the areas of classical, medieval, renaissance, baroque and modern art.
Students may also meet one-fourth of this requirement by substituting one full-course equivalent from the following list:

FARA90Y	Foundation Studies in Studio
ANTB38Y	Prehistory of North America North of Mexico*
ANTB49F	Myth and Symbol*
FARB92Y	Sculpture Concepts*
GGRB13Y	Modern Urban Landscapes
HUMB70Y	Introduction to Cinema
PHLB03F/S	Philosophy and Art
PSYB50F/S	Sensation and Perception*
PSYB51F/S	Perception and Cognition*
ANTC50F/S	Death and Burial*
ANTD03Y	Analysis of Archaeological Material*

*Check calendar entries for prerequisites
3 Four full-course equivalents in art history at C/D level (or at the 300/400 level on the St. George campus).
4 Two full-course equivalents with the approval of the Programme Supervisor.

Major Programme in Fine Art History
Supervisor: R. Siebelhoff (287-7169)
Students must complete seven full-course equivalents as follows:
1 FARA10F; FARA11S; FARA12F; FARA13S
2 Three full-course equivalents at the B level with at least one half full-course equivalent in each of the following areas:
Classical
Medieval
Renaissance
Baroque
Modern (1750 to the present)
3 Two full-course equivalents in art history at the C/D level (or at the 300/400 level on the St. George campus).

FARA11F Medieval Art
Telephone ID #: 06211133
A survey of European architecture, sculpture, painting, illumination, and minor arts, from the late Roman Empire to the end of the Middle Ages.

The course examines the origins of European artistic traditions in the early Christian, Mediterranean world; how these traditions were influenced by classical, Byzantine, Moslem and pagan forms; how they developed an entirely new form of artistic expression in the High Middle Ages; and how they led on to the Renaissance. Texts will include E. Kitzinger, *Early Medieval Art*; R. Krautheimer, *Early Christian and Byzantine Architecture*; O. von Simson, *The Gothic Cathedral*, and others.
Exclusion: FAH261
Session: Winter Day
T.B.A.
Offered 1994/95

FARA12F Renaissance and Baroque Art
Telephone ID #: 06211233
A survey of architecture, painting and sculpture from 1400 to 1750.

The course will present important monuments, primarily from Italy and the Netherlands, including works by such artists as Jan van Eyck, Leonardo da Vinci, Michelangelo, Rembrandt, and Bernini. Text: Frederick Hartt, *Art: A History of Painting, Sculpture, Architecture, Vol. II*, 1989 edition.
Session: Winter Evening
T.B.A.
Offered 1994/95

FARA13S Art after 1750
Telephone ID #: 06211353
A study of European and North American painting, sculpture and architecture from the period of the American and French Revolutions until the present.

By a careful analysis of key works of art, the course will present a view of artistic conditions in major centres throughout the Western world. Text: Frederick Hartt, *Art: A History of Painting, Sculpture, Architecture, Vol. II*, 1989 edition.
Session: Winter Evening
L. Carney
Offered 1994/95

FARB04F Archaic Greek Sculpture (650-480 B.C.)
Telephone ID #: 06220433
The beginnings of Western sculpture. During this period of experimentation, early sculptors worked out problems of the naturalistic rendition of the human figure, both singly and in scenes of action, drawing mainly from mythology. This early form of realism and concern for correct proportions and anatomy was tempered by a love for decorative pattern. This resulted in a vigorous, innovative, and attractive style. Its studied simplicity and a certain abstraction give this work an affinity with modern art.
M. Shaw
Session: Winter Day
Not offered 1994/95

FARB05S Classical Greek Sculpture (480-300 B.C.)
Telephone ID #: 06220553
The high point in Greek sculpture.

Frequent archaeological discoveries keep this a living and growing field. New sculptures (like the stunning bronze warriors recently found off the coast of Italy) are examined alongside older and better known classical pieces (such as the

famous sculptures of the Parthenon), to illustrate the sophisticated ways in which Greek sculptors dealt with concerns of realistic human representation. Scenes derived form myth and legend in these works became vehicles for religious and political expression. The Greek obsession with the human being and the belief in reason, which replaced superstition and formed the basis of Western humanism, are vividly reflected here.
Exclusion: FAH304
Prerequisite: FARB04 is highly recommended
M. Shaw
Session: Winter Day
Not offered 1994/95

FARB10S Carolingian and Romanesque Art and Architecture
Telephone ID #: 06221053
A survey of the art and architecture of Europe from 800 to 1150, considered in light of the varied artistic developments of the contemporary Mediterranean world. The course will consider the major artistic and architectural monuments of Europe from the Carolingian renaissance to the renaissance of the twelfth century. Works will be considered in their geographical context and in relation to the art and architecture of the later Roman Empire, Byzantium and Armenia, Islam, and to the art of the invasion period. The importance of monasticism and pilgrimage will also be discussed. Texts: E. Kitzinger, *Early Medieval Art*; G. Zarnecki, *Romanesque Art*; K.J. Conant, *Carolingian and Romanesque Architecture*.
Exclusion: FAH321, 322
Prerequisite: FARA11S highly recommended
M. Gervers
Session: Winter Day
Not offered 1994/95

FARB19F Michelangelo
Telephone ID #: 06221933
A survey of his activity in architecture, sculpture, and painting.
Study will focus on large decorative works and projects like the Sistine ceiling, the tomb of Julius II and the Medici Chapel. The course will emphasize special aspects of Michelangelo's ideas, above all the relationship of the artist with neoplatonism and with the religious trends of his time. Some time will also be spent on Michelangelo's theory of art and on his poetry. Text: H. Hibbard, *Michelangelo*, New York, 1974.
Exclusion: FAH273
G. Scavizzi
Session: Winter Day
Not offered 1994/95

FARB29Y Baroque Painting in the Netherlands
Telephone ID #: 06222963
A study of painting and drawing in the Dutch Republic in the so-called Golden Age from 1600 to 1675.
The subject includes portraiture, landscape and still life. Work done in these categories forms the basis of a great deal of later Western painting. The approach to the material will be problem oriented, rather than chronological. FARC11 is a continuation of this course.
Text: Rosenberg, *Slive and Ter Kuile, Dutch Art and Architecture 1600-1800*, paperback edition in the Pelican History of Art series.
Exclusion: FAH308
Session: Winter Day
R. Siebelhoff
Not offered 1994/95

FARB37F Rococo to Romanticism
Telephone ID #: 06223733
Painting, sculpture and architecture in France between 1750 and 1830.
Several major artistic movements of the revolutionary period will be studied in their relation to each other and to French history. Special emphasis will be placed on Paris, where most of the important artists worked, including Boucher, David, Ingres and Delacroix. Texts: Michael Levey, *Rococo to Revolution*, New York: Praeger, 1969; and Hugh Honour, *Neo-Classicism*, Penguin Books, 1969.
Exclusion: FAH282
Session: Winter Evening
R. Siebelhoff
Not offered 1994/95

FARB43S Impressionism
Telephone ID #: 06224333
A study of Impressionism as a turning point in Western art.
The course will explore nineteenth century landscape painting as a main source of Impressionism. The members of the Impressionist group, in particular Manet, Pissarro, Renoir and Monet, will be discussed in detail. Text: John Rewald, *The History of Impressionism*, New York: Museum of Modern Art, various editions (soft cover).
Exclusion: FAH378
Session: Winter Day
R. Siebelhoff
Not offered 1994/95

FARB46S Post Impressionism
Telephone ID #: 06224653
The painting and drawing of late nineteenth-century pioneers of modern art.
The course offers a detailed study of the major post impressionist artists, including Cézanne, Seurat, Van Gogh, and Gauguin; their roots in Impressionism; the highly independent directions of their careers; and their establishment of artistic principles that extend far into the twentieth century. It connects the importance these artists placed on individual perception with the ideas and social currents they experienced.
Exclusion: FAH282
Session: Winter Day
L. Carney
Not offered 1994/95

FARB60Y The Arts in Canada: 1670-1960
Telephone ID #: 06226063
A survey of painting and sculpture in French and English Canada.
The course examines the art of French and English Canada in its diverse social, political and cultural contexts. Text: Dennis Reid, *A Concise History of Canadian Painting*, 1988 edition.
Exclusion: FAH286
Session: Winter Day
L. Carney
Not offered 1994/95

FARB66Y Women and Visual Art
Telephone ID #: 06226663
The influence of feminism on making and understanding art in the last 150 years.
Using informal lectures, the course discusses women artists and their relationship to "mainstream" art. It also studies the impact of feminist theories on art movements and the changes they have engendered.
Prerequisite: WSTA01Y, FARA13F/S, FARA91F/S or permission of instructor
Session: Winter Day
L. Carney, J. Hoogstraten
Not offered 1994/95

FARB69F The Art of Southeast Asia
Telephone ID #: 06226933
Art of the Southeast Asian peninsula including Cambodia and Thailand as well as Java and Bali in Indonesia.
The course will concentrate on two of the most important groups of monuments in Southeast Asia, namely the Borobudur Temple on Central Java (850 to 1000AD) and the group of Khmer monuments at Angkor in Cambodia (9th to 13th century). The influence of Buddhism will be a major reference point in the discussion of these monuments. Textbook: Philip Rawson, *The Art of Southeast Asia*, London: Thames and Hudson. Reprint 1990 soft cover.
Session: Winter Day
R. Siebelhoff
Not offered 1994/95

FARC14S Art Around 1900
Telephone ID #: 06231453
An exploration of the two interrelated movements of Symbolism and Art Nouveau.
These movements took place in such centres as New York, Brussels, Paris and Vienna. The course will emphasize the remarkably rich range of objects created, including paintings, art glass, books, jewellery and fashion. Careful attention will be paid to the literary sources of visual images.
Prerequisite: One full-course equivalent at the B-level or permission of the instructor
Session: Winter Day
R. Siebelhoff
Not offered 1994/95

FARC17F Leonardo da Vinci
Telephone ID #: 06231733
A study of Leonardo's accomplishments in the various areas of his activity.
At the beginning the focus will be on Leonardo as an artist, from his early works in Verocchio's studio to the masterpieces of his mature period, like The Virgin of the Rocks, The Last Supper, and The Mona Lisa. Attention will then be paid to Leonardo's philosophical ideas, to his interest in nature, to the way his research became integrated into his art, and to his contribution to the birth of modern science. Finally, the course will deal with the approaches taken by Freud and other psychoanalysts in an effort to decipher Leonardo's unique personality.
Prerequisite: One full-course equivalent at the B-level in art history.
Session: Winter Day
G. Scavizzi
Not offered 1994/95

FARC18S Seminar in Twentieth-Century Art
Telephone ID #: 06231853
Special topics in twentieth-century painting and sculpture.
The subject will change from time to time. After introductory sessions outlining the subject and ways of getting information about it, each seminar member will research a topic and present it.
Session: Winter Day
L. Carney
Offered 1994/95

FARD02F/S
FARD03Y Supervised Reading in Classical Art
Exclusion: FAH480, 481
FARD04F/S
FARD05Y Supervised Reading in Medieval Art
Exclusion: FAH482, 483
FARD06F/S
FARD07Y Supervised Reading in Renaissance and Baroque Art
Exclusion: FAH484, 485, 486, 487
FARD08F/S
FARD09Y Supervised Reading in Modern Art
Exclusion: FAH488, 489
A course offering the opportunity for advanced investigation of an area of interest; for students who are nearing completion of art history programmes and who have already acquired research skills sufficient for independent work. Students must locate a willing supervisor, and topics must be identified and approved, by the end of the previous term. A reading knowledge of a second language is recommended.
Prerequisite: One C-level full-course equivalent in art history.
Session: Winter Day
Members of Faculty

For courses in Arts Administration previously listed with a Humanities course designation, see Co-operative Programme in Arts Administration.

Courses Not Offered in 1993/94

FARA10F Ancient Art and Architecture (ca. 900 B.C. - 300 A.D.)
Exclusion: FAH203, FAH204
Offered 1994/95
FARB15F Renaissance in Italy
Offered 1994/95
FARB16Y The Arts in Northern Europe ca. 1400-1500
Exclusion: FAH307Y
Offered 1994/95
FARB27F Baroque Painting in Southern Europe 1600-1650
Offered 1994/95
FARB49Y Twentieth-Century Art
Offered 1994/95
FARB55Y American Painting 1880-1980
Exclusions: (FARB54), FAH212
Offered 1994/95
FARB62F Recent Canadian Art
Offered 1994/95
FARC05S Wall Painting in Ancient Egypt and the Bronze Age Aegean (3200-1200 B.C.)
Exclusion: (FARB02)
Prerequisite: One full-course equivalent at the B level or permission of instructor
Offered 1994/95
FARC06F Gothic Architecture
Exclusion: FAH268
Prerequisite: One full-course equivalent at the B-level or permission of instructor
Offered 1994/95
FARC11F Frans Hals, Rembrandt, and Vermeer
Exclusion: FAH308
Prerequisite: One full-course equivalent at the B-level in Fine Art History, preferably FARB29Y.
Offered 1994/95
FARC13S Nineteenth Century Realism
Prerequisite: One full-course equivalent at the B-level in Fine Art History or permission of the instructor
Offered 1994/95

Fine Art Studio

The Specialist Programme is designed for students who are considering art as a profession and/or who may want to continue to the graduate level. It also prepares students for work in the areas of art gallery administration, curating, arts councils, and art college teaching.

Specialist Programme in Fine Art Studio
Supervisor: Don Holman (287-7177)
Students must complete fourteen and one half full-course equivalents: ten and one half full-course equivalents in studio; two full-course equivalents in art history which must include FARA13; and two additional full-course equivalents in cognate disciplines. The list of recommended courses is available from the Programme Supervisor. The courses in studio must include:
1 FARA90Y; FARA91F/S
2 FARB70F/S; FARB72F/S; FARB75Y; FARB82F/S; FARB86F/S
3 Four full-course equivalents from the remaining B-level, and/or C-level chosen in consultation with the supervisor.
4 Two D-level full-course equivalents.

The Major Programme in Studio will give the student a full and broad exposure to both the various processes of art-making and to recent developments in art criticism. The programme provides some preparation for teaching at the high school or elementary level.

Major Programme in Fine Art Studio
Supervisor: Don Holman (287-7177)
Students must complete seven full-course equivalents as follows:
1 FARA90Y; FARA91F/S
2 FARA13S
3 FARB70F/S*
4 FARB72F/S*
5 FARB74F/S*
6 FARB75Y*
7 Two and one-half additional full-course equivalents, one of which must be at the D-level*.
* Students should check these courses for prerequisites.

A recommended approach to our programmes would be:

MAJOR PROGRAMME
First Year:
FARA90Y Foundation Studies in Studio
FARA91F/S But Why is it Art?
FARA13S
Second Year:
FARB70F Drawing I
FARB72F Contemporary Issues in Printmaking
FARB75Y Painting I
FARB82F Introduction to Lithography
FARB74S Drawing II
Third Year:
FARC82F/FARC83F or FARC77F*
FARD24S/FARD25S or FARD20S*

SPECIALIST PROGRAMME
First Year:
FARA90Y Foundation Studies in Studio
FARA91F/S But Why is it Art?
FARA13S
Second Year:
FARB70F Drawing I
FARB72F Contemporary Issues in Printmaking
FARB75Y Painting I
FARB82F Introduction to Lithography
FARB83S Intermediate Lithography
FARB74S Drawing II
Third Year:
FARC82F/FARC83S or FARC77F*
FARB73Y* or FARB92Y* or another FCE at the B-level or C-level.
FARB86F/S and one other half-course at the B-level or C-level.
Fourth Year:
Two full-course equivalents at the D-level
FARD24S/FARD25S or FARD20S*
*These courses should be checked for availability due to cycling.

The Fine Art Studio curriculum is built around the idea that art is a means of expressing and understanding the human condition. It does not offer courses in commercial or advertising art.

Our courses offer the student a practical "hands-on" experience in art-making. 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. Through the actual process of art-making, the student will develop the ability to understand and experience the challenges of contemporary art. Critical skills will expand along with practical skills.

Our A-level studio course is Foundation Studies in Studio and it covers, through practice and discussion, basic media and concepts. The corequisite is FARA91F/S But Why is it Art?. They must be taken before advancing to our B-level courses which will introduce the student to other media, processes, and a deeper investigation of the ideas behind art. C-level and D-level courses allow supervised and independent work in any area the student wishes to investigate.

The Major and Specialist Programmes require an Art History course, FARA13. In addition, we strongly urge our students to take other Art History courses dealing with modern and contemporary art.

Students will be expected to purchase the materials necessary for each course. An estimate of the costs is available from the Programme Supervisor.

FARA90Y Foundation Studies in Studio
Telephone ID #: 06219063
An introduction to the various processes of art-making: drawing, painting, sculpture, printmaking, installation work, performance, and/or video.

This course is intended to prepare the student for further study in Studio. A basic foundation of visual understanding will be built through the personal exploration of a number of processes, concepts, and media.

Students will discover, through assigned work and discussions, the many ways contemporary art is made. They will be required to explore a number of these processes through assignments and will also be expected to give an oral

presentation on a contemporary artist.
Limited enrolment: 20 per section
Exclusion: FAS110
Corequisite: FARA91
Prerequisite: an OAC in Visual Art or permission of instructor following a positive evaluation of a portfolio.
Session: Winter Day
Staff
Offered 1994/95 and 1995/96

FARA91F But Why is it Art?
Telephone ID #: 06219133
An introduction to the basic ideas behind recent art, how they developed, and why they change.
"I don't know anything about art but I know what I like." Why do we feel uncomfortable when confronted with contemporary art? What are we supposed to be thinking and why? This course aims to develop a broad basic knowledge of the critical positions that led to major changes in recent art.
Session: Winter Day
J. Hoogstraten
Offered 1994/95 and 1995/96

FARB66Y Women and Visual Art
Telephone ID #: 06226663
The influences of Feminism on making and understanding art in the last 150 years
Using informal lectures , the course discusses women artists and their relationship to "mainstream art". It also studies the impact of feminist theories on art movements and the changes they have engendered.
Session: Winter Day
L. Carney, J. Hoogstraten
Not offered in 1994/95
Offered in 1995/96

FARB70F Drawing I
Telephone ID #: 06227033
An investigation of the various 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 potentials 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 make up the final portfolio for grading. All assigned work will be discussed in class by the instructor and other class members.
Limited enrolment: 20
Exclusion: FAS238
Prerequisite: FARA90Y
Session: Winter Day
D. Holman
Offered 1994/95 and 1995/96

FARB72F Contemporary Issues in Printmaking
Telephone ID #: 06227233
An exploration of traditional and more experimental processes of printmaking.
Students will investigate the broad possibilities inherent in printmaking through assigned work which will be discussed in class and individually with the instructor. They will also be required to give an oral presentation on a contemporary artist.
Limited enrolment: 15
Prerequisite: FARA90
Session: Winter Day
D. Holman
Offered 1994/95 and 1995/96

FARB74S Drawing II
Telephone ID #: 06227453
A continuation of FARB70 with an increased emphasis on the student's ability to expand her/his 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 completed drawings will be discussed in class and will, with a complete sketchbook, make up the final portfolio for grading.
Limited enrolment: 20
Exclusion: FAS238
Prerequisite: FARB70
Session: Winter Day
D, Holman
Offered 1994/95 and 1995/96

FARB75Y Painting I
Telephone ID #: 06227563
An investigation of the possibilities of painting 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 the shift from Modernism to Post-modernism 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 give an oral presentation on a contemporary artist and write two papers on contemporary art.
Limited enrolment: 20
Exclusion: FAS230
Prerequisite: FARA90
Session: Winter Day
T.B.A.
Offered 1994/95 and 1995/96

FARB82F Introduction to Lithography
Telephone ID #: 06228233
An introduction to black and white stone lithography including a detailed investigation of materials and techniques.
The course will include demonstrations and lectures covering the technical aspects of the medium. Students will be required to pass a test on procedures and explore the medium by drawing, processing and printing several of their own lithographs. Discussions of work will be held regularly on both an individual and group level.
Limited enrolment: 10
Prerequisite: FARA90 or permission of instructor.
Session: Winter Day
D. Holman
Offered 1994/95 and 1995/96

FARB83S Intermediate Lithography
Telephone ID #: 06228353
A continuation of FARB82, with emphasis on multi-colour printing.
The course explores the technical aspects of working with coloured inks. Students will be expected to work out visual ideas by drawing, processing, and printing a number of their own lithographs. Individual and group critiques will be held to discuss assigned work.
Limited enrolment: 10
Prerequisite: FARB82 and permission of instructor
Session: Winter Day
D. Holman
Offered 1994/95 and 1995/96

FARB86F Introduction to Intaglio
Telephone ID#: 06228633
An exploration of printmaking with a focus on etching
This course will involve the student in the various methods of printmaking associated with etching, including engraving and dry point. Both lectures and demonstrations will introduce the student to the basic concepts and processes associated with intaglio printing. Students will draw and process zinc plates and produce several editions in black and white. Group and individual critiques will be held to discuss these prints. Students will also be required to view and assess historical and contemporary prints.
Limited enrolment: 15
Prerequisite: FARB72 or permission of instructor
Exclusion: (FARB84Y)
A. Brannen
Not offered in 1994/95

FARB87S Intermediate Intaglio
Telephone ID#: 06228753
A continuation of FARB86F, focusing on colour and multi-plate printing.
The course will examine the technical aspects of working with coloured inks, and will require students to produce several editions in colour. Individual and group critiques will be held to discuss assigned work. Students will also be required to view and discuss prints by past and contemporary artists and to visit exhibitions and print shops.
Limited enrolment: 15
Prerequisite: FARB86F or permission of instructor
Exclusion: (FARB84)(FARC85)
Session: Winter Day
A. Brannen
Not offered in 1994/95

FARB92Y Sculpture Concepts
Telephone ID #: 06229263
The changes in sculpture in the 20th century, with an emphasis on contemporary art.
This course familiarizes the student with recent concepts in sculpture, primarily the shift from Modernism to Post-modernism, 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 leading a discussion. Students will also be responsible for a number of working drawings dealing with assigned problems. Texts include Rosalind E. Krauss' *Passages in Modern Sculpture.*
Limited enrolment: 15
Prerequisite: FARA90Y or permission of instructor
Session: Winter Day
J. Hoogstraten
Not offered in 1994/95

FARC82F/S
FARC83F/S
FARC86F/S
FARC87F/S
FARC88F/S Supervised Studies in Studio
An opportunity for the student to create a number of personal statements working in an area of her/his own choice.

These courses may be taken in any area including printmaking, drawing, painting, sculpture, photography or mixed media if the student, through the portfolio and proposal, can show the ability to proceed to the intermediate level. Students will provide their chosen instructor with a written proposal within the first week of classes. This will state the intended area of investigation, the amount of work necessary to fulfill it, and a justification of the students' position. They will also meet at appointed times to discuss work-in-progress. Content, method and evaluation will be planned in co-operation with the instructor.
Limited enrolment: 3
Exclusion: FAS338
Prerequisite: FARB74, FARB75, FARB83, FARB84 or FARB92 and permission of instructor based on the written proposal and portfolio.
Session: Winter Day
J. Hoogstraten, D. Holman
Offered 1994/95 and 1995/96

FARD21Y Advanced Studio: Individual Study in Painting
Telephone ID #: 06242163
A further opportunity for individual exploration in painting.

This course is designed for mature students who, through their portfolio and proposal, have shown their ability to work without intensive guidance. Students will provide their chosen instructor with a written proposal within the first week of classes. This will state the intended area of investigation, the amount of work necessary to fulfill it, and a justification of the students' position. They will also meet at appointed times to discuss work-in-progress. Content, method and evaluation will be planned in co-operation with the instructor.
Limited enrolment: 5
Exclusions: FAS430, 431
Prerequisite: at least one half course in painting at the C-level
Session: Winter Day
J. Hoogstraten
Offered 1994/95 and 1995/96

FARD22Y Advanced Studio: Individual Study in Printmaking
Telephone ID #: 06242263
A further opportunity for individual exploration in printmaking.

This course is designed for mature students who, through their portfolio and proposal, have shown their ability to work without intensive guidance. Students will provide their chosen instructor with a written proposal within the first week of classes. This will state the intended area of investigation, the amount of work necessary to fulfill it, and a justification of the students' position. They will also meet at appointed times to discuss work-in-progress. Content, method and evaluation will be planned in co-operation with the instructor.
Limited enrolment: 3
Exclusion: FAS434, 435
Prerequisite: at least one half course in printmaking at the C-level
Session: Winter Day
D. Holman
Offered 1994/95 and 1995/

FARD24F/S
FARD25F/S (FARC25H)
FARD90F/S
FARD91F/S Independent Studies in Studio: Advanced Level
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 their ability to work without intensive guidance. Students will provide their chosen instructor with a written proposal within the first week of classes. This will state the intended area of investigation, the amount of work necessary to fulfill it, and a justification of the students' position. They will also meet at appointed times to discuss work-in-progress. Content, method, and evaluation will be planned in co-operation with the instructor.
Limited enrolment: 3
Exclusions: FAS430, 431, 434, 435, 436, 437, 438, 439
Prerequisite: at least one half course in the area of intended study at the C-level
J. Hoogstraten, D. Holman
Offered 1994/95 and 1995/96.

Courses Not Offered in 1993/94

Fine Art Studio

FARB73Y Photographic Issues in the Visual Arts
FARC77F/S Painting II
FARD20F/S Painting III

French

Discipline Representative: W. J. Bancroft (287-7134)
Supervisor of Studies: C. Evans
Supervisor of Study Elsewhere: C. Bertrand-Jennings (287-7131)
Undergraduate studies of French normally begin with FREA10, Language Practice I, which serves to consolidate previous language experience. This course is also the prerequisite for all advanced language, literature, and linguistic courses in our programme of French studies.

The courses offered are designed primarily for students with OAC French (or Grade 13 French) who wish to continue their study of the language and/or literature of French Canada and France. Those students who have significant "immersion" or "enriched" high school experience should consult the faculty member responsible for FREB10 or FREC01-05 concerning the appropriate *language practice* course for their purposes. Students without OAC French or equivalent are urged to obtain credit for FREA16 on a "study elsewhere" basis, for example, by attending a summer immersion programme. Further information is available from our Supervisor of Study Elsewhere, Professor C. Bertrand-Jennings.

Once FREA10 (or its equivalent) is completed, students intending to continue their French studies may choose courses from a variety of areas: these are described below. Please consult the Programme Supervisors and members of the French staff for more detailed advice about course selection and for information about our Specialist and Major Programmes.

Areas of study in French include:

a) *Practical language studies*
   i) for general purposes: A10, B10, C01-C05
   ii) for special purposes:
   translation: B08, C09, C18
   pronunciation: B48
   business: B18, C18

b) *Literature*
Courses in literature, both of France and French Canada, cover a range of periods and genres. Some literary study is a requirement in each of the Programmes offered by the Discipline.

c) *Linguistics*
Courses in linguistics may be *descriptive* as in B25, B48, and C09, or *historical* as in C42 (France), and C43 (Canada).

Students interested in more comprehensive studies in linguistics are invited to consult the listings under Linguistics. LINA01, and B05 are of particular relevance to French studies.

d) *Civilization*
Courses in the civilization and culture of French Canada, France, and other francophone countries cover all periods and provide opportunities to intensify understanding of the settings within which the literature and the language of these communities have developed. Relevant courses include B22, B23, B27, and B28. Only one *full-course* equivalent in the area of *civilization* may be counted as part of the requirements for each of the Specialist and Major programmes in French.

The College's "Study Elsewhere Programme" offers ideal opportunities for French students to fulfill some of their programme requirements while studying French elsewhere. For example, the University of Toronto sponsors programmes at Laval (Quebec) and Aix-en-Provence (France). If interested, please consult the Supervisor of Study Elsewhere. For further information about the Study Elsewhere Programme and Letters of Permission refer to page #00.

Normally, a student may not take an A-level French course at the same time as or after a B-level French course.

Other courses and suggestions likely to interest students of French may be found under Language Studies.

The French Discipline offers six different programmes: a Specialist Programme in French Language and Literature; a Major Programme in French Language and Literature; a Major Programme in French Language; a Minor Programme in French; a Joint Specialist Programme in Management and Language; and, in co-operation with the

Faculty of Education, a Specialist Programme: Education of Teachers in French. For information on these and other programmes, see pages 131-134.

Specialist Programme in French

Supervisor: C. Evans

Students should complete twelve full-course equivalents, including ten French courses as specified below (items 1-4) and two others (see item 5) as follows:

1 the sequence FREA10Y, FREB10Y, and one full-course equivalent from the sequence FREC01-C05 (except where substitution of other French courses is permitted for students with special proficiency in the French language)
2 one full-course equivalent from the following: FREB25Y, FREC42F/S, FREC43F/S, FREB48Y, FREC09Y
3 four full-course equivalents in French Literature and French Canadian Literature, one of which should deal with a period prior to 1800 and one with a period after 1800
4 two further full-course equivalents in French (see exclusions listed below)
5 two full-course equivalents outside French but from related areas of study, to be agreed upon in consultation with the Supervisor.
6 Of the courses chosen in French (items 1-4), four full-course equivalents must be at C- or D-level (or from the 300 and 400 series courses on the St. George campus). Both the sequence FREC01-C05 and supervised reading may count toward this requirement.
7 Normally no more than one full-course equivalent in the area of supervised reading may be credited for requirements for the Specialist Programme.

It is recommended that students intending to specialize in French take FREA50 or FREB50 early in their programme of studies.

The following may **not** count toward a Specialist Programme:

1 any A-level French course, with the exception of FREA10, and FREA50
2 (FREB17), FREB18, FREB82, FREB90, FREC11, FREC18.

Specialist Programme: Education of Teachers in French

Co-ordinator: W. J. Kirkness

This four-year specialist programme is designed to prepare future teachers of French at all levels in the school system: primary/junior, junior/intermediate and intermediate/senior. It includes **both** academic courses in French and other subjects **and** practicum placements in elementary or secondary schools in years 3 and 4.

The programme is designed and offered jointly by the Division of Humanities, Scarborough College, and the Faculty of Education, University of Toronto, in order to meet the need for teachers of French throughout the school system. It provides a comprehensive education for future teachers of French which emphasizes both content and methodology.

Students will be admitted to the programme on the basis of their overall performance in first year, their performance in FRE courses, and an interview. Students who successfully complete this programme of studies and who meet the admission requirements of the Faculty of Education will be admitted to the University of Toronto's Faculty of Education. Up to 20 students will be selected for this programme each year, starting in 1993-94.

Students in this Specialist Programme must complete a total of 20 courses chosen from the two main categories below:

A. Ten full-course equivalents in French as follows:
1 Three full-course equivalents consisting of: FREA10Y, FREB10Y, and one full-course equivalent (normally one half-course in written French and one in oral French) from the sequence FREC01-C05 (except where substitution of other French courses is permitted for students with special proficiency in the French language).
2 Two full-course equivalents selected from the following: FREB25Y; FREB48Y; FREC42F/S; FREC43F/S
3 One full-course equivalent selected from the following: **either** FREB22F/S **or** FREB23F/S; FREB27F/S; FREB28F/S
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; one half-course in French literature from other parts of the French-speaking world excluding France and Canada.
5 FREB11H and FREC11H

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

Practicum requirement

All programme registrants are required, in years 3 and 4, to spend a minimum of one half-day per week engaged in a supervised classroom teaching experience. This experience will allow registrants to put into practice their understanding of the French language teaching methods presented in FREB11 and FREC11. Scarborough College, in association with the Faculty of Education, will arrange these practicum placements in local elementary and secondary schools.

B. Ten further full-course equivalents: Students are advised to choose courses to suit the teaching programme and the teaching subjects they are interested in. Information and advice will be available through the Programme Coordinator at Scarborough and through counselling at the Faculty of Education. The following are recommended as general preparation for the FEUT B.Ed. Programme:
- a half-course in educational psychology
- a half-course in language acquisition
- a half-course to develop computer skills.

Major Programme in French Language and Literature

Supervisor: C. Evans

Students should complete seven full-course equivalents, including:

1 FREA10Y, FREB10Y, (except where substitution of other French courses is permitted for students with special proficiency in the French language).
2 one full-course equivalent from the following courses: FREB08F/S, FREB25Y, FREB42F/S, FREB48Y, FREC09Y, FREC01-C05.
3 four further full-course equivalents in French, of which three must be in the areas of French and French-Canadian literature.
4 Students may include in their Major Programme a maximum of one supervised reading course.

It is recommended that students intending to pursue a Major in French Language and Literature take FREA50 or FREB50 early in their programme of studies.

The following may not count toward a Major Programme in French Language and Literature:

1 any A-level French course, with the exception of FREA10, and FREA50
2 FREB18, FREB82, FREB90, FREC18.

Note: Students intending to pursue their studies in French at the graduate level are advised that only the Specialist Programme qualifies them for admission to the Graduate Department of French at this University.

Language requirements will be waived by the Supervisor for students judged to have advanced knowledge of French. Equivalent courses from the discipline's offerings will be substituted. Students are strongly advised to discuss their programme as soon as possible with the Supervisor.

See also Specialist Programme in Modern Languages (listed under Language Studies).

Major Programme in French Language

Supervisor: C. Evans

Students should complete seven full-course equivalents, including:

1 FREA10Y, FREB10Y, and one full-course equivalent from the sequence FREC01-C05 (except where substitution of other French courses is permitted for students with special proficiency in the French language)
2 two full-course equivalents from the following: FREB08F/S, FREB18Y, FREB25Y, FREC42F/S, FREC43F/S, FREB48Y, FREC09Y, FREC18F/S.
3 two other full-course equivalents in French, one of which must be in the area of French or French-Canadian literature, and one in French or French-Canadian civilization.
4 Students may include in their Programme a maximum of one supervised reading course.

The following may not count toward a Major Programme in French Language: any A-level French course, with the exception of FREA10, and FREA50; FREB82, FREB90.

Note: Students intending to pursue their studies in French at the graduate level are advised that only the Specialist Programme qualifies them for admission to the Graduate Department of French at this University.

Minor Programme in French

Supervisor: C. Evans

Students should complete four full-course equivalents, including:

1 FREA10Y
2 FREB10Y
3 Plus two further full-course equivalent French courses at least one of which must be at the C-level, excluding FREB82, FREB90.

Joint Specialist Programme in Management and Language

See Management

FREA10Y Language Practice I

Telephone ID #: 06611063

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

The course consists of a grammar review with written and oral exercises, reading and discussion of a variety of texts representing different francophone cultures and whatever 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 Scarborough College except FREB82 and FREB90.

For students planning to specialize in French, FREA50Y is recommended as a companion course.
Exclusion: (FREB06), native or near-native proficiency in French; FRE160, FRE182
Prerequisite: OAC French or Grade 13 French or (FREA16) or equivalent.
Session: Winter Day, Winter Evening
J. Kirkness and Staff
Offered 1994/95 and 1995/96

FREA50Y *Introduction to Francophone Literature*
Telephone ID #: 06615063
A study of representative works from major periods and areas of the literature of the francophone world.

FREA50Y will introduce students to the thoughtful reading of literary texts in French. Students will be encouraged to acquire the basic vocabulary necessary to analyse literature and to develop their essay-writing skills in French. This course is recommended both for students intending to major or specialize in French as a useful background for more advanced studies and for those students interested in enhancing or retaining their reading, writing, and speaking skills in French.

The class will meet for three hours each week for lectures and discussions conducted in French.
Exclusion: FRE150, FRE240
Prerequisite: OAC French or Grade 13 French or (FREA16) or equivalent
Session: Winter Day
C. Evans
Offered 1994/95 and 1995/96

FREB08F/S Practical Translation
Telephone ID # for FREB08F: 06620833
Telephone ID # for FREB08S: 06620853
Translation practice from French to English and English to French.

Texts from fields such as literature, business, politics, law, science and technology, art, and advertising will be translated, analysed, and discussed in terms of type of language and style of expression. Class time is devoted to increasing the student's proficiency. Evaluation will be based on class participation, written and oral assignments, and an examination.
Exclusion: FRE470, 480, 481
Prerequisite: FREA10 (FREB06) or equivalent
Session: Winter Day
S. Mittler
Offered 1994/95 and 1995/96

FREB10Y Language Practice II
Telephone ID #: 06621063
A continuation of FREA10.

This course is concerned with the development of fluency, accuracy of expression, and style, through the study of grammar, composition, oral practice, readings, and language laboratory work. Enrolment in each section is limited to 25.
Exclusion: (FREB16), native proficiency in French; FRE282, 283
Prerequisite: FREA10 (FREB06) or equivalent
Session: Winter Day
F. Mugnier-Manfredi and Staff
Offered 1994/95 and 1995/96

FREB11H French Language Learning in the School System
Telephone ID #: 00621143
This course is offered by the Faculty of Education in conjunction with the Division of Humanities, Scarborough College, and is intended for students considering a career in French language teaching. It will involve a series of seminars as well as preparation for a practicum in local elementary and secondary schools. Enrolment is limited to students already admitted to the Education of Teachers in French Programme.
Prerequisite: FREA10 (FREB06) or equivalent
Session: Winter Day
A. Gagné
Offered 1994/95 and 1995/96

FREB18Y Commercial French
Telephone ID #: 06621863
The French language in a commercial or economic context.

This course is of interest to students in French, Business, Accounting, Computer Science, and Economics Majors, and to all who wish to improve their skills in preparation for entry into a specialized area of the job market. In order to provide the student with the basic elements of commercial techniques as practised primarily in the Canadian francophone business community, the programme will consist of theoretical and practical sessions. 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.

This course may not count towards a Specialist Programme in French, or the Major Programme in French Language and Literature.
Exclusion: FRE366
Prerequisite: FREA10 (FREB06), or permission of the instructor
Session: Winter Day
W. J. Bancroft
Offered 1994/95 and 1995/96

FREB25Y 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.

Topics such as the following will be covered: sound patterns and word formation in French; social and regional variations.

Students are expected to make short class presentations and write one major paper.
Exclusion: FRE272
Prerequisite: FREA10 (FREB06) or equivalent.
Session: Winter Day
J. Kirkness
Not offered 1994/95
May be offered 1995/96

FREB27F 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; France and its relations with North America, the European Community and the Third World; the main artistic and intellectual currents; the media; the educational system, etc. This course is designed to interest both specialists and non-specialists.
Exclusion: (FREB21)
Prerequisites: FREA10 (FREB06) or equivalent, or permission of instructor.
Session: Winter Day
F. Mugnier-Manfredi
Not offered 1994/95
May be offered 1995/96

FREB28S The Francophone World
Telephone ID #: 06622853
An examination of historical, political and cultural realities n the French-speaking West Indies, Europe, Africa and South-East Asia.

Topics to be discussed will include slavery, colonization, decolonization and multilinguism. Artistic and intellectual developments will be studied, based on written and audio-visual material. The course is designed to interest both specialists and non-specialists.
Exclusions: FRE252, 253
Prerequisite: FREA10 (FREB06) or equivalent, or permission of instructor.
Session: Winter Day
F. Mugnier-Manfredi
Not offered 1994/95
May be offered 1995/96

FREB48Y Theoretical and Practical Phonetics
Telephone ID #: 06624863
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. Basic textbook required: P. Léon, *Pronunciation du français standard.*
Limited enrolment per section: 20
Exclusion: FRE277
Prerequisite: FREA10 (FREB06) or equivalent.
Session: Winter Evening
C. Bertrand-Jennings and C. Evans
Offered 1994/95

FREB50F Approaches to the French Literary Text
Telephone ID #: 06625033
Concepts and techniques of literary criticism.

Students analyze selected works from the fields of fiction, drama and poetry. Emphasis is on genres rather than on literary movements or periods. Lectures and seminars are conducted in French.
Exclusion: (FREA30) (FREA02); FRE240Y
Prerequisite: FREA10 (FREB06) or equivalent
Session: Winter Day
C. Bertrand-Jennings
Not offered 1994/95
May be offered 1995/96

FREB56F Introduction to 19th-Century French Literature I
Telephone ID #: 06625633
An analysis of Romanticism in 19th-century French literature with attention to its major writers.

Introductory lectures will be devoted to exploring the origins of French Romanticism, the spread of Romanticism in Europe, as well as events and social changes which contributed to the formation of the

Romantic Movement. Works of fiction, drama and poetry by prominent authors from the first half of the 19th century will be studied. Classes will be conducted as seminar-discussions in French, supplemented by some lectures.
Exclusions: (FREB26)
Prerequisite: FREA10 (FREB06) or equivalent
Pre- or Corequisite: FREA50 (FREA30/A02) or FREB50 or permission of instructor.
Session: Winter Day
C. Bertrand-Jennings
Not offered 1994/95
May be offered 1995/96

FREB57S Introduction to 19th-century French Literature II
Telephone ID #: 06625753
A survey of the main trends and characteristics of French literary practice in the second half of the 19th-century.

Major works of fiction, drama and poetry by representative writers from the Realist, Naturalist and Symbolist movements will be studied in their own right as well as in connection with their society. Classes will be conducted as seminar-discussions in French, supplemented by some lectures.
Prerequisite: FREA10 (FREB06) or equivalent
Pre- or Corequisite: FREA50 (FREA30/A02) or FREB50 or permission of instructor
Session: Winter Day
C. Bertrand-Jennings
Not offered 1994/95
May be offered 1995/96

FREB90S Understanding Quebec and French Canada
Telephone ID #: 06629053
An attempt to explain contemporary French Canadian issues to English-speaking Canada.

Attention will focus on social, cultural and political questions in post-1960 French Canada, but we will also examine the impact of historical factors on today's issues. Materials for the course consist of documents (in print and on film) and samples of literature, art, and popular culture (songs, music, cinema). The course is offered in English and requires no prior knowledge of French.

May not be counted towards a Major or Specialist degree in French.
Exclusion: FREB22, FREB23
Session: Winter Day
L. Mignault
Not offered 1994/95
May be offered 1995/96

FREC01F Advanced Written French for General Purposes
Telephone ID #: 06630133
The purpose of this course is to improve students' ability to write effectively and elegantly in French.

Using texts written by native French speakers as models and productions of students for the development of problem-solving strategies, students familiarize themselves with the range of sentence structures and improve their choice of vocabulary (particularly verbs) in order to express their thoughts with more precision, complexity, and in a more stylish manner. Composition applications focus on description of places and persons and on narration of events.
Exclusions: (FREC10Y) (C01Y), FRE380, FRE361
Prerequisite: FREB10 or equivalent
Session: Winter Day
L. Mignault
Offered 1994/95 and 1995/96

FREC02S Advanced Written French for Professional Purposes
Telephone ID #: 06630253
A course designed for students who are preparing to use written French for specific job-related purposes: e.g., journalism, essays, and reports in fields related to social and political sciences.

Using models produced by native speakers, students seek to develop familiarity with the use of the basic styles and vocabulary appropriate for each type of writing. Attention will be given to students' individual interest.
Exclusions: (FREC10Y) (C01Y), FRE382, FRE361
Prerequisite: FREB10Y or equivalent
Session: Winter Day
L. Mignault
Offered 1994/95 and 1995/96

FREC04F Oral Communication for General Purposes
Telephone ID #: 06630433
A course designed for students who have already developed an ability to communicate orally in French and wish to improve their degree of competence and sophistication particularly for the purpose of public address.

The focus is on comprehension of authentic documents and on clarity of expression, correct delivery, ability to speak from sketchy notes and to improvise. Public inquiry, media reporting and mock trial situations are techniques used to practice the development of these skills.
Exclusions: (FREC10Y) (C01Y), FRE381, FRE361
Prerequisite: Permission of instructor (FREB17H)
Session: Winter Day
L. Mignault
Offered 1994/95 and 1995/96

FREC05S Oral Communication for Specific Purposes
Telephone ID #: 06630553
A course for students who are preparing to use oral French for specific job-related purposes: e.g., journalism and subjects related to various fields of the social and political sciences.

The focus is on comprehension of authentic documents and on clarity of expression, correct delivery, ability to speak from sketchy notes and to improvise. Public address, media reporting and mock trial situations are techniques used to practice the development of these skills.
Exclusions: (FREC10Y) (C01Y), FRE361, FRE383
Prerequisite: Permission of instructor (FREB17H).
Session: Winter Day
L. Mignault
Offered 1994/95 and 1995/96

FREC11F Teaching French as a Second Language
Telephone ID #: 06631133
A study of current theories of language teaching and learning and their application to the teaching of French as a second language.

Topics include communicative competence, traditional and innovative methods and approaches, and the development of teaching materials.

Theoretical and practical sessions are conducted in French. Students are strongly urged to take LINC26F before FREC11.
Limited enrolment: 25
Exclusion: FRE488
Prerequisite or Corequisite: One full-course from the sequence FREC01-C05 (FREC10)
Session: Winter Day
W. J. Bancroft
Not offered 1994/95
Offered 1995/96

FREC18F Translation for Business and Professional Needs
Telephone ID #: 06631833
A continuation of FREB18, devoted to the study of the French language in a commercial, professional, and technical context.

Through in-class practice in translation from French to English and English to French, students will have the opportunity to widen their knowledge of the vocabulary and structures particular to the language of business as well as to such fields as legal services, social work, health care, industrial relations, insurance, and software.

Class work is directed toward increasing the student's proficiency. Evaluation will be based on class participation, written and oral assignments, and an examination.
Exclusion: FRE480, FRE481
Prerequisite: FREB10 or FREB18 or equivalent
S. Mittler
Session: Winter Day
Not offered 1994/95
May be offered 1995/96

FREC43F The French Language in Canada
Telephone ID #: 06634333
A descriptive analysis of the French language in Canada, with special emphasis on Quebec.

Using the insight gained from FREB22F/S and FREB23F/S with regard to the historical and political foundations of the French language in this country, attention will focus on the linguistic features of the language spoken and written in Quebec and the rest of Canada.
Exclusion: (FREB43Y), (FREB43F/S); FRE472
Prerequisite: One B-level course in the group FREB10 (FREB16)-FREB81, excluding (FREB17) FREB18, FREB22F/S and FREB23F/S or permission of instructor.
Session: Winter Day
L. Mignault
Not offered 1994/95
May be offered 1995/96

FREC51F The Age of Versailles
Telephone ID #: 06635133
A study of some of the most important writers of 17th-century France.

Because of its universal themes and its accomplishments in the area of style, the Classical period is regarded as a high point of literary achievement, and its influence has been felt by every succeeding generation. The course looks at these and other aspects of 17th-century literature

through a study of such writers a La Rochefoucauld, La Fontaine and the playwrights of the period.
Exclusions: (FREB40); FRE220, FRE320
Prerequisite: One B-level course in the group FREB10-B81, except (FREB17), FREB18
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor
Session: Winter Day
J. Kirkness
Not offered 1994/95
May be offered 1995/96

FREC52S The Age of Voltaire
Telephone ID #: 06635253
Literature and ideas in 18th-century France.

In the Enlightenment, literary forms new and old join in the prerevolutionary debate over human rights and the reform of society. The course looks at such writers as Montesquieu, Rousseau and Beaumarchais, and in particular at the preeminent writer-philosopher, Voltaire. It shows how a variety of genres, including the philosophical tale, drama and the novel, serve both to entertain and to spread the new thinking in France and abroad.
Exclusion: (FREB24); FRE322
Prerequisite: One B-level course in the group B10-B81, except (FREB17), FREB18
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor.
Session: Winter Day
J. Kirkness
Not offered 1994/95
May be offered 1995/96

FREC53S The French Novel in the 17th and 18th Centuries
Telephone ID #: 06635353
The evolution of the novel as a literary form and as a social phenomenon in the 17th and 18th centuries.

Following upon an outline of the historical and literary background of the novel in the 17th and 18th centuries, a number of representative novels (such as *La Princesse de Clèves, Manon Lescaut* and *Les liaisons dangereuses*) will be studied in some detail. Classes will be conducted in French and will involve lectures and discussion.
Exclusions: (FREC23), (FREC24); FRE362, FRE363
Prerequisite: One B-level course in the group FREB10-B81, except (FREB17), FREB18
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor.
Session: Winter Day
W. J. Bancroft
Not offered 1994/95
May be offered 1995/96

FREC62S Special Topics in 20th-Century Prose Fiction
Telephone ID #: 06636253
This year the course will focus on French authors since 1960, and the varied perspectives they choose to follow in both form and content. Reading list will include: R. Queneau, *Les Fleurs bleues*, P. Modiano, *Rue des boutiques obscures*, D. Van Couwelert, *Poisson d'amour*, Michel Tournier, *La Goutte d'or*, and one other work.
Prerequisite: One B-level course in the group FREB10-B81, excluding (FREB17), FREB18.
Pre- or Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor.
Session: Winter Day
S. Mittler
Not offered 1994/95
May be offered 1995/96

FRED02F
FRED03S
FRED04F
FRED05S
FRED07S
FRED90Y 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.

Interested students should contact the Discipline Representative or Supervisor of Studies for guidance.
Exclusion: (FREC02, FREC03, FREC04, FREC05, FREC07, FREC90); FRE491, FRE492
Prerequisite: One B-level course in the group FREB10 (FREB16)-FREB81, except (FREB17), FREB18.
Session: Winter Day
Offered every year

Courses Not Offered in 1993-94

FREB22F/S The Society and Culture of French Canada I
Exclusion: FREB90; FRE210
Prerequisite: FREA10 (B06) or equivalent competence
Offered 1994/95

FREB23F/S The Society and Culture of French Canada II
Exclusion: FREB90F/S; FRE210
Prerequisite: FREA10 (B06) or equivalent competence
Offered 1994/95

FREB36F/S The Literature of French Canada I: to 1960
Prerequisite: FREA10 (FREB06) or equivalent.
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor.
Offered 1994/95

FREB37F/S The Literature of French Canada II: since 1960
Prerequisite: FREA10 (FREB06) or equivalent
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor.
Offered 1994/95

FREB51F/S The Classical Age: Comedy
Exclusion: (FREB29) (FREB41); FRE320, FRE356
Prerequisite: FREA10 (FREB06) or equivalent
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor
Offered 1994/95

FREB52F/S The Classical Age: Tragedy and Drama
Exclusion: (FREB29), FREB41; FRE320, FRE356
Prerequisite: FREA10 (B06) or equivalent
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor
Offered 1994/95

FREB60F/S The 20th-Century French Novel I: 1900-1940
Exclusion: (FREB49, FREB70); FRE367, FRE368
Prerequisite: FREA10 (B06) or equivalent
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor
Offered 1994/95

FREB61F/S The 20th-Century French Novel II: 1940 to the Present
Exclusion: (FREB49, FREB70); FRE367, FRE368
Prerequisite: FREA10 (B06) or equivalent
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor
Offered 1994/95

FREB81F/S Women's Consciousness in French Literature
Exclusion: FRE401H
Prerequisite: FREA10 (B06) or equivalent
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor
May be offered 1994/95

FREB82F/S Women and Literature in France
Exclusion: FREB50, FREB81
May be offered 1994/95

FREC09Y Comparative Stylistics
Exclusion: FTR375
Prerequisite: FREB10 and FREB08
Offered 1994/95

FREC22F/S Introduction to Medieval French Language and Literature
Exclusion: (FREC22); FRE420, FRE471
Prerequisite: One B-level course in the group FREB10-B81, except (FREB17), FREB18
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor.
Offered 1994/95

FREC30F/S French Theatre in the 20th Century
Exclusion: (FREB30, FREB31); FRE358
Prerequisite: One B-level course in the group FREB10-FREB81, except (FREB17), FREB18
May be offered 1994/95

FREC38F/S The Literature of French Canada III, Special Topics
Prerequisite: One B-level course in the group FREB10-FREB81, except (FREB17), FREB18; or permission of instructor
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor.
May be offered 1994/95

FREC42F/S General History of the French Language
Exclusion: (FREB42); FRE273
Prerequisite: One B-level course in the group FREB10-FREB81, except (FREB17), FREB18; or permission of instructor
Offered 1994/95

FREC56F/S The 19th-Century French Novel
Exclusion: (FREC26); FRE364, 365
Prerequisite: One B level course in the group FREB10-B81, except (FREB17), FREB18.
Corequisite: FREA50 (A30/A02) or FREB50 or permission of instructor.
Offered 1994/95

Geography

Discipline Representative: 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. Geography courses therefore complement other social science programmes. They are also listed as options in several College Programmes including Canadian Studies, Women's Studies, Environmental Science, and the Co-op Programmes in Administration and International Development. While the Geography Programmes have a social science emphasis, students are encouraged to take some of the physical geography courses listed under the EES designation.

Geography Programmes can be taken for either a B.A. or a B.Sc. degree depending on the courses selected. In general ,courses in human geography qualify for a B.A. and those in physical geography lead to a B.Sc.; courses which count towards a B.Sc. degree are EESB03 (GGRB03)*, EESB04 (GGRB09)*, (GGRB15)*,EESB02 (GGRB19)*, (GGRB24)*, (GGRB29)*, GGRB31,EESB05,(GGRB35)*,(GGRC05)*, (GGRC23)*, GGRC24, (GGRC25)*, EESC04, EESC05,(GGRC26)*, (GGRC27)*,EESC10, (GGRC28)*, (GGRC30)*, (GGRC32)*, (GGRC35)*, (GGRC36)*, (GGRC37)*, EESC11, (GGRC38)*, GGRC41, (GGRC42)*, GGRD03, GGRD04, GGRD05, GGRD06. In addition (GGRC01)* and GGRD01 may be used to fulfill the B.Sc. requirements by students researching in appropriate scientific areas of geography, subject to the approval of the Programme Supervisor.
*Courses shown in parentheses are courses which are no longer offered but which may still be counted for the purposes of this rule.

Specialist Programme in Geography
Supervisor: M. Bunce (287-7313)
The requirements for this Programme are twelve full-course equivalents, which must include:
1 GGRA04F/S and EESA02F/S (GGRA05F/S)
2 GGRB31F/S, or STAB22F/S or Equivalent*
3 GGRD01Y
4 At least three full-course equivalents in Geography at the C-level or D-level, other than GGRD01Y.
5 Two full-course equivalents in disciplines other than Geography to be agreed on in consultation with the Supervisor.

*NOTE GGRB31F/S will not be offered in 1993-94. There are several equivalent courses which will be accepted as satisfying this programme requirement, including STAB22F/S and the courses listed in the Calendar as Exclusions to that. The following EES courses may be counted towards the fulfilment of requirements for the Specialist Programme: EESB02F/S. EESB03F/S, EESB04F/S, EESB05F/S, EESC04F/S, EESC05F/S, EESC10F/S, EESC11F/S.

Major Programme in Geography
Supervisor: M. Bunce (287-7313)
The requirements for this Programme are seven full- course equivalents in Geography, which must include:
1 GGRA04F/S and EESA02F/S (GGRA05F/S)
2 At least two full-course equivalents in Geography at the C-level or D-level

Minor Programme in Geography
Supervisor: M. Bunce (287-7313)
The requirements for this Programme are four full-course equivalents in Geography which must include GGRA04F/S and one full-course equivalent at the C-level or D-level.

NOTE: Students registered at Scarborough College prior to the 1993-94 session may count all EES courses previously listed as GGR courses towards the fulfillment of Specialist and Major Programmes.

not minor

GGRA04F Concepts and Methods of Human Geography
Telephone ID #: 06910433
The conceptual and methodological foundations of human geography. The concepts examined will include place, location, distance and proximity; spatial scales, linkages and disparities; and the relationships between people and environments. The methods studied will include land use survey and analysis, graphic representation and interpretation of numerical data, population analysis, and the use of descriptive statistics. Teaching method: 2 hour lectures, 1 hour lab.
[redacted]
Session: Winter Day
M. Bunce

EESA02S Introduction to Physical Geography
see Environmental Science

GGRB01Y Resource Management
Telephone ID #: 06920163
The basis for understanding resource development policies and environmental management strategies. Problems of resource use and environmental management are examined generally in their global context, and specifically with reference to Canadian circumstances and policies. Issues discussed will include population growth and quality, world food problems, global energy, water resource management in Canada, and conservation strategies.
Prerequisite: GGRA04 or GGRA05
[redacted]
Session: Winter Day, Summer Evening
TBA

IDSB02S International Development Studies: Physical and Ecological Resource Management
Telephone ID #: 08120253
Introduces students to the physical and ecological bases of natural resource management, and their role in constraining development in Third World 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.
Session: Winter Day
A. Price/R. Bryan

GGRB05Y 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.
[redacted]
Prerequisite: GGRA04
Session: Winter Day
K. England

GGRB06S Planning in Canada
Telephone ID #: 06920653
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 lectures a week.
Prerequisite: [redacted]
J. Miron

GGRB13S Modern Urban Landscapes
Telephone ID #: 06921353
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. A two hour lecture and a one-hour lab each week.
Prerequisite: GGRA04
Session: Winter Day
E.C. Relph

GGRB17F 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 in urbanizing regions. 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. Field and laboratory projects will introduce students to the methodology of rural land use study, including land use surveys and mapping, farm surveys, and the use and interpretation of remote sensing information and Geographical Information Systems. Students will be expected to complete a field research project. A two-hour lecture and a one-hour lab each week.
Prerequisite: One of GGRA04, IDSB01, IDSB02
Session: Winter Day
M. Bunce

GGRB27F Location and Spatial Development
Telephone ID #: 06922733
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 pricing policies, location of a firm with mobile resources, and trade theory and regional specialization. Three hours of lectures per week.
Exclusion: GGRZ20 (JPS[illegible])
Prerequisite: ECOA02
Session: Winter Day
J. Miron

EESB02F/S Principles of Geomorphology
see Environmental Science

EESB03F/S Principles of Climatology
see Environmental Science

EESB04F/S Hydrology: Measurement, Estimation and Forecasting
see Environmental Science

EESB05F/S Introduction to Soil Science
see Environmental Science

GGRC04F Urban Residential Geography
Telephone ID#: 06930433
Micro and macro perspectives on urban residential geography are presented in this course with an emphasis on North American Cities. At the micro level, topics include the search and location behaviour of individuals and families as consumers of housing, and suppliers of labour and domestic production. At the macro level, topics include commuting, social ties, neighbourhood environments, structure and segregation, changes in the social and physical structure of neighbourhoods. 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: GGRB05 and University level half course in data analysis (e.g. STAB22).
Session: Winter Day
J. Miron

GGRC06F Women and the City
Telephone ID #: 06930633
This course will explore the reciprocal relations between gender relations and the geography of the city. The central theme of this course is that "gender" plays important (and interrelated) roles in the physical layout of cities and in the activities of the people that reside in those cities. Topics will include the nature of feminist geography, the separation of home and "work", the city as a landscape of fear, poverty and homelessness, paid employment and child-care. The course will draw on feminist geography literature from North America and Britain.
Prerequisite: GGRB05 and any B-level course in Women's Studies.
Session: Winter Day
K. England

GGRC07S Countryside Conservation
Telephone ID #: 06930753
The problems and politics of [illegible] conservation in Western Europe and North America. Particular attention will be paid to the origin of conservational and preservational attitudes to the natural 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 recreation. Field work and case studies will be an integral part of the course.
Prerequisite: GGRB01 and GGRB17
M. Bunce

GGRC13S Urban Political Geography
Telephone ID #: 06931353
A geographical approach to the politics of contemporary cities. Emphasis will be placed on North American, and especially Canadian cities, since 1945. Lectures will review recent trends in political activity, the causes of these trends and their social consequences. Topics to be discussed will include the nature and organization of the state, especially at the local level; the political powers of the property industry, of planners, of business, labour, and community based organizations; reform movements. Throughout, emphasis will be placed on the ways in which the geography of the cities and local government have shaped, and been shaped by, urban political activity.
Exclusion: GGR239, GGR339
Prerequisite: GGRB05
Session: Winter Day.
K. England

GGRC29S Problems in Modern Agricultural Land Use
Telephone ID #: 06932953
Examination of the land use problems created by rapid changes in modern agriculture. Emphasis will be placed on the impact of high technology, corporate economics and urbanization upon agricultural land use and landscapes. The course is thematic in approach and will include such topics as changes in land tenure, chemical applications in farming, agribusiness, fragmentation, land abandonment and conversion, urbanization of farmland. One two-hour seminar each week plus individual consultation.
Prerequisite: GGRB01 and GGRB17, or IDSB01 and IDSB02.
Session: Winter Day
M. Bunce

GGRC31S Development and Planning of Metropolitan Regions
Telephone ID #: 06933153
An advanced analysis of the recent growth of metropolitan regions, its causes, efficient urban scale, social goals and planning, public policy issues, as well as the tools, roles and impacts of public planning policies. Course examines insights gained from contemporary empirical research. Three hours of lectures per week.
Prerequisite: GGRB31 (or equivalent) and one of GGRB05 or JEGB27
Session: Winter Day
J. Miron

GGRC33F The Greater Toronto Area
Telephone ID #: 06933333
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
E.C. Relph

GGRC41S Current Topics in Human Geography
Telephone ID#: 06934153
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 enrolment: 30
Prerequisite: GGRA04 and one B-level full-course equivalent in Human Geography
Session: Winter Day
TBA

EESC04F/S Biogeography and Diversity
see Environmental Science

EESC05F/S Coastal Geomorphology I
see Environmental Science

EESC10S Soil Management in Temperate Regions
see Environmental Science

EESC11S Tropical Soil Management and International Development
see Environmental Science

GGRD01Y Supervised Research
Telephone ID #: 06940163
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 28, value 20 per cent of final grade; 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 by at least two members of faculty and the student may be asked to defend it at an oral examination.
Exclusion: (GGRC01)
Prerequisite: Any fifteen full-course equivalents including at least five equivalents in Geography and GGRB31 or equivalent.
Session: Winter Day
Staff

GGRD02F Environmental Philosophies
Telephone ID#: 06940233
A critical review of different attitudes and approaches to environments, with special attention to their assumptions and implications. Issues discussed will include the meaning of preservation, conservation, management and sustainable development; the forms of technological control of the environment; environmental ethics; deep ecology; environmental concerns versus social concerns; global environmental management.
Exclusion: GGRC12
Prerequisite: Any 10 full-course equivalents including at least one of GGRB01, GGRB17, IDSB01, IDSB02
Session: Winter Day
TBA

EESD03F/S Theoretical Geomorphology
see Environmental Science

EESD04F/S Sedimentary Models
see Environmental Science

EESD05F/S Hillslope Geomorphology
see Environmental Science

EESD06 F/S Climatic Change
see Environmental Science

EESD11F/S Hydrology: Physical Processes and Modelling
see Environmental Science

Courses Not Offered in 1993-94

GGRB31F/S Data Analysis in Geography: An Introduction
Exclusion: GGR270
Prerequisite: GGRA04 or GGRA05

GGRC18F/S Urban Transportation Policy
Exclusion: GGR324
Prerequisite: University-level half course in data analysis (e.g. STAB22) and one of GGRB05 or GGRB27

GGRC20F/S Issues in Rural Development
Prerequisite: One of GGRB01, GGRB17, IDSB01, IDSB02

GGRC24F/S Quantitative Research in Geography
Prerequisite: University half-course in data analysis

GGRC34F/S Landscape Interpretation
Prerequisite: GGRB05 and GGRB13

GGRD08F/S Issues in Rural Development
Exclusion: GGRC20
Prerequisite: GGRC29, or ECOC67 and POLB91 and 10 full-course equivalents

Physical Geography courses are now listed as EES

Geology

Please refer to the Environmental Science section of the Calendar for courses.

Please refer to the Physical Sciences section of the Calendar for the following programmes:

Specialist Programme in Environmental Science

Specialist Programme in Environmental Earth Science

Specialist Co-op Programme in Environmental Science

Major Programme in Environmental Science

German

Discipline Representative: H. Ohlendorf (287-7136)
The German Programmes are designed to introduce students to the language and culture of the German speaking countries. A variety of modern integrated teaching materials is used to maximize students' exposure to the four language skills

(listening, speaking, reading and writing).

Students interested in language studies are encouraged to combine the German Major Programme with another language major for a Specialist degree in Modern Languages.

The German Major Programme is also recognized as an excellent complement to studies in Fine Art, History, Humanities, Linguistics, Literature, Philosophy, and Social Sciences. German also participates in the programme Management and Language offered jointly by the Division of Humanities and the Division of Management and Economics.

The internationally recognized *Certificate for German as a Second Language* may be obtained by students chiefly interested in language competence, who have completed the following courses: GERA10Y, GERA09H, GERB20Y, GERB19H, GERC09F/S, GERC10Y, or their equivalent. This course of study may be of interest to students in the Social Sciences who are attracted to international relations.

A Workstudy Programme in the Federal Republic of Germany is available to qualified students. The Federal Republic of Germany guarantees a job for the months of June and July and allows for independent travel in August.

The German government, through the Goethe Institute, also makes available various scholarships for intensive language studies to qualified students.

Major Programme in German Language
Supervisor: H. Ohlendorf (287-7136)
The Programme consists of the following courses:

GERA10Y	Introductory German
and	
GERA09H	Language Practice I
GERB20Y	Intermediate German
and	
GERB19H	Language Practice II
GERC01F/S	The Last Hundred Years
GERC02F/S	History of the German Language
GERC03F/S	Language in a Literary Context
GERC09F/S	Language Practice III
GERC10Y	Advanced German
LINA01Y	General Linguistics (a more theory-oriented course)

Minor Programme in German Language
Supervisor: H. Ohlendorf (287-7136)
The Minor Programme requires that students take the following courses:

GERA10Y	Introductory German
GERA09H	Language Practice I
GERB20Y	Intermediate German
GERC10Y	Advanced German
and	
GERC01F/S	The Last Hundred Years

Language requirements will be waived by the Supervisor for students judged to have advanced knowledge of German. Equivalent courses will be substituted in consultation with the Supervisor. Courses in **German Literature in the Original** will continue to be available under the rubric of supervised reading.

See also the following courses in translation:

HUMB02Y	Introduction to Literature
DRAB07Y	Dramatic Literature and Political Revolution
DRAB27F	Science, Power and Hell: The Story of Dr. Faustus

GERA10Y Introductory German
Telephone ID #: 06811063
The fundamentals of the German Language.

Grammar, syntax, and vocabulary are introduced to provide a basic knowledge of the language. There are three hours per week of intensive language work. Students are also encouraged to make use of available computer learning programmes.
Exclusion: GER100, GER101
Corequisite: GERA09H
Session: Winter Day
U. Lesser-Sherman
Offered every year

GERA09H Language Practice I
Telephone ID #: 06810953
A practical complement to GERA10Y.

This course is designed to reinforce and supplement through oral practice the grammar work done in GERA10Y, as well as to expand the students' skills to communicate in German. The course will meet twice a week throughout the year. Course work can be supplemented by computer based language programmes available in the Resource Room.
Exclusion: GER100, GER101
Corequisite: GERA10Y
Session: Winter Day
U. Lesser-Sherman
Offered every year

GERB19H Language Practice II
Telephone ID #: 06821943
A practical complement to GERB20Y.

This course is designed to increase the students' vocabulary and fluency in German through supervised discussion, essay writing, and reading. The course will meet

twice a week throughout the year.
Exclusion: GER202, GER206
Prerequisite: OAC German or Grade 13 German or GERA09 and GERA10
Corequisite: GERB20
Session: Winter Day
H. Ohlendorf
Offered every year

GERB20Y Intermediate German
Telephone ID #: 06822063
Intensive language work involving a review of grammatical principles in the context of readings, oral exercises and written composition.

Mimeographed material on current events may be introduced from time to time to spark class discussion.
Exclusion: GER206, GER210
Prerequisite: OAC German or Grade 13 German or GERA09 and GERA10
Corequisite: GERB19
Session: Winter Day
H. Ohlendorf
Offered every year

GERC01F The Last Hundred Years
Telephone ID #: 06830133
In this course, the student is introduced to the most pertinent aspects of Germany's recent history and culture beginning with the end of WWI and taking into account the effects of Nazism, WWII, and the division of Germany. The course also attempts to understand the forces and pressures which brought about the unification of Germany. In addition to the material provided through lectures and text book readings, there will be readings and discussions of relevant contemporary literature and films.
The course is taught in English.
Exclusion: (GERB24F/S)
Session: Winter Day
U. Lesser-Sherman

GERC02S History of the German Language
Telephone ID #: 06830253
A seminar on the history of the German language from the Middle ages to the present.

Working with representative texts from the various historical periods, students will come to a better understanding of the modalities and structures of contemporary German.
Exclusion: (GERB33S)
Prerequisites: OAC German or Grade 13 German or GERA09 and GERA10
Session: Winter Day
U. Lesser-Sherman
Not offered 1994/95
Offered 1995/96

GERC09F Language Practice III
Telephone ID #: 06830933
A course complementary to GERC10Y.

This course will continue the work done in GERB19H. The communicative skills of the students will be further enhanced by a variety of exercises in oral and written composition around current topics of interest. Much emphasis will be given to the needs of individual students and their aspirations towards bilinguality.
Exclusion: GER310, GER311
Corequisite: GERC10Y
Session: Winter Day
H. Wittmann
Offered every year

GERC10Y Advanced German
Telephone ID #: 06831063
A continuation of language work done in GERB20.

Language exercises will be centered on different texts. A review of grammar and syntax on an advanced level will reinforce the students' ability to read, speak, and translate. Material on current events will be used as much as possible. The course intends to further the students' analytic ability to write and converse in German.
Exclusion: (GERD01Y); GER310, GER311
Prerequisite: GERB19H and GERB20Y
Session: Winter Day.
U. Lesser-Shermann
Offered every year

GERC11S German in Commerce and Management
Telephone ID #: 06831153
An introduction to business German.

Building on grammar and vocabulary knowledge already acquired, the course aims to enable students to correspond and converse in basic business situations.
Exclusion: GER270
Prerequisite: GERB19 and GERB20 or equivalent
Session: Winter Day
U. Lesser-Shermann
Not offered 1994/95
Offered 1995/96

GERD10, 11, 12F
GERD13, 14, 15S
GERD16Y Supervised Reading
Courses are designed to give students an opportunity to study German Literature in the original and to follow up on ideas generated during the more formal courses of instruction. Topics and/or projects are formulated in close consultation between student and supervisor chosen by student.
Exclusion: (GERC30F, GERC33F, GERC43F GERC36S, GERC40S, and GERC46S)
Prerequisite: GERB19 and GERB20
Session: Winter Day
Staff

Courses Not Offered in 1993-94

GERC03F/S Language in Literary Context
Exclusions: GER206, GER323
Prerequisite: GERB19H and GERB20Y
Offered 1994/95

Greek

The following courses are offered in modern Greek:

GRKB13F	Intermediate Modern Greek
GRKB14S	Advanced Modern Greek
GRKC22Y	Images of Modern Greece: 1930 to the Present
GRKC30-34F	
GRKC35-39S	Supervised Reading
GRKC40Y	

For further information see under Classical Studies.
Courses in *Classical Greek* are no longer offered on the Scarborough Campus

Greek and Roman History

GRHB04Y The Roman World

For further information see under Classical Studies.

History

Discipline Representative: A. N. Sheps (287-7133)
The study of history is intended to enhance our understanding of human society by examining the experiences of particular peoples and their societies in the past. Its findings depend upon the precise evaluation of specific evidence. History's concerns and goals are humanistic; its methods draw from all forms of scholarly endeavour. History courses, therefore, can play a part in a number of interdisciplinary programmes and can serve as an adjunct to courses in Politics, Philosophy, Literature, Economics, and Sociology. History can also be usefully combined with language study.

The History curriculum combines a variety of approaches and teaching in order to satisfy a number of purposes. HISA01Y provides both a general introduction to the study of history at the university level, and the preparation for further studies in European history. HISA02S is a general interest course. A series of survey courses (HISB02-09) provides a comprehensive foundation of knowledge in their particular areas, and also serves as preparation for more detailed and advanced studies. In upper-level courses students investigate more specific areas, periods, or problems. D-series courses are conducted as seminars. In them students make close and thorough studies of particular questions and present their findings in discussions and major essays. There are sequences of courses at all levels in the following areas: Medieval European, Modern European, British, American, Canadian, Russian, and Ancient Greek and Roman.

Specialist Programme in History
Supervisor: W. M. Dick (287-7144)

1 Number of Courses
Students must complete ten full-course equivalents in History (HIS or GRH). These ten must include HISA01Y and five upper-level full-course equivalents (C/D-level courses on the Scarborough Campus, 300/400-level courses on the St. George Campus). At least one of the five must be a D/400-level course. In addition, students must complete two full-course equivalents in disciplines other than History. Students are encouraged to follow a sequence of language courses in fulfillment of this requirement.

2 Pre-1815 Courses
Of the ten at least two full-course equivalents must deal with the period prior to 1815 (all GRH courses and as indicated in the HIS course descriptions).

3 Areas of Study
Students are also required to take courses in at least three different areas as indicated in the course descriptions. Among the five upper-level full-course equivalents at least two courses must be within one area (one and one-half full-

course equivalents may meet this requirement).

Major Programme in History
Supervisor: W. M. Dick (287-7144)

1 Number of Courses
Students must complete seven full-course equivalents in History (HIS or GRH). These seven must include HISA01Y and three upper-level courses(C/D-level courses on the Scarborough Campus, 300/400-level courses on the St. George Campus).

2 Pre-1815 Course
Of the seven at least one full-course equivalent must deal with the period prior to 1815 (All GRH courses and as indicated in the HIS course descriptions).

3 Areas of Study
Students are also required to take courses in at least two different areas as indicated in the course descriptions.

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.

HISA01Y The European World: An Introduction to History
Telephone ID #: 07510163
A survey of European history from the Middle Ages to the present.

This course examines the most prominent changes in social and economic organization, in thought, and in politics, as Europe developed from a feudal and agrarian to a modern and industrial order. The teaching method is based on lectures and tutorials. A set of readings from primary and secondary sources will be assigned, but further reading by the student is essential.
Exclusion: HIS105, HIS109
0.5 Pre-1815 credit
European Area
Session: Winter Day
J. Pearl, M. Eksteins
Offered 1994/95 and 1995/96

HISB02Y Britain from the Eighteenth Century to the Present
Telephone ID #: 07520263

An examination of the political, social, economic, and religious forces which transformed an aristocratic society into an industrial power, and of the reasons 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 ideology of the Enlightenment into one committed to that of evangelical humanitarianism. It will also consider why, in the twentieth century, the British abandoned their imperial role and concentrated on the establishment of a welfare state. Two lectures per week.
Exclusion: HIS239
British Area
Session: Winter Day
F. Iacovetta
Offered 1994/95 and 1995/96

HISB03Y History of the United States
Telephone ID #: 07520363
Major themes from the Revolution to the present.

The course will focus on such questions as independence, political organization, political parties, territorial expansion, nationalism and sectionalism, reform movements, the slavery and civil rights question, the response to industrialization, progressivism, and the United States as a world power. Two lectures per week.
Exclusion: HIS271
American Area
Session: Winter Day
A. N. Sheps, W. M. Dick
Offered 1994/95 and 1995/96

HISB04Y Introduction to Canadian History
Telephone ID #: 07520463
An introduction to the history of Canada from the first European contacts to the present.

Topics studied include: exploration and settlement; the institutions and life of New France; the British Conquest and its results; the impact of the American Revolution on British North America; development of the British colonies in North America; the confederation movement; the political, economic, social, and cultural history of the new nation-state established in 1867. Two hours of lectures per week.
Exclusion: HIS260, 261, 262, 263
Canadian Area
Session: Winter Day, Summer Evening
F. Iacovetta, I. R. Robertson
Offered 1994/95 and 1995/96

HISB06Y Europe in the Middle Ages
Telephone ID #: 07520663
A chronological survey of economic, political, religious, and social developments in Western Europe (including Britain) from the late Roman period to the fifteenth century.

The object of this course is to familiarize students with the foundations of Western society as they evolved in conjunction with the early settlement, colonization, and subsequent expansion of Europe. Particular attention is paid: (i) to the peculiar circumstances which determined national boundaries and which led to the divisions and conflicts of the modern world, and (ii) to the origin and development of our own religious, legal, educational and political institutions. Readings are from P. Brown, *The World of Late Antiquity;* G. Duby, *Rural Economy and Country Life in the Medieval West*; D. Hay, *The Medieval Centuries*; R. W. Southern, *Western Society and the Church in the Middle Ages*; and others. Two hours of lectures per week.
Exclusion: HIS220
Pre-1815 credit
Medieval Area
Session: Winter Day
TBA
Offered 1994/95 and 1995/96

HISC10Y The Sexes Since 1350
Telephone ID #: 07531063
An explanation of changing definitions of femininity and masculinity from the Renaissance to the recent past.

Topics will include: changes in expectations for men and women in their domestic, parental, and public roles (with the latter including education, employment, politics, and war); relations between the sexes; feminism and anti-feminism. The focus will be on the British Isles, Western Europe, and Canada, and on the nineteenth and twentieth centuries. Lecture and discussion: three hours.
Exclusion: (HISB10) HIS308
Prerequisite: One of HISA01, HISB02, HISB03, HISB04, or WSTA01 (JHSA01)
Session: Winter Day
L. J. Abray
Offered 1994/95 and 1995/96

HISC16Y Modern France 1750 to the Present
Telephone ID #: 07531663
An exploration of the transition from agricultural monarchy to industrial republic.

Topics will include the revolutionary tradition, the persistence of social conflict, the French sense of world mission, cultural history, the present stalemate between Left and Right, parallels and contrasts to the Canadian experiences of nationalism, regionalism, and modernization. Two lecture hours plus tutorial per week.
Exclusion: (HISB16)
Prerequisite: HISA01 or permission of instructor.
J. Pearl
Session: Winter Day
Not offered 1994/95
Offered 1995/96

HISC18Y Europe in the Enlightenment, 1700-1789
Telephone ID #: 07531863
An examination of the ideals of the Enlightenment against the background of the social and political reality of Europe in the eighteenth century.

Emphasis will be placed on the incongruity of theory and practice in the writings and policies of the enlightened despots. In the first term the course will focus on the ideas of the Enlightenment and the social, economic, and intellectual milieu which spawned them. In the second term the attempts of the so-called enlightened despots to apply Enlightenment ideas to the life of their states will be examined. Lectures and discussion.
Exclusion: (HISB18) HIS244
Prerequisite: HISA01
Pre-1815 credit
European Area
Session: Summer Evening
E. W. Dowler
Offered 1994/95 and 1995/96

HISC23Y Tudor and Stuart England
Telephone ID #: 07532363
England from the end of the Wars of the Roses to the Glorious Revolution, 1485-1688.

The course gives an overview of political, economic, social, and cultural patterns. Special attention will be given to four themes: the powers and personalities of the rulers; Parliament and the rule of law; the great religious crisis and its spillover into civil war; the cultural heritage. Two lecture hours and one tutorial per week.
Exclusion: (HISB23) HIS238
Prerequisite: Any B-level full-course equivalent
Pre-1815 credit
British Area
Session: Winter Evening
L. J. Abray
Offered 1994/95 and 1995/96

HISC31S Slavery in the American South
Telephone ID #: 07533153
An examination of Southern society and slavery from the colonial period to the Civil War. Topics will include the origins and growth of slavery and the plantation, the economics of slavery, race relations, daily life under slavery and Southern political and social structure and ideas.
Exclusion: (HISB31)
Prerequisite: HISB03
American Area
Session: Winter Day
A. Sheps
Not offered 1994/95
Offered 1995/96

HISC35Y Twentieth-Century America
Telephone ID #: 07533563
A topical study of the United States since the turn of the century.

A traditionally rural culture of individual opportunity and national isolationism faces the problems created by urbanization, ethnicity, industrialization, and world power. The tensions created by the appearance of large-scale organization, by the expansion of governmental power, by demands for social justice, and by the changing role of the U.S. in world affairs are the themes of this course. One two-hour session and one tutorial per week.
Exclusion: (HISB35) HIS372
Prerequisite: HISB03
American Area
Session: Winter Day
W. M. Dick
Not offered 1994/95
Offered 1995/96

HISC45S Immigrants and Race Relations in Canadian History
Telephone ID #: 07534553
The history of immigrants, immigration policy, and race relations in Canada from the European-Native contact period to the post-World War II era. Organized partly chronologically and partly by theme, the lectures and reading material will introduce students both to the perspectives and methodologies of the field and to the diversity of the ethnic/racial experience in Canada. Immigrants' lives as pioneer farmers, male sojourners, industrial workers, domestics, entrepreneurs, radicals, and as members of families are considered. The course highlights the experience of such groups as Canada's first peoples, the famine Irish, West Coast Asians, continental Europeans, and American and West Indian Blacks.
Prerequisite: HISB04
Session: Winter Day
F. Iacovetta
Not offered 1994/95
Offered 1995/96

HISC46Y Atlantic Canada
Telephone ID #: 07534663
An examination of the Maritime provinces and Newfoundland from the first European contacts to Confederation in each province.

Subjects to be investigated include: native peoples and the impact of European contact; French regime and the development of a distinctive Acadian people; the dispersal of the Acadians; British settlement; responses to the American Revolution; the Loyalist impact; colonial economies and social structures; literary and intellectual developments; struggles for responsible government, and its eventual loss in Newfoundland; religious and ethnic tensions; fishermen's movements in Newfoundland; the coming of Confederation. One two-hour lecture per week, and the class will be divided into two tutorial groups, each meeting once every two weeks. Written work will include two research papers.
Exclusion: (HISB46) HIS468
Prerequisite: HISB04
0.5 Pre-1815 credit
Canadian Area
Session: Winter Day
I. R. Robertson
Offered 1994/95 and 1995/96

HISC47Y The Canadian Left, 1867 to the Present
Telephone ID #; 07534763
An investigation of farmer, labour, and socialist movements since Confederation, their roots in the changing social structure, and their political manifestations.

The emphasis will be on the twentieth century, and attempts will be made to assess the significance of the international affiliations and/or origins of the various movements, and to account for the unique character of the Canadian Left. In broad terms, the course objectives are (i) to encourage the study of social classes who have been excluded from the exercise of power in Canada, and to examine the ways in which they have organized to protect their interests; and (ii) to explore the relationship between social change and popular, reform, radical, and socialist movements. One two-hour lecture per week, and the class will be divided into two tutorial groups, each meeting once every two weeks throughout the year. Written work will include two research papers.
Exclusion: (HISB47)
Prerequisite: HISB04
Canadian Area
Session: Winter Day
I. R. Robertson
Offered 1994/95
Not offered 1995/96

HISC84F Popular Culture in Early Modern Europe
Telephone ID #: 07538433
An investigation of mentalities and society in Europe from the fifteenth to the eighteenth century. This course will explore many areas of popular society, examining how people lived, and especially what they believed in. We will look at popular religion, folklore, and witchcraft, in order to observe the interaction of the world views of different social strata. Two hours of lecture and one tutorial per week.
Exclusion: (HISB14), (HISC14)
Prerequisite: HISA01
0.5 Pre-1815 credit
European Area
Session: Winter Day
J. L. Pearl
Not offered 1994/95
Offered 1995/96

HISC87Y Germany in the Nineteenth and Twentieth Centuries
Telephone ID #: 07538763
A thematic treatment of German history from the end of the Holy Roman Empire to the present.

The course will concentrate on social, economic, and cultural interpretations of Germany's political experience.

Two consecutive hours of lectures and one hour of tutorial per week. A set of readings from primary and secondary sources will be assigned, but extensive further reading is essential.
Exclusion: (HISB17) HIS317
Prerequisite: HISA01
European Area
Session: Winter Evening
M. Eksteins
Offered 1994/95
Not offered 1995/96

HISD01F
HISD02S
HISD03Y Independent Studies
A directed reading course for students in their final year of undergraduate study who have demonstrated a high level of academic maturity and competence. Qualified students will have an opportunity to investigate an historical field which is of common interest to both student and supervisor and which is not available for study otherwise. Candidates must find a willing supervisor and must submit a written application before the dates given below. Students meet regularly with the supervisor to discuss progress in their investigations and complete a 7,500-10,000 word paper for a term course and a 15,000-20,000 word paper for a year course.
Exclusions: (HISC01/02/03) HIS497, HIS498, HIS499
Prerequisite: At least one B-level full-course equivalent in History; permission of instructor to be obtained in the previous term, by 15 April for HISD01(HISC01) and HISD03(HISC03) and by 1 December for HISD02(HISC02). See History Supervisor for detailed application procedures.
Session: Winter Day
The History Faculty

HISD10S History of Feminism since the Eighteenth Century
Telephone ID #; 07541033
The ideas and careers of women and men who challenged the roles assigned to women from the French Revolution to the present.

The campaign for equality for women is one of the longest struggles against discrimination in western history. After industrialization feminists waged a broadening crusade for economic, educational, civil, and political rights. These campaigns, their social contexts, and the ideas of the antifeminists will be studied through examination of the feminists' own writings and of modern scholarly interpretations. Attention will also be paid to comparisons between historical and contemporary feminisms and between feminism and other campaigns against discrimination.
Prerequisite: HISC10Y
British/European Areas
Session: Winter Day
L. J. Abray
Offered 1994/95 and 1995/96

HISD15Y The Making of Modern Society
Telephone ID #: 07541563
A seminar in the international history of "ordinary people" from the late eighteenth century to the early twentieth century.

The course discusses how politics, population pressure, and industrialization altered pre-industrial society, how early forms of social protest changed into mass organizations, how revolutionary ideas affected ordinary people, and how governments and "governing classes" responded to pressures from below.

The course provides the opportunity for students to re-examine, on a comparative basis, knowledge gained in other courses. Two-hour seminar. Limited enrolment: 15.
Exclusions: (HISB15) HISC15
Prerequisites: HISA01 and two other courses in post-1815 history, either European or North American.
American/British/European Areas
Session: Winter Day
W. M. Dick
Not offered 1994/95
Offered 1995/96

HISD17Y European Society and Culture in the Twentieth Century
Telephone ID #: 07541763
An investigation of the impact of war, technology, economic crisis, and totalitarianism on the social condition and mind of Europeans.
Two-hour seminar. Limited enrolment: 15.
Exclusion: (HISC17) HIS318, HIS412
Prerequisite: HISA01 and one B- or C-level course in History
European Area
Session: Winter Day
M. Eksteins
Offered 1994/95
Not offered 1995/96

HISD32Y Colonial and Revolutionary America and the British Empire, 1607-1787
Telephone ID #: 07543263
An examination of the origins of American society and institutions in the seventeenth century and their development in the eighteenth century, the origins, course and effect of the American Revolution and the Constitution and their relation to Western political thought, and the impact of the Revolution on British North America and Britain.
A two-hour weekly seminar, based on suggested readings and class discussion.
Exclusion: HISD34F/S, HIS470
Prerequisite: Any one of HISB02, HISB03, HISB04 or HISC18 (HISB18)
Pre-1815 credit
American/British Areas
Session: Winter Evening
A. N. Sheps
Offered 1994/95 and 1995/96

HISD62Y The Crusades
Telephone ID #: 07546263
An examination of the Crusades of the eleventh through fourteenth centuries. This seminar will consider the Crusades as a continuation of Christianity's centuries-old struggle with paganism, as a form of colonial expansion, and as a papal weapon against heresy and political dissension within christendom. The movement will be compared and contrasted with the foundation and activities of the military orders, particularly the Hospitallers, Templars, Teutonic Knights, and associated orders in Spain and northeastern Europe. During the first semester students will read severally from the most significant scholars in the field and, in class, compare and contrast the wide variety of viewpoints and interpretations which have arisen since the completion of Gibbon's Decline and Fall of the Roman Empire in 1781. The second semester will be devoted to a similar reading (in translation) and critical analysis of original Western European, Byzantine, Arabic, and Jewish chronicles of the crusading movement. Term papers will concentrate on the careful study of a secondary work and a source not covered in class. Bibliography available from Prof. Michael Gervers.
Exclusion: (HISC62)
Prerequisite: HISB06
Pre-1815 credit
Medieval Area
M. Gervers
Session: Winter Day
Offered 1994/95 and 1995/96

Courses in Classical Studies (see Classical Studies for full course descriptions):

GRHB04Y The Roman World
Pre-1815 credit
Ancient Greek and Roman
Session: Winter Day
J. Corbett
Not offered 1994/95

Courses Not Offered in 1993-94

HISA02F/S The Twentieth-Century World
Offered 1994/95
Not offered 1995/96

HISB07Y Russia from the Thirteenth Century to the Present
Exclusion: HIS250
0.5 Pre-1815 credit Russian Area
Offered 1994/95 and 1995/96

HISB08F/S The Sixteenth Century Religious Reformations
Exclusion: (HISB13, HISC83Y)
Prerequisite: HISA01Y
0.5 Pre-1815 credit European Area
Offered 1994/95
Not offered 1995/96

HISC11Y France from Reformation to Revolution 1500-1789
Exclusion: (HISB11) HIS349
Prerequisite: HISA01Y
Pre-1815 credit
European Area
Offered 1994/95
Not offered 1995/96

HISC33F/S Society and Politics in the United States, 1790-1850
Prerequisite: HISB03
American Area
Offered 1994/95
Not offered 1995/96

HISC49F/S Canada Between the World Wars
Prerequisite: HISB04
Canadian Area
Not offered 1994/95
Offered 1995/96

HISC78F/S Social History of Imperial Russia, 1700-1900
Prerequisite: HISB07
Russian Area
Not offered 1994/95
Offered 1995/96

HISC79F/S Social History of Revolutionary Russia, 1900 to the Present
Prerequisite: HISB07Y
Russian Area
Not offered 1994/95 and 1995/96

HISC86F/S Revolutionary France, 1780-1800
Prerequisite: HISA01Y
0.5 Pre-1815 credit
European Area
Offered 1994/95
Not offered 1995/96

HISD11F/S Crime and Punishment in Early Modern Europe 1500-1800
Prerequisite: HISA01 and one B or C level course in history.
0.5 Pre-1815 credit
British/European Areas
Offered 1994/95
Not offered 1995/96

HISD34F/S Revolutionary America, 1760-1790
Exclusion: (HISC34) HISD32
Prerequisite: Any one of HISB02 or HISB03 or HISB04
0.5 Pre-1815 credit
American Area
Not offered 1994/95 and 1995/96

HISD46F/S Selected Topics in Canadian Women's History
Prerequisites: Any course in Canadian history or HISC10Y or HISD10F/S
Canadian Area
Offered 1994/95
Not offered 1995/96

HISD78Y The Russian Intelligentsia
Exclusion: (HISC78) HIS431, HIS455
Prerequisite: HISB07 or RUSA01
Russian Area
Offered 1994/95
Not offered 1995/96

The History of Ideas

The Major Programme in The History of Ideas is no longer offered, but students currently enrolled in it will be allowed to complete the programme.

Humanities

Discipline Representative:
C.V. Ponomareff (287-7166)

"The study of culture is largely the study of continuities, and it is this sense of continuity rather than of uncritical acceptance we hope to impart to our students. We want them to acquire a habit of mind that looks for these continuities not only within the confines of their special field, but in all the manifestations of culture that surround them."
E.H. Gombrich

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

As one of the College's four academic Divisions, Humanities comprises twelve distinct disciplines, such as Classical Studies, English, History, and the Modern 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, a number of courses which fall outside the purview of the traditional disciplines. These are concerned mainly with culture, civilization, and literature; and all have readings and instruction 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.

Within this context the Division offers a more general programme than is found in many of the traditional disciplines: The College Programme in Humanities. The requirements for this Programme are set out below, followed by a list of the HUM courses offered this year, several of which may form part of this Programme.

A number of individual disciplines also offer courses (in English) in the literature or culture of particular countries. These are relevant to the College Programme in the Humanities but are open equally to all interested students. They are listed after the HUM courses.

College Programme in the Humanities

Supervisor: W.C. Graham (287-7149)

This programme offers what is often called a 'Liberal Arts' education. It aims to help students to develop their critical skills and to introduce them to a range of different intellectual approaches, so that they may use these tools in the study of some of the cultural achievements of humankind. Though European culture plays a large role in the programme, students are encouraged to look beyond it to other world cultures. The course structure outlined below is a framework; it is for the student, in consultation with the supervisor, to work out an appropriate content.

Nine full-course equivalents are required, as follows:

1 HUMA01Y
or
HUMA03Y
2 PHLA01Y
3 HISA01Y
4 One full-course equivalent in the Arts: DRA, FAR, MUS
5 One full-course equivalent in language, literature or linguistics: CLA, DRA, ENG, FRE, GER, GRK, HUM, ITA, LAT, LIN, RUS, SPA
6 One full-course equivalent from: ANTB05, ANTB21, ANTB55, ANTC06, ENGB20, ENGB21, IDSB01, HISC45, HUMC14, MUSA12, MUSB14, POLB91, SOCB20, WSTC10
7 Two and one-half full-course equivalents in Humanities subjects, at least two of which must be at C- or D- level focusing on one area or theme. (For the purposes of this Programme Mathematics is also considered to be a Humanities subject.) Choice of courses must be approved by the Supervisor.
8 HUMC10H

NOTES:

a) A course taken to satisfy one area requirement may not be used to satisfy another area requirement.
b) COGB01, a course in MAT or AST may be used to replace one of the requirements 2, 3, 4, or 5 above.

Specialist Programme in the Humanities

The Specialist Programme in the Humanities is no longer offered, but students currently enrolled in it will be allowed to complete the programme.

HUMA01Y Prologue*

Telephone ID #: 07810163

Twenty books of central importance in Western civilization.

A comprehensive examination will be given at the completion of each subset of ten books. There is a one-hour tutorial 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 leaders will present aspects of each work through lectures or other media. Fall Term: *The Bible* (selections); Homer, *The Odyssey*; Sophocles, *Oedipus Rex*; Herodotus, *Histories*; Plato, *The Last Days of Socrates*; Vergil, *Aeneid;* Ovid, *Metamorphoses*; Augustine, *Confessions*; Dante, *Inferno*; Gottfried von Strassburg, *Tristan*. Spring Term: Boccaccio, *Decameron*; Machiavelli, *The Prince*; Rabelais, *Gargantua and Pantagruel*; Voltaire, *Candide*; Goethe, *Faust*; Marx, *Communist Manifesto*; Darwin, *Origin of Species;* Dostoevsky, *Notes from Underground;* Nietzsche, *Thus Spoke Zarathustra*; Freud, *Interpretation of Dreams*.

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, ENG104
Session: Winter Day
Co-ordinator: W. C. Graham,

HUMA02Y Composition: An Introduction to Expository Writing

Telephone ID #: 07810263

A university-level course for students who wish to improve their writing.

This is not a remedial course, nor a course in creative writing. It presumes a mastery of basic writing skills. It teaches the organization of arguments, effective sentence structure, and control of tone and diction, through the study of good prose and regular writing assignments. Lectures, discussions of prose specimens, and "workshop" sessions may be supplemented by one-on-one tutorial sessions and by computer-assisted instruction.

A diagnostic test at the beginning of classes will govern admission. Because much of the instruction is of an individual nature, section enrolment is strictly limited and not all students can be accommodated. Enrolment limit: three sections of thirty each. Preference will be given to students in programmes which require it and to new first year students.
Exclusion: CLA105
Session: Winter Day, Winter Evening, Summer Evening
TBA

HUMB02Y Introduction to Literature

Telephone ID #: 07820263

An introduction to the understanding and enjoyment of literature through the reading of novels, short stories, plays, and poems drawn from literatures of various countries.

The course will be taught jointly by faculty from German and Spanish, and will feature guest lectures from such disciplines as Classics, English, French, Fine Arts, Music, History, Philosophy and Russian. All readings will be in translation.
Exclusion: (LITA01)
Session: Winter Day
H. Wittmann and P. Léon

HUMB06S Russian Short Fiction of the 19th and 20th Centuries

Telephone ID #: 07820653

A study of significant themes in Russian literature in the 19th and 20th centuries.

The course will deal with themes such as the "superfluous man", the Romantic hero and the anti-hero, love, death, and the dehumanization of character.

Texts will be selected in the light of *one* of the themes above. The two anthologies used at present are Carl R. Proffer, ed., *From Karamzin to Bunin. An Anthology of Russian Short Stories* and D. Richards, ed., *The Penguin Book of Russian Short Stories.*
Exclusion: (LITB17, HUMB11), SLA318H, SLA319H
Prerequisite: HUMB02Y (LITA01) or ENGA11Y (ENGA01) or FREA50Y (B60Y) or one course in literature.
Session: Winter Day
C. V. Ponomareff
Offered 1994/95

HUMB07F Russian Culture

Telephone ID #: 07820733

An introduction to Russian Culture from the tenth century to the present.

The course covers aspects of Russian Culture from Religion, Social Anthropology, History, Language, Literature, Music, and the Arts. Films and slides will be part of the presentation. No knowledge of Russian language required. The course makes use of invited speakers (two-hour session per week); tutorials follow each presentation (1 hour per week).
Exclusion: (RUSA01)
Session: Winter Day
Co-ordinator: C.V. Ponomareff

HUMB19F Beyond Consciousness

Telephone ID #: 07821933

An examination of the limits of consciousness from the point of view of various disciplines in the Humanities. The specific content will vary but will focus on one of the following: communication, religion and philosophy, myth-making and poetry.

In 1993-94, suggestion and the unconscious will be studied insofar as they relate to the educational process and emphasis will be placed on yoga, music therapy, East-European and Western work in memory training, and communication theory.

Bibliography: A detailed bibliography for this course will be provided on the first day of class. Students interested in taking the course might wish to consult the following: Brown, *New Mind, New Body*; Eliade, *Yoga: Immortality and Freedom*; and Schroeder, *Psychic Discoveries Behind the Iron Curtain* and *Superlearning, Problems of Suggestology*.
Prerequisite: At least one full-course equivalent in either Psychology or Philosophy or English or another literature.
Session: Winter Day
W. J. Bancroft

HUMB31S First Nations Cultures in North America

Telephone ID #: 07823153

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. The intention of this course is to discuss aspects of various First Nations cultures in relation to their contemporary cultural productions. These could include the works of Thompson Highway and performance artist Rebecca Belmore along with discussions of contemporary pexhibitions like "Fluffs and

Feathers" at the ROM. The idea of the course is to place traditionalism in relation to contemporary issues.
Session: Winter Day
TBA
Not offered 1994/95

HUMB32S Dance in a Multicultural Society
Telephone ID #: 07823253
An introduction to dance theory and practice.

This course, using dance, will investigate the cultural diversity of Canada. The first four weeks of the course will give a theoretical framework drawing heavily from anthropology and sociology. The final weeks explore in detail dance forms from a number of areas of the world. Dances will be examined both as manifested in their countries of origin and as practiced in North America. Selection of dance forms will depend partly on students' interests. The course will include at least two presentations by guest artists.
Session: Summer Evening
TBA

HUMB45S The Spanish Civil War: Fact to Fiction
Telephone ID #: 07824553
An exploration of the impact of the Spanish Civil war, 1936-39, on the literary imagination within and outside Spain.

This is not a course on the history of the Spanish Civil War but one in which a brief examination of its origins, progress, and aftermath will lead to analysis and discussion of the varying modes of artistic response (narrative, dramatic, lyrical, documentary) to the military, political, and social realities of the conflict. Authors to be considered will probably include: Ayala, Hemingway, Malraux, Orwell, Sender, Spender *et al.*

The texts will be read and the course conducted in English in a lecture-tutorial format.
Exclusion: (LITB32)
Prerequisite: (LITA01) or (ENGA01) ENGA11 or FREA50Y (B60Y) or one full-course equivalent in literature.
Session: Winter Day
R. Skyrme

HUMB46S The Individual and the Totalitarian State
Telephone ID #: 07824653
An exploration of a crucial experience in our century as reflected in modern fiction.

The course will explore what is at stake in this confrontation, with special emphasis on the philosophy behind totalitarianism, its scope and variety of forms. The novels to be studied will be taken from Russian, German, French, English, and American fiction, and will be read in English.
Session: Winter Day
C.V. Ponomareff

HUMB70Y Introduction to Cinema
Telephone ID #: 07827063
An introduction to the vocabulary of film criticism, major aesthetic approaches, and general history (silent and sound). Tutorials start the first week of classes.
Exclusion: INI112, NEW112
Session: Winter Day
M. Q. Schonberg

HUMC10S 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 undertakes an individual project and gives a report on it.

Topics for the seminars should be chosen in consultation with the Co-ordinator. They should build upon work taken in other courses, and should attempt to relate material from two or more disciplines.
Exclusion: HUMB15 (HUMB10)
Prerequisite: Any ten full-course equivalents.
Session: Winter Day
Co-ordinator: W. C. Graham
Offered 1994/95

HUMC11H Arts Seminar
Telephone ID #: 07831143
A seminar/performance course combining at least two of: Fine Art Studio, Fine Art History, Drama, Creative Writing and Music.

Students will bring a proposal for a project to the supervisor early in the fall term and develop their proposals through the term. They will present their seminar/performance in the spring term. The form of presentation will depend upon the development of the proposal and the disciplines involved.
Prerequisite: at least 10 full-course equivalents in the Arts Programme.
Session: Winter Day
Co-ordinator: J. Hoogstraten
Offered 1994/95 and 1995/96

HUMC14Y Topics in Latin American Culture and Literature
Telephone ID #: 07831463
A study of the political, social, cultural, and literary evolution of Latin America through selected topics such as: Pre-Columbian America, myths and religious practices; the Spanish conquest, construction or destruction?; the Mexican and Cuban revolutions, a study in contrasts; contemporary Latin American fiction, themes and concerns; and the present day political scene.

No knowledge of the Spanish language is required. One two-hour lecture/discussion session per week.
Tutorials to be arranged.
Exclusion: SPAB38 (HUMB14)
Session: Winter Day
P. León

HUMC53S Beyond Nihilism: Visions of Renewal
Telephone ID #: 07835353
A study of the writings of Thomas Mann, Albert Camus, and Vladimir Nabokov.

The course explores these authors as they transmute their ideas into art, the essay into fiction, and examines their respective visions that affirm and justify human existence, be it in the face of death, inhumanity, or the Absurd. The following texts will be read: Thomas Mann's *Goethe and Tolstoy* and the *Magic Mountain*; Albert Camus' *The Myth of Sisyphus* and *The Plague*; and Vladimir Nabokov's, *Speak, Memory, Pnin*, and *Pale Fire*.
Lecture and tutorial, three hours a week.
Exclusion: (LITB51)
Prerequisite: HUMB02Y (LITA01) or (ENGA01) ENGA11 or FREA50Y (B60Y) or one full-course equivalent in literature.
Session: Winter Day
C.V. Ponomareff

HUMD91F
HUMD92S
HUMD93Y Supervised Readings
Independent study of an advanced and intensive kind, under the direction of a faculty member. The material studied should bear some significant relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in other courses.

The student should submit to the Supervisor of the Humanities Programme a statement of objectives and proposed content for the course; this should be done by 15 April for F and Y courses and by 1 December for S courses. If the proposal is approved, two faculty members from relevant disciplines will supervise and evaluate the work.
Exclusion: (HUMC91-C93)
Prerequisite: Three B-level full-course equivalents in the Division of Humanities.
Session: Winter Day
Offered 1994/95

HUMD95-D99Y Individual Study Year
An opportunity for advanced students to spend a year following their own studies under the supervision of faculty drawn from the various disciplines within the Division of Humanities. Students will be expected to produce major papers or projects in their chosen areas, and will take an oral examination at the end of the year before appropriate faculty. Those interested in enrolling should contact the Supervisor of Studies.
Exclusion: (HUMC95-C99)
Prerequisite: Permission of the Supervisor of Studies.
Session: Winter Day
Staff
Offered 1994/95

DRAB27F Science, Power, and Hell: The Story of Dr. Faustus on Stage
Telephone ID #: 04022733
A literary examination of the myth of Dr. Faustus, scientist, philosopher, physician, and black magician, which originated in 1587 and has paralleled the development of modern science.

We will examine the popular *History of Dr. Johann Faustus* (1587), Christopher Marlowe's play *The Tragical History of Dr. Faustus* (1588), the puppet plays, J. W. Goethe's play *Faust* (1806-1832), and other works. The focus will be on the literary transmutation of the legend of Faust, and on such questions as the relation of faith to knowledge, knowledge to power, power to love. Throughout, close attention will be paid to the changing socio-political and intellectual circumstances, within which the various writers composed their versions of the story.
Exclusion: (LITB50S)
Prerequisite: (LITA01) or (ENGA01) or ENGA11 or FREA50Y (B60Y) or one full course in literature
Session: Winter Day
H. Ohlendorf

Courses Not Offered in 1993-94

HUMA03Y	Prologue II: East Asia and the Middle East Offered 1994/95
HUMB01Y	Environment and Human Life; The Mediterranean World
HUMB03Y	Celtic Mythology and Mediaeval Celtic Civilization
HUMB05F/S	The Irish

HUMB09F/S The Scots
HUMB27F/S Science Fiction
HUMB30F/S Africa Since 1800
HUMB39F/S Fantasy in Narnia and Middle Earth
HUMB42Y The Modernist Adventure
Exclusions: (RUSB24), (SPAB33), (LITB22)
Prerequisite: One course in literature.
HUMB44F Disaster and the Literary Imagination
Exclusion: (LITB40)
Prerequisite: One course in literature
HUMB58Y The Nineteenth Century Russian Novel, 1830-1880
Exclusion: (RUSB11), (LITB07Y), SLA240Y
Prerequisite: One course in literature.
CLAA02Y Greek and Roman Mythology
Exclusion: (HUMA11)
DRAB07Y Dramatic Literature and Political Revolution
Exclusion: (JDHB16) (JHGB50) (LITB15) (HUMB48)
Prerequisites: One full-course equivalent in literature.
ITAC71S Italian Cinema
Exclusion: (JHIB71);ITA240 (JHIC71)
Prerequisite: For those taking the course as part of a Programme in Italian, ITAB01 or ITAB11; for *others, none.*
SPAB14F The Civilization of Spain I
Exclusion: (HUMB15) (HUMB09) (HUMC09)
Offered 1994/95
SPAB15S The Civilization of Spain II
Exclusion: (HUMB15) (HUMB10) (HUMC13)
Offered 1994/95

International Development Studies

Major Programme in International Development Studies
Supervisor: J. Boddy (287-7281)
The dimensions and diversity of problems facing developing countries have involved many academic disciplines. At the Scarborough Campus the Major Programme in Development Studies is based primarily on existing courses taught by faculty members actively involved in development problems. In organizing the Programme an attempt has been made to provide a core of fundamental knowledge which can be applied in Third World countries. Students may then select additional courses from a broad range of relevant courses at the Scarborough and St. George Campuses which will allow more specialized thematic or regional concentration. Students enrolling in this Programme are strongly advised to combine it with a major programme in a related discipline. The Programme is designed both for students with a broad general interest in developing countries or those with some interest in pursuing a course in development studies. Students in the latter category should seriously consider the more intensive Co-operative Programme in International Development Studies.

Students must complete:

IDSB01Y	Political Economy of International Development
IDSB02F/S	Development Studies: Physical and Ecological Resource Management

They must also complete at least [redacted] full-course equivalents from the following: (Courses marked with an asterisk (*) have prerequisites.)

*ANTB20Y	Social and Cultural Anthropology
*BIOB14F	Environmental Biology
*ECOC66F	Economic Development
*ECOC67S	Development Policy
*EESB05F	Introduction to Soil Science
*EESC11S	Soil Management in Tropical Regions
POLB80Y	International Relations
POLB91Y	Politics of the Third World
*SOCC17F	Social Change in the Third World

An additional [redacted] full-course equivalents should be selected from the following: (Courses not selected as the three core courses in the group above may be included.)

*ANTB01Y	Ecological Anthropology
ANTB03F/S	The Americas: an Anthropological Perspective
*ANTB05F	African Cultures and Societies I: Survey
*ANTB07F/S	Comparative Slavery
*ANTB55Y	Cultures of the Middle East and the Islamic World
*ANTC06S	African Cultures and *Societies II: Case Studies*

*ANTC10F/S	Anthropological Perspectives on Development
*ANTC11Y	The Anthropology of Women
*ANTC19F	Economic Anthropology
*ANTC35F	Quantitative Methods in Anthropology
*ANTC60F/S	Fieldwork in Social and Cultural Anthropology
*ANTC61F	Medical Anthropology: Illness and Healing in Cultural Perspective
*ANTC62S	Medical Anthropology: Biological and Demographic Perspective
*ANTC63F	The Anthropology of Food: Human Needs
*ANTC64S	The Anthropology of Food: Consuming Passions
*BIOB12Y	Fundamentals of Ecology
*BIOC50F	Ecology of Arid Regions
ECOA02Y (ECOA01Y)	Introduction to Economics: A Mathematical Approach
	or
ECOA03Y (ECOA01Y)	Introduction to Economics
ECOB03Y	Price Theory
	or
ECOB04Y (ECOB03Y)	Price Theory: A Mathematical Approach
ECOB07Y	Macroeconomic Theory and Policy
	or
ECOB08Y (ECOB07Y)	Macroeconomic Theory and Policy: A Mathematical Approach
*ECOB10F/S	*Quantitative Methods in Management*
EESB02F	General Geomorphology
*EESB03S	Climatology
*EESB04F	Hydrology: Estimation and Forecasting
*EESD11S	Hydrology: Physical Processes and Modelling
*GGRC20F/S	Issues in Rural Development
*GGRC29S	Problems in Modern Agricultural Land Use
IDSC04F/S	Project Management
POLC95Y	Politics and Society in Tropical Africa
POLC96Y	Politics and Society in Middle East
POLC98Y	Politics and Society in Latin America
POLD93F	Selected Topics on Developing Areas
POLD94S	Selected Topic on Developing Areas
WSTC10Y	Women and Development

Notes:
The Major Programme in International Development Studies requires a minimum of [redacted] course equivalents from the courses listed above, together with appropriate prerequisites. These normally involve A-level prerequisites in each discipline selected. It is possible to complete the Programme within three years, as shown in Example 1 below.
Example 1 (three-year degree)
First Year:
IDSB01Y, IDSB02F/S, ECOA02Y or ECOA03Y, EESA02S, SOCA01Y
Second Year:
ECOB03Y, EESB05F, EESC11S, ANTB20Y, POLB80Y, POLB91Y
Third Year:
ECOC66F, ECOC67S, SOCC17F, POLC95Y, POLD93F, POLD94S
However, students are strongly advised to register in a four-year degree which requires a Major (or Specialist) in a discipline as well as a Major in International Development Studies. In Example 2 a Major in Political Science would be obtained along with a Major in International Development Studies.
Example 2 (four-year degree)
First Year:
ECOA02Y or ECOA03Y, POLA50Y (POLA01Y), SOCA01Y, ANTA01Y, EESA02S
Second Year:
IDSB01Y, IDSB02F/S, ECOB03Y, ANTB20Y, POLB91Y
Third Year:
ANTB05S, BIOB14F, ECOC66F, ECOC67S, POLB70Y, POLB80Y
Fourth Year:
ANTC11Y, ANTC63F plus ANTC64S, POLC87Y, POL98Y, POLD93F, POLD94S

Italian

Discipline Representative: D. McAuliffe (287-7168)
Scarborough College offers a range of courses on the language and literature of Italy from the Middle Ages to the present. For students who have no previous training in the language, the study of Italian begins at the elementary level with ITAA01/A02 or ITAA11. ITAB01 (or ITAB11) is pre- or corequisite to all other ITA courses taught in Italian. Students with other types of language preparation should consult the Discipline Representative before choosing their course of study. In all courses, attention is given to spoken as well as

written aspects of the language.

Courses offered by other disciplines may prove directly valuable to students in Italian as adjuncts to their plan of study or as an enrichment of their total programme. Similarly, certain aspects of Italian literature complement other areas of interest, such as Fine Arts, Music, English, French, Spanish, Humanities, and Management and Economics.

Students enrolled in Italian, especially those who may later wish to enrol in the Faculty of Education or to continue their studies at the graduate level, are strongly urged to confer with their instructors at the earliest possible date in order to establish a comprehensive and coherent plan of study. For example, some may wish to take advantage of the Supervised Reading courses (ITAD...) or courses offered through the Italian Department on other campuses in order to achieve the necessary breadth required for graduate programmes.

Students are not allowed to take any A-level courses in Italian language while taking or after completing any B-level course in Italian language.

Students may be excluded from any course if their knowledge of Italian is deemed by the instructor to exceed the level of the language of that course.

Students in the Major Programmes may satisfy some of their Programme requirements through a Study Elsewhere Programme, especially that operated by the University of Toronto at Siena.

Major Programme in Italian
Supervisor: J. Campana (287-7180)
The Programme combines the study of language and some aspects of Italian culture and civilization. It has three streams, according to the student's background. Students should complete seven full-course equivalents, as follows:
Option A (for students who have no prior knowledge of Italian or its dialects):

1	ITAA01Y	Introductory Italian
	and	
	ITAA02H	Language Practice
2	ITAA03S	Conversation II
	or	
	ITAB03F/S	Intermediate Conversation
3	ITAB01Y	Intermediate Italian I
4	ITAC01Y	Language Practice
5	ITAC22F/S	Introduction to Modern and Contemporary Literature
6	ITAC23F/S	Survey of Italian Literature from the Middle Ages to the Renaissance
7	One full-course equivalent from among the following: ITAB20F/S, ITAC04F/S, ITAC05F/S, ITAC71F/S	
8	LINA01Y	General Linguistics

Option B (for students with some prior knowledge of Italian or one of its dialects):

1	ITAA11Y	Elementary Italian
2	ITAA03S	Conversation II
3	ITAB01Y	Intermediate Italian I
	or	
	ITAB11Y	Intermediate Italian II
4	ITAC01Y	Language Practice
5	ITAC22F/S	Introduction to Modern and Contemporary Italian Literature
6	ITAC23F/S	Survey of Italian Literature from the Middle Ages to the Renaissance
7	One and one-half full-course equivalents from among the following: ITAB03F/S, ITAB20F/S, ITAC04F/S, ITAC05F/S, ITAC71F/S	
8	LINA01Y	General Linguistics

Option C (for students with OAC or Grade 13 Italian):

1	ITAB01Y	Intermediate Italian I
	or	
	ITAB11Y	Intermediate Italian II
2	ITAC01Y	Language Practice
3	ITAC22F/S	Introduction to Modern and Contemporary Italian Literature
4	ITAC23F/S	Survey of Italian Literature from the Middle Ages to the Renaissance
5	Three further full-course ITA equivalents at the B- and C- levels	
6	LINA01Y	General Linguistics

Language requirements will be waived by the Supervisor for students judged to have advanced knowledge of Italian. Appropriate courses from the Discipline's offerings will be substituted. Students are strongly advised to discuss their Programme as soon as possible with the Supervisor.

Minor Programme in Italian
Supervisor: D. McAuliffe (287-7168)
Four full-course equivalents, as follows:

1. One and one-half full-course equivalents in elementary Italian language (ITAA01Y and AO2H, or ITAA11Y and ITAA03S)
2. One full-course equivalent in intermediate Italian language (ITAB01Y or ITAB11Y)
3. ITAB20F/S Modern Italy
4. One full-course ITA equivalent at the C-level

ITAA01Y Introductory Italian
Telephone ID #: 08610163
An elementary course for students with no knowledge of Italian which must be taken together with ITAA02H. Elements of Italian grammar, with attention given to oral practice. Short contemporary texts will be studied.

Our aim is to provide a relaxed friendly atmosphere in which to study basic standard Italian grammar and syntax. Importance is given to exercises which develop the practical skills of understanding and speaking needed for the corequisite course A02H. The basic Italian textbook is supplemented by dialogues made up by the students and easy readings commencing as early as progress in the textbook permits. A programme is also provided in the language laboratory. Students are expected to participate in classroom exercises, hand in written assignments completed outside the classroom, and write monthly tests.
Exclusions: OAC Italian, Grade 13 Italian, ITAA11, ITA100, ITA101.
Corequisite: ITAA02. It is also recommended that students enrolled in ITAA01 and ITAA02 take ITAA03 concurrently with them in the Spring term.
Session: Winter Day
D. McAuliffe
Offered every year

ITAA02H Introductory Italian Language Practice
Telephone ID #: 08610243
Practical application of the language structures introduced in ITAA01.

As with the corequisite A01Y, our aim is to provide a relaxed, friendly atmosphere in which to learn basic standard Italian. Classtime is devoted entirely to conversing in Italian. At the beginning students are given set dialogues which they practise with one another. As they gain confidence and knowledge of the language they are encouraged to prepare their own dialogues and conversations based on situations and topics of interest.
Exclusions: OAC Italian, Grade 13 Italian, ITA100, ITA101.
Corequisite: ITAA01
Session: Winter Day
D. McAuliffe
Offered every year

ITAA03S Conversation II
Telephone ID #: 08610353
Practical application of the language structures introduced in ITAA01 and ITAA11.

Students are encouraged to speak Italian in a relaxed, informal classroom atmosphere. Conversations are based on situations that the student is likely to encounter in Italy as well as on readings prepared at home from literary works, newspapers, and magazines. Among the topics chosen are the geography, history, politics, economics, and cultural life of contemporary Italy.
Exclusion: ITA101
Corequisite: ITAA01 or ITAA11
Session: Winter Day
D. McAuliffe
Offered every year

ITAA11Y Elementary Italian
Telephone ID #: 08611163
An elementary course for native speakers with little or no knowledge of standard Italian usage.

The course aims at giving a basic knowledge of speaking, reading, and writing Italian. The main objective is to free the student from phonological, lexical, and grammatical interference arising from the use of dialects and English in the Italian community. Basic grammar rules will be studied and modern prose passages will be analyzed from the point of view of grammatical structure, lexical choice, and idiomatic expressions. The course will be conducted almost entirely in Italian. Use of the language laboratory is highly recommended.
Exclusions: OAC Italian, Grade 13 Italian, ITAA01, ITA100, ITA110.
Corequisite: It is strongly recommended that students enrolled in this course take ITAA03 concurrently with it.
Session: Winter Day
J. Campana
Offered every year

ITAB01Y Intermediate Italian I
Telephone ID #: 08620163
Intensive review of grammar, with drills, exercises, and compositions.

The course concentrates on explaining and practising the more difficult parts of Italian grammar. This will alternate with

reading and discussion of passages of modern Italian prose and poetry. The student will be asked to prepare written grammar exercises, as well as to write comments on or summaries of the readings discussed in class. The course will be conducted in Italian whenever possible.
Exclusions: ITAB11, ITA152, ITA250, ITA251, ITA252
Prerequisite: ITAA01 or OAC Italian or Grade 13 Italian
Session: Winter Day
J. Campana
Offered every year

ITAB31Y Dante's Divine Comedy
Telephone ID #: 08623163
A study of the Divine Comedy within the literary and cultural context of the Middle Ages.

The course introduces students to Dante's Divine Comedy with specific reference to the problems, mentality, and cultural patterns of man in the Middle Ages. The lectures will examine Dante's masterpiece against the background of medieval literature, focusing on a selection of *canti* and their significance in terms of the life and culture of the times. Lectures and readings will be in English. Students planning to count this course towards a Programme in Italian should consult the instructor.
Exclusions: ITAC31Y, ITA321
Session: Winter Day
A. Franceschetti

ITAC01Y Language Practice
Telephone ID #: 08630163
An advanced language course focusing on complex problems of Italian grammar.

This course is designed to give students an opportunity to improve their knowledge of written and oral Italian at an advanced level. Specific points of grammar, syntax, and style will be discussed and exemplified with drills and exercises. Students will be asked to write short compositions. A selection of passages by modern Italian authors will provide the necessary material for stylistic analyses, summaries, and paraphrases.
Exclusions: ITA350, ITA351, ITA352
Prerequisite: ITAB01 or ITAB11
Session: Winter Day
A. Franceschetti
Offered every year

ITAC05F Practical Translation
Telephone ID #: 08630533
Practice in translating from English to Italian and from Italian to English, combined with analysis and discussion of a wide variety of texts in terms of type of language and style of expression.

Class time is devoted to increasing the student's proficiency with high-frequency structures and vocabulary. Examples of colloquial, journalistic, literary, technical, and business expression will be translated and analysed.
Exclusions: (ITAB05), ITA271; ITA371
Prerequisite: ITAB01 or ITAB11
Session: Winter Day
J. Campana

ITAC22F Introduction to Modern and Contemporary Literature
Telephone ID #: 08632233
An introduction to literary movements, masterpieces, and authors from the eighteenth century to contemporary times.

Selections from the works of influential novelists, poets, and dramatists will be examined in relation to the different linguistic and cultural backgrounds from which they sprang, and to the major modern theme of the individual in society. Texts include works by Goldoni, Manzoni, Leopardi, Verga, D'Annunzio, Pirandello, Pavese, and Calvino.

This course will be conducted in Italian and will be a combination of lectures and discussion.
Exclusion: (ITAB22); ITA120, ITA226
Prerequisite: ITAB01 or ITAB11
Session: Winter Day
D. McAuliffe
Offered every year

ITAC23S Survey of Italian Literature from the Middle Ages to the Renaissance
Telephone ID #: 08632353
An introduction to the main literary movements, masterpieces, and authors from the beginning of Italian literature to the end of the seventeenth century.

This course is intended to give the student a knowledge of the early development of Italian literature in its historical context as well as to develop the student's ability to read the early literary language of Italy. The passages to be read and discussed will include selections from "Dolce Stil Novo," Dante's *Divine Comedy*, Petrarch's *Canzoniere*, Boccaccio's *Decameron*, Poliziano's *Stanze*, Machiavelli's *Principe*, Ariosto's *Orlando Furioso*, and Tasso's *Gerusalemme Liberata*.

Lectures and discussion in Italian. A one hour tutorial will be provided for those who need additional help with the Italian language.
Exclusion: (ITAB23)
Prerequisite: ITAB01 or ITAB11
Session: Winter Day
D. McAuliffe
Offered every year

ITAC71S Italian Cinema
Telephone ID #: 08637153
A survey of the development of Italian cinema from World War II to the present.

Films by Bertolucci, Antonioni, Fellini, Pasolini, and other post-war Italian directors will be shown during the course, which will meet four hours per week. Besides participating in the discussions, students will be required to write a brief review of four films, and one end-of-term essay for which a cinematic project (a short film plus a scenario) may be substituted. This course is open both to students with no previous knowledge of Italian language and culture and to specialists in Italian. Specialists in Italian will be expected to do their written work in Italian.
Exclusions: (JHIB71), (JHIC71), ITA240,
Prerequisite: For those taking the course as part of a Programme in Italian, ITAB01 or ITAB11; for others, none.
Session: Winter Day
J. Campana
Offered every year

ITAD50F-54F
ITAD55S-59S
ITAD60Y Supervised Reading
These courses are designed to provide advanced students, especially those who wish to apply to a graduate faculty, with the opportunity to pursue independent study on specific aspects of Italian language and literature of their own choice. The students are expected to do most of the reading on their own and to meet regularly with a faculty member to discuss their progress and any problems arising from the chosen topic of study. The teaching method and the evaluation will vary according to the subject matter and the individual student. Interested students should contact the Discipline Representative.
Exclusion: (ITAC50-54F, ITAC55-59S, ITAC60Y)
Prerequisite: One full-course equivalent in Italian literature.
Session: Winter Day
Staff
Offered every year

Courses Not Offered in 1993-94

ITAB03S Intermediate Conversation
Corequisite: ITAB01 or ITAB11

ITAB11Y Intermediate Italian II
Exclusion: ITAB01; ITA152, ITA250, ITA251, ITA252
Prerequisite: ITAA11
Corequisite: It is strongly recommended that students enrolled in this course take ITAB03 concurrently with it.

ITAB20F Modern Italy
Exclusion: (HUMB18), (ITAC20); ITA245

ITAC04F Advanced Composition
Exclusion: (ITAB04); ITA450, ITA452
Prerequisite: ITAB01 or ITAB11

ITAC31Y Dante and Medieval Culture
Exclusion: ITAB31; ITA321
Prerequisite: ITAB01 or ITAB11; a course in Italian Literature such as ITAC22 and ITAC23, is recommended but not required.

ITAC45F The Nineteenth-Century Italian Novel in Transition
Exclusion: (ITAB45); ITA222
Prerequisite: ITAB01 or ITAB11; a course in Italian literature, such as ITAC22 and ITAC23, is recommended but not required.

Language Studies

The following **Programmes** are offered in Languages:

Specialist Programme in Modern Languages
Supervisor: U. Sherman
The Modern Languages Specialist Programme enables a student to gain a high degree of fluency in two languages, or in one language together with a concentration in Linguistics. In the case of every combination, there is a common core for the Programme consisting of one course in Linguistics, and a choice from a set of courses which relate languages to broader social and historical or cultural areas.

There are ten possible combinations as follows: French and German, French and Italian, French and Spanish, German and Italian, German and Spanish, Italian and Spanish, French and Linguistics, German and Linguistics, Italian and Linguistics, Spanish and Linguistics.

Students in these Programmes may

satisfy some of their Programme requirements through a Study Elsewhere Programme operated by the University of Toronto at: (French) Aix-en-Provence, (Italian) Siena, and (Spanish) Granada.

Students of German may compete for placement in the summer work programme operated by the Federal Republic of Germany.

For every combination, students must satisfy the following requirements:

1 The courses listed under the Major Programmes in two of: French, German, Italian, Linguistics, Spanish.
2 LINA01Y General Linguistics, except where already included in the Major Programme.
3 (LATA01Y) or OAC French or Grade 13 French.
4 One full-course equivalent from the following, the choice to be approved by the Supervisor, for every combination other than French/Spanish:
HISA01Y European World
HUMA01Y Prologue

Specialist Programme in Management and Language

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 joint programmes in Management and French, German, Italian and Spanish. 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 in one language, made up of A. Basic Language, B. Business Language, C. Civilization, as follows:

French

A. FREA10, FREB10, one full-course equivalent from FREC01, FREC02, FREC04, FREC05
B. At least one full-course equivalent from FREB18, FREC18
C. At least one half course from FREB22, FREB23, FREB27, FREB28
D. An additional half course in French

German

A. GERA09, GERA10, GERB19, GERB20, GERC10
B. GERC11
C. GERC01

Italian

A. ITAA01 and ITAA02 or ITAA11, and ITAA03, ITAB01 or ITAB11, ITAB03, ITAC01
B. One half course from ITAC04, ITAC05
C. One half course from ITAA50, ITAB20, ITAC71

Spanish

A. SPAA01, SPAA02, SPAB01, SPAB04*, SPAC01
B. SPAC02
C. SPAB15 or HUMC14
* Students taking HUMC14 are not required to take SPAB04

Major Programmes:

Major Programme in French Language

Seven full-course equivalents, including:

1 FREA10Y, FREB10Y, one full-course equivalent from the sequence FREC01F/S - C05F/S
2 two full-course equivalents from the following: FREB08F/S, FREB18Y, FREB25Y, FREB42F/S, FREB43F/S, FREB48Y, FREC09Y, FREC18F/S.
3 two other full-course equivalents in French, only one of which may be chosen from group (2).
4 Students may include in their Programme a maximum of one supervised reading course.

The following may not count toward a Major Programme in French Language: FREB90F/S.

Note: Students intending to pursue their studies in French on the graduate level are advised that this Programme does not qualify them for admission to the Graduate Department of French at this University.

Major Programme in German Language

Seven full-course equivalents as follows:

GERA10Y Introductory German
and
GERA09H Language Practice I
GERB20Y Intermediate German
and
GERB19H Language Practice II
GERC01F/S The Last Hundred Years
GERC02F/S History of the German Language
GERC03F/S Language in a Literary Context
GERC09F/S Language Practice III
GERC10Y Advanced German
LINA01Y General Linguistics

Major Programme in Italian

Seven full-course equivalents, as follows:

Option A (for students who have no prior knowledge of Italian or its dialects):

1 ITAA01Y Introductory Italian
and
ITAA02H Language Practice
2 ITAA03S Conversation II
or
ITAB03F Intermediate Conversation
3 ITAB01Y Intermediate Italian I
4 ITAC01Y Language Practice
5 ITAC22F/S Introduction to Modern and Contemporary Literature
6 ITAC23F/S Survey of Italian Literature from the Middle Ages to the Renaissance
7 One full-course equivalent from among the following: ITAC04F/S, ITAC05F/S, ITAC20F/S, ITAC71F/S
8 LINA01Y General Linguistics

Option B (for students with some prior knowledge of Italian or one of its dialects):

1 ITAA11Y Elementary Italian
2 ITAA03S Conversation II
3 ITAB01Y Intermediate Italian I
or
ITAB11Y Intermediate Italian II
4 ITAC01Y Language Practice
5 ITAC22F/S Introduction to Modern and Contemporary Italian Literature
6 ITAC23F/S Survey of Italian Literature from the Middle Ages to the Renaissance
7 One and one-half full-course equivalents from among the following: ITAB03F/S, ITAC04F/S, ITAC05F/S, ITAB20F/S, JHIC71F/S
8 LINA01Y General Linguistics

Option C (for students with OAC or Grade 13 Italian):

1 ITAB01Y Intermediate Italian I
or
ITAB11Y Intermediate Italian II
2 ITAC01Y Language Practice
3 ITAC22F/S Introduction to Modern and Contemporary Italian
4 ITAC23F/S Survey of Italian Literature from the Middle Ages to the Renaissance
5 Three full-course ITA equivalents at the B- and C-levels
6 LINA01Y General Linguistics

Major Programme in Spanish Language

Seven full-course equivalents as follows:

SPAA01Y Introductory Spanish
SPAA02H Introductory Spanish Language Practice
SPAB01Y Intermediate Spanish
SPAB02H Intermediate Spanish Language Practice
SPAB04F Phonetics
SPAB12S History of the Spanish Language
SPAC01Y Advanced Spanish
SPAB14F The Civilization of Spain I
and
SPAB15S The Civilization of Spain II
or
HUMC14Y Topics in Latin American Culture and Literature
SPAC21F Stylistics and Translation
SPAC22F History of the Spanish Language II

(Note: Students who have OAC Spanish or Grade 13 Spanish must complete, in place of SPAA01 and A02, one and one-half full-course equivalents from SPA or HUM courses which concentrate on Spanish language, culture, or literature, to be arranged with the Supervisor.)

Language requirements for any of the above Programmes will be waived by the Supervisor for students judged to have advanced knowledge of the language.

Equivalent courses will be substituted in consultation with the Supervisor.

Minor Programmes:

Five options are proposed. For students who are not interested in the degree of concentration provided by the Major Programme these options offer coherent groupings of courses whose focus and linguistic emphasis vary with the different levels of students' language preparation.

Minor Programme in French

Students should complete four full-course equivalents

1 FREA10Y
2 FREB10Y
3 Plus two further FRE courses, at least one of which must be at the C-level, and excluding FREB82, FREB90

Minor Programme in German Language

Students should complete four full-course equivalents

1 GERA10Y and GERA09H
2 GERB20Y
3 GERC10Y
4 GERC01F/S

Minor Programme in Modern Greek

Students must complete four full-course equivalents as follows:

1. CLAA01Y or CLAA02Y
2. GRKB13F and GRKB14S
3. Two other full-course equivalents from: GRKB23, GRKC22, GRKC23, GRKC24

Minor Programme in Italian
Four full-course equivalents as follows:
1 One and one-half full-course equivalents in elementary Italian language (ITAA01Y and A02H, or ITAA11Y and ITAA03S)
2 One full-course equivalent in intermediate Italian language (ITAB01Y or ITAB11Y)
3 ITAB20F/S Modern Italy
4 One full-course ITA equivalent at the C-level

Minor Programme in Spanish
1 Spanish Language
SPAA01Y
SPAA02H
SPAB01Y
SPAB15F/S (or another half course in SPA in consultation with supervisor)
SPAC01Y
2 Language and Hispanic Culture
Students with OAC or Grade 13 Spanish or SPAA01Y and A02H
SPAB01Y
SPAB15F/S
SPAC01Y
SPAC21F/S (or another half course in SPA in consultation with supervisor)
HUMC14Y
3 Language and Hispanic Culture: Native Speakers
SPAB04F/S
SPAB14F/S
SPAB15F/S
SPAC01Y
SPAC21F/S
HUMC14Y

Students might also refer to the following Programmes:

Classical Studies
Linguistics

The following **courses** are offered in Languages in 1993-94. (For full course descriptions, pre- and corequisites, course cycling, etc., see under French, Classics, German, Italian, Russian, Spanish.)

FREA10Y	Language Practice I
FREB08F/S	Practical Translation
FREB10Y	Language Practice II
FREB18Y	Commercial French
FREB25Y	Introduction to French Linguistics
FREB48Y	Theoretical and Practical Phonetics
FREC01Y	Advanced Written French for General Purposes
FREC02F/S	Advanced Written French for Professional Purposes
FREC04F/S	Oral Communication for General Purposes
FREC05F/S	Oral Communication for Specific Purposes
FREC11F/S	Teaching French as a Second Language
FREC18F/S	Translation for Business and Professional Needs
FREC43F/S	The French Language in Canada
GERA10Y	Introductory German
GERA09H	Language Practice I
GERB20Y	Intermediate German
GERB19H	Language Practice II
GERC02F/S	History of the German Language
GERC09F/S	Language Practice III
GERC10Y	Advanced German
GRKB13F	Intermediate Modern Greek
GRKB14S	Advanced Modern Greek
ITAA01Y	Introductory Italian
ITAA02H	Introductory Italian Language Practice
ITAA03S	Conversation II
ITAA11Y	Elementary Italian
ITAB01Y	Intermediate Italian I
ITAC01Y	Language Practice
ITAC04F	Advanced Composition
ITAC05F/S	Practical Translation
RUS	Students with an advanced knowledge of the language may take: RUSC02H-C05H Supervised Reading
SPAA01Y	Introductory Spanish
SPAA02H	Introductory Spanish Language Practice
SPAB01Y	Intermediate Spanish
SPAB02H	Intermediate Spanish Language Practice
SPAC01Y	Advanced Spanish
SPAC21F	Literary Language
SPAC22F	History of the Spanish Language II

See also courses in LINGUISTICS

Linguistics

Discipline Representative: R. Smyth (287-7171)
Linguistics deals with all possible aspects of language. It has its own theory about the basic structure of language in such core areas as phonetics (what human sounds are possible speech sounds; how are they made and perceived?); phonology (how do languages choose sounds from the inventory of possible speech sounds to make the sound system of any given language?); morphology (how do sounds combine to form words?); syntax (how do we build sentences?); and semantics (the study of meaning in all its possible forms). Linguistics studies how language changes over time and what forces cause such change.

Linguists have interests in common with psychologists (psycho-linguistics-- what's the relationship between language and mind? How does a child learn its language, or a second or subsequent language? What can language tell us about how the mind works? What's wrong when language goes wrong?); sociologists (sociolinguistics -- what's the relationship between language and society? How does your use of language tell people about your social roles and relations?); anthropologists (ethnolinguistics -- what's the relationship between language and culture? What does your use of language tell others about your cultural values?); computer scientists (much of computer language "syntax" is based on that of human language); and students/teachers of languages (a teacher, in particular, has to be keenly aware of the structure of the language she/he is teaching). Ultimately, a strong awareness of language is important, even in seemingly unrelated areas, such as law, where a knowledge of syntax and semantics is of primary importance.

Specialist Programme in Linguistics
Supervisor: R. Smyth (287-7171)
The Specialist Programme in Linguistics: Thirteen full-course equivalents, as follows:
1 LINA01Y General Linguistics
or
LINA05Y Practical Language Study
2 LINB01Y Practical Language Analysis
and
LINB09F Phonetics
3 LINC02S Phonology
and
LINC11Y Syntax
4 Three further C- or D-level full-course equivalents in LIN and/or PLI, or in a related discipline, as approved by the Supervisor of Studies.
5 Two further full-course equivalents in LIN and/or PLI.
6 One full-course equivalent from among the following courses:
FREB25Y* Introduction to French Linguistics
FREB48Y* Theoretical and Practical Phonetics
FREC09Y Comparative Stylistics
FREC42F General History of the French Language
FREC43S The French Language in Canada
GERC02F/S* History of the German Language
PHLB80F Philosophy of Language
SPAB04F/S* Phonetics
SPAB12F/S* History of the Spanish Language I

* Students should check these courses for prerequisites.

7 Two full-course equivalents in a language which is not the student's native language.
8 One full-course equivalent in a third language or equivalent demonstrated ability.

Please note: Neither LINA04S nor LINB05Y can be counted toward the Specialist Programme in Linguistics.

Major Programme In Linguistics
Supervisor: R. Smyth (287-7171)
The Major Programme in Linguistics: Seven full-course equivalents, as follows:
1 LINA01Y General Linguistics
or
LINA05Y Practical Language Study
2 LINB01Y Practical Language Analysis
3 LINB09F Phonetics and LINC02S Phonology
or
LINC11Y Syntax
4 a. Four further full-course equivalents in LIN and/or PLI, of which at least one must be at the C- or D-level.
or
b. Three further full-course equivalents in LIN and/or PLI and one C-level full-course equivalent in a language. (Only 4a. is permitted when this programme is taken as part of the Modern Languages Specialist Programme.)
Please note: Neither LINA04S or LINB05Y can be counted toward the Major Programme in Linguistics.

Minor Programme in Linguistics
Supervisor: T.B.A.
The Minor Programme in Linguistics: Four full-course equivalents, as follows:
1 LINA01Y General Linguistics
2 LINB01Y Practical Language Analysis
3 Two further full-course equivalents in

either LIN or PLI, of which at least one must be at the C- or D-level.

LINA01Y General Linguistics: the Theory of Language
Telephone ID #: 20010163
An introduction to the various methods and theories of language analysis, and to the relationships between language and mind, language and culture, and language and society.

Topics such as the following will be covered: sound patterns in languages; word formation; sentence structure; meaning; different varieties of language and social attitudes towards them; how languages change; how children learn language; language and the brain.
Enrolment limited to 55 students per section.
Exclusion: (LINA05Y) LIN130
Session: Winter Day
R. Smyth
Offered every year

LINB01Y Practical Language Analysis
Telephone ID #: 20020163
Analysis of sound, word and sentence structure in a broad variety of languages of the world. Starting with the techniques of linguistic analysis studied in LINA01 or LINA05, students will analyze phonological, morphological, and syntactic data from a representative variety of language types. Problem sets will be distributed in class. Lectures will focus on how to organize data for analysis, how to draw upon general principles of language structure to identify possible solutions, and how to decide which of several competing solutions is best. Implications for different schools of linguistic theory will also be discussed.
Exclusion: (LINB02, LINB16)
Prerequisite: LINA01 (LINA05)
Session: Winter Day
D.M. James
Offered every year

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: (LINB11) LIN431
Prerequisite: LINB01
Session: Winter Day
R.I. Binnick
Not offered 1994/95
Offered 1995/96

LINC12F 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: LINA01
Session: Winter Day
R.I. Binnick
Not offered 1994/95
Offered 1995/96

LINC28S Language and the Sexes
Telephone ID #: 20032853
Ways in which males and females differ in how 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 for behaviour of differences in the relative status 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 languages reflect a specifically male perspective on the world.
Limited enrolment: 25
Prerequisite: LINA01Y or WSTA01Y or permission of instructor.
D.M. James
Session: Winter Day
Offered 1994/95
Not offered 1995/96

PLIC55F 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 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: JLP374 (JLPB55F/PLIB55F)
Prerequisite: One full-course equivalent in LIN and PSYA01
Session: Winter Day
R. Smyth
Offered 1994/95

PLID55F Disorders of Speech and Language
Telephone ID #: 34845533
Pathologies of language acquisition and comprehension/production. Topics include the anatomy and physiology of the speech and hearing mechanism, voice disorders (hoarseness, harshness, dysphonia, alaryngeal speech), functional articulation disorders, cleft palate, aphasia, apraxia, dysarthria, language delay, language/learning disabilities, mental retardation, hearing and auditory processing disorders, and the identification of pathologies in speakers of other dialects or languages than that of the clinician.
Exclusion: (LINB29, JLPC55)
Prerequisite: One full-course equivalent in LIN and PSYA01, and LINB25F or PLIC24S or PLIC55F or permission of instructor.
R. Smyth
Session: Winter Day
Not offered 1994/95

LIND01F/S
LIND02F/S
LIND03F/S
LIND04F/S
LIND05Y Supervised Reading
Interested students should contact Professor R. Smyth, Supervisor of Studies. The aim of these courses is to allow the advanced student of Linguistics to engage in research; this research is normally at a level which is more advanced than other Linguistics courses which the student has already taken, and in an area which is of the student's own choosing. Methods of research and of evaluation are as varied as the possible areas of research.
Exclusion: LIN495, 496, 497, 498
Prerequisite: At least one B-level full-course equivalent in Linguistics; permission of instructor.
Session: Winter Day
Staff
Offered every year

Courses Not Offered in 1993/94

LINA04S Introduction to Language
Exclusion: LIN200
LINA04 may not be taken by students who have credit for LINA01 or LINA05. LINA01 and LINA04 may not be taken in the same session.

LINB03F Sociolinguistics: the Study of Language and Society
Exclusion: (LINB14, LINC15, LINB07)
Prerequisite: LINA01 (LINA05), or LINA04 with permission of instructor.

LINB09F Phonetics: the Study of Speech Sounds
Exclusion: LIN228
Prerequisite: LINA01 (LINA05)
Not offered 1995/96
Offered 1994/95

LINB25F Second Language Learning
Prerequisite: One full-course equivalent in LIN
Not offered 1995/96
Offered 1994/95

LINB27F Animal Communication and the Nature of Language
Prerequisite: One course in LIN, or PSY, or SOC, or ANT, or BIO

LINC02S Phonology: Sound Systems of Language
Exclusion: LIN421
Prerequisite: LINB01Y and LINB09F
Not offered 1995/96
Offered 1994/95

LINC06S Language Change
Exclusion: (LINB04)
Prerequisite: LINA01 (LINA05)

LINC14S Pragmatics: The Study of Language Use
Prerequisite: LINC12
Not offered 1994/95

PLIC24S Developmental Psycholinguistics
Exclusions: (LINB15), (PLIB24) JLP315 (JLPC24S)
Prerequisite: One full-course equivalent in LIN and PSYA01
Not offered 1995/96
Offered 1994/95

LINC26F Second Language Teaching
Not offered 1994/95

LIND21Y Investigation of a Language
Exclusion: (LINC21)
Prerequisite: LINB01
Offered 1994/95

Management

Chair: Professor Sandford Borins

The 1993/94 academic calendar year will see the consolidation of a series of important changes introduced in the Management programmes at Scarborough College in the previous two years. These changes are guided by our mission statement, which follows:

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

The first part of the mission statement will be achieved through the Specialist programmes in Management, which are intended to prepare students for careers in the public or private sectors or in accountancy. The second part of the mission statement will be achieved through our Introduction to Management course (MGTA02). The third part of the mission statement refers to faculty development initiatives now underway.

The College is now offering the Bachelor of Commerce (B.Comm.) degree to students who complete either the Specialist Programme in Management and Economics or the Specialist Programme in Management and Economic Theory. Students completing the Specialist Programme in Management and the Joint Specialist Programme in Management and Language will continue to receive the B.A.

Our faculty development initiatives have enabled the Scarborough College Management programmes to offer a much wider range of elective courses than in previous years. Scarborough College students who wish to take courses at the St. George Campus for which comparable courses are not available at Scarborough should be aware that courses at the St. George Campus are subject to limits on enrolment.

Admission to graduate studies leading to the Master of Business Administration (MBA) degree is open to all qualified graduates (fifteen or twenty course degrees) regardless of the subjects or disciplines studied at the undergraduate level. Students contemplating graduate study would be well advised to include MGTA02 in their undergraduate programme. They should also consider strengthening their preparation for graduate work by taking courses in such areas as Economics, Mathematics, Computer Science, Sociology, Psychology and Anthropology.

Limited enrolment: Because of pressures of demand for places, it has been necessary to place enrolment limits on most Management courses and on admission to Programmes. Information on how to apply for admission to a Programme and to limited enrolment courses will be available prior to the end of classes in April.

Prerequisites: Prerequisites will be strictly enforced for all Management courses. Students who knowingly or unwittingly register for courses for which they do not have the necessary prerequisites will be denied access to those courses.

Management Programmes

There are three Specialist Programmes in Management, which are described below. These programmes are substantially different from the Specialist Programmes offered in the 1991-92 calendar. In addition, the Major Programme in Management is no longer being offered. Students admitted to the Specialist or Major programmes in 1991-92 or earlier will be allowed to complete their programmes as described at the time of admission. Alternatively, they may wish to follow one of the programmes described below. They should consult with the Supervisor about this choice.

Admissions

Each year a total of 160 students are admitted to the Specialist Programmes. There are three possible ways to be admitted:

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 or the Specialist Programme in Management and Economic Theory 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 completed at least 8 credits.

2. At the End of First Year

Applicants for the Specialist Programme in Management must have completed (or be in the process of completing) MGTA02 and ECOA03 or ECOA02. Applicants for the Specialist Programme in Management and Economics and the Specialist Programme in Management and Economic Theory must have completed (or be in the process of completing) MGTA02, ECOA02, and MATA28 or MATA26. Students who were unable to complete ECOA02 and instead took ECOA03, may be able to enter the B.Com. programmes once they have completed calculus. Students should be aware that calculus is required in both of these programmes. The normal course to meet this requirement is MATA28. Students may also meet this requirement by taking both MATA26 (or MAT133 at St. George) and MATB41.

Students applying for admission on completion of their first year of studies will be evaluated on the basis of all their grades, including the prerequisites for admission to the Programme. In order to remain in the programme students must maintain a GPA of 2.0 or higher after having completed at least 8 credits.

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 courses 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 together for 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 Programme in Management

Supervisor : T. Litovitz

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.

The Programme requires the completion of the following minimum requirements as part of a twenty-course degree:

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

1. MGTA02, MGTB02, MGTB03, MGTB27, MGTC03, MGTC04, MGTC60
2. at least 0.5 FCE of courses emphasizing management skills, chosen from MGTC36, MGTC42, MGTC54, MGTD09
3. at least 0.5 FCE of courses in strategic management, chosen from MGTC10, MGTC11, MGTC35, MGTC38, MGTC42, MGTC44, MGTC59, MGTD09
4. ECOA02 or ECOA03; ECOB10 or STAB22 (a one-semester non-calculus introduction to quantitative methods); and 2 additional FCEs in economics, chosen from ECOB03, ECOB07, or 1 FCE of C-level economic courses
5. CSCA02 or CSCA06
6. Four additional full-course equivalents from courses other than MGT & ECO, to include at least one full-course equivalent from among a set of Humanities courses which emphasize writing skills.
   CLAA01Y, CLAA02Y, CLAB11F/S, CLAB32F/S, CLAB33F/S, DRAB03Y, DRAB04Y, DRAB06Y, DRAB07Y, ENGA11Y, ENGB07Y, ENGB08Y, ENGB10Y, ENGB11Y,ENGB14Y, ENGB15Y, ENGB20F, ENGB21S, ENGB25F/S, ENGB34F/S, FARB66Y, FREB25Y, FREB36F, FREB37S, FREB82, FREB90, GERC01, GRHB01Y, GRHB04, HISB04Y, HISB06Y, HISB07Y, HUMA01Y, HUMA03Y, HUMB02Y, HUMB05, HUMB42, ITAC22F, ITAC23S, ITAC31Y, ITAC45F/S, MUSA01Y, MUSA11S, MUSA12F/S, MUSB13F/S, MUSB14F./S, MUSB31F/S, MUSB32F/S, PHLB01F, PHLB03F, PHLB05F, SPAB14F, SPAB15S

JOINT SPECIALIST PROGRAMME IN MANAGEMENT AND LANGUAGE

Supervisor: T. Litovitz

The Management and Economics and Humanities Divisions have cooperated to develop joint programmes in Management and French, German, Italian, or Spanish.

The Management requirements for any of these programmes is the first 5 requirements for the Specialist in

Management (see above). The sixth requirement is waived.

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

FRENCH

A. FREA10, FREB10, one full-course equivalent from FREC01, FREC02, FREC04, FREC05
B. at least one full-course equivalent from FREB18, FREC18
C. at least one half course from FREB22, FREB23, FREB27, FREB28
D. An additional half course in FRE

GERMAN

A. GERA09, GERA10, GERB19, GERB20, GERC10
B. GERC11
C. GERC01

ITALIAN

A. ITAA01 and ITAA02 or ITAA11 and ITAA03, ITAB01 or ITAB11, ITAB03, ITAC01
B. one half course from ITAC04, ITAC05
C. one half course from ITAA50, ITAB20, ITAC71

SPANISH

A. SPAA01, SPAA02, SPAB01, SPAB04*, SPAC01
B. SPAC02
C. SPAB15 or HUMC14

* students taking HUMC14 are not required to take SPAB04

Students must take at least 10 FCEs in Management listed as requirements 1 - 5 of the Management curriculum plus the Language requirements.

Specialist Programme in Management and Economics

Supervisor: T. Litovitz

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

The Programme requires the completion of the following minimum requirements as part of a twenty-course degree:

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

1. MGTA02, MGTB02, MGTB03, MGTB27, MGTC03, MGTC04, MGTC09, MGTC74, MGTC75
2. at least 0.5 FCE of courses emphasizing management skills, chosen from MGTC36, MGTC42, MGTC54, MGTD09
3. at least 0.5 FCE of courses emphasizing strategic management, chosen from MGTC10, MGTC11, MGTC35, MGTC38, MGTC42, MGTC44, MGTC59, MGTD09
4. ECOA02, ECOB04, ECOB08, ECOB09, and 1 FCE of C-level economics courses
5. MATA28 or MATA26 and MATB41
6. CSCA06
7. Four additional FCE's from courses other than MGT/ECO, to include at least 1 FCE from among a set of Humanities courses which emphasize writing skills, listed as requirement 6 for the Specialist Programme in Management.

Specialist Programme in Management and Economic Theory

Supervisor: T. Litovitz

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

The Programme requires the completion of the following minimum requirements as part of a twenty-course degree:

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

1. MGTA02, MGTB02, MGTB03, MGTB27, MGTC03, MGTC04, MGTC09, MGTC74, MGTC75
2. at least 0.5 FCE of courses emphasizing management skills, chosen from MGTC36, MGTC42, MGTC54, MGTD09
3. at least 0.5 FCE of courses emphasizing strategic management, chosen from MGTC10, MGTC11, MGTC35, MGTC38, MGTC42, MGTC44, MGTC59, MGTD09
4. ECOA02, ECOB04, ECOB08, ECOB09, ECOD50, and 2 FCE chosen from:
   - ECOC11
   - ECOC13 and ECOC14
   - 1 FCE of C-level economics courses
5. MATA28 or MATA26 and MATB41
6. CSCA06
7. Four additional FCEs from courses other than MGT/ECO, to include at least 1 FCE from among a set of Humanities courses which emphasize writing skills, listed as requirement 6 for the Specialist Programme in Management.

Careers in Accountancy

The College offers a significant number of courses which have been recognized as meeting part of the educational training of Chartered Accountants, Certified General Accountants and Certified Management Accountants. A brochure describing the various programmes and listing the recognized Scarborough College courses is available from Counselling Services (287-7550).

MGTA02Y Introduction to Management

Telephone ID #: 33510263

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

Exclusions: Any other MGT course (except B02 for students in programmes requiring B02 or B02 for students admitted to the Management programme directly from high school)

Prerequisite: None

Session: Winter Day, Winter Evening, Summer Evening

MGTB02Y Financial Accounting

Telephone ID #: 33520263

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

Exclusions: (MGTA01)(COMA01)

Prerequisite: MGTA02. Students admitted to the Management programme directly from high school and students registered in programmes requiring this course may take MGTA02 concurrently.

Session: Winter Day, Summer Evening

MGTB03S Management Accounting

Telephone ID #: 33520353

An introduction to management and cost accounting with an emphasis on the use of accounting information in managerial decision-making. Topics include patterns of cost behaviour, transfer pricing, budgeting and control systems. Enrolment is limited to students registered in programmes requiring this course.

Exclusions: (MGTB01) (COMB01)

Prerequisites: ECOA02 or ECOA03 (ECOA01)

Corequisite: MGTB02

Session: Winter Day, Winter Evening, Summer Evening

MGTB27Y Organizational Behaviour

Telephone ID #: 33522763

This course is designed to introduce students to the theoretical and practical aspects of managing human behaviour in organizational settings. The course will critically assess organizational behaviour within four interrelated levels of analysis: the overall organization, the individual, groups, and linking processes. Topics covered include leadership, power, communication, stress, motivation, job satisfaction, careers, group dynamics, organizational design and organizational culture.

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

Exclusion: (JCSB27Y)

Prerequisite: MGTA02Y

Session: Winter Day, Summer Evening

MGTC01Y Intermediate Financial Accounting

Telephone ID #: 33530163

An examination of some of the theoretical and practical accounting problems involved in income determination and balance sheet valuation. The course builds extensively on the material in MGTB02 and, to a lesser extent, MGTB03. Potential students should review thoroughly the basic accounting model, preparation of financial statements and accounting principles prior to the start of the course.

Limited enrolment: 60

Exclusion: (COMC01)

Prerequisites: MGTB02 and MGTB03 or (MGTB01 (COMB01))

Corequisite: MGTC06

Session: Winter Day, Winter Evening

MGTC03F Principles of Finance

Telephone ID #: 33530333

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 programmes requiring this course.
Exclusions: MGTC02 (JCEC02)
Prerequisites: MGTB03 (MGTB01 or COMB01), ECOB03 or ECOB04
Session: Winter Day, Winter Evening

MGTC04F Principles of Marketing
Telephone ID #: 33530433
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. The subjects include an examination of buyer behaviour, market segmentation and target marketing; the basic elements of the marketing mix-product, price, promotion and channel policies; marketing planning, evaluation and control.
Exclusion: (COMC04)
Prerequisites: MGTB03 or (MGTB01) (COMB01)
Session: Winter Day, Winter Evening, Summer Evening

MGTC05S Introduction To Marketing Management
Telephone ID #: 33530553
A pragmatic case and readings oriented approach to develop the analytical skills required of marketing managers. The course is designed to help improve skills in analyzing marketing situations, identifying market opportunities, developing marketing strategies, making concise recommendations, and defending these recommendations.
Limited enrolment: 60
Exclusion: (COMC05)
Prerequisites: MGTC04 (COMC04).
Session: Winter Day

MGTC06F Intermediate Management Accounting
Telephone ID #: 33530633
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.
Exclusions: (MGTB01) (COMB01)
Prerequisite: MGTB03
Session: Winter Evening

MGTC09S Intermediate Finance
Telephone ID #: 33530953
This course provides a detailed examination of approaches for dealing with financial decisions faced by the corporation. Included are issues such as capital budgeting, leasing, mergers and acquisitions, and alternative financing methods.
Limited enrolment: 60
Exclusions: MGTC02 (JCEC02)
Prerequisites: MGTC03, ECOB09 or ECOB10 (ECOB11)
Session: Winter Day

MGTC10F Management Control Systems
Telephone ID #: 33531033
The course objective is to develop a thorough understanding of planning and control systems in organizations, with an emphasis on behavioural implications. Case studies will be used to evaluate control structures and processes with some attention to multinational, service and non-profit organizations.
Limited enrolment: 60.
Exclusion: (COMC10)
Prerequisites: MGTB03 (MGTB01) and MGTB27 (JCSB27)
Session: Winter Day

MGTC11S Management Information Systems
Telephone ID #: 33531153
This course is intended to help students understand the information systems that are a critical component of modern organizations. The course covers the technology, design, and application of data processing and information systems, with emphasis on managerial judgement and decision making.
Limited enrolment: 60
Prerequisites: MGTB03 (MGTB01 or COMB01) and MGTB27
Session: Winter Evening

MGTC16F Canadian Income Taxation I
Telephone ID #: 33531633
This is the first of two courses in Canadian income taxation. It is designed to provide the student with detailed instruction in income taxation as it applies to individuals and small businesses. Current tax laws are applied to practical problems and cases. Topics covered include: employment income, business and property income, and computation of tax for individuals.
Limited enrolment: 60
Exclusion: MGTC15 (COMC15)
Prerequisites: Completion of at least ten full-course equivalents including MGTB02 or (MGTA01) (COMA01) and MGTB03 (COMB01)
Session: Winter Day, Winter Evening, Summer Evening

MGTC17S Canadian Income Taxation II
Telephone ID #: 33531753
This course is designed to give the student an understanding of the more complex issues of federal income taxation, by applying current tax law to practical problems and cases. Topics include: computation of corporate taxes, corporate distributions, corporate re-organizations, partnerships, trusts, and individual and corporate tax planning.
Limited Enrolment: 60
Exclusion: MGTC15 (COMC15)
Prerequisite: MGTC16
Session: Winter Day, Summer Evening

MGTC22F/S Personnel Administration
Telephone ID # for MGTC22F: 33532233
Telephone ID # for MGTC22S: 33532253
An introduction to the basic concepts, theories and practices of personnel management. Topics include recruitment, selection, training, development, performance appraisal, compensation and human resources planning. Affirmative action, discrimination and equal pay issues will be examined in relation to human rights legislation.
Limited Enrolment: 60
Exclusion: (COMC22)
Prerequisites: MGTB27 (JCSB27)
Session: Winter Day

MGTC25F Organizational Design
Telephone ID #: 33532533
This course considers theoretical and design aspects of modern organizations. 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: (COMC25)
Prerequisites: MGTB27Y (JCSB27Y)
Session: Winter Day

MGTC26S Comparative Organizational Behaviour
Telephone ID #: 33532653
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
Exclusion: (COMC26)
Prerequisites: MGTB27 (JCSB27)
Session: Winter Day

MGTC30Y The Legal Environment of Business
Telephone ID #: 33533063
An intensive examination of those aspects of the law that most directly affect the operations of a business.
Limited enrolment: 60
Exclusion: (COMC30)
Prerequisites: Completion of at least ten full-course equivalents including MGTB02 or (MGTA01 (COMA01))
Session: Winter Day, Summer Evening

MGTC35S Management and Organization in Fiction
Telephone ID #: 33533553
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
Exclusion: (COMC35)
Prerequisites: MGTB27Y (JCSB27)
Session: Winter Day

MGTC36S Management Skills
Telephone ID #: 33533653
This course examines the role of personal management skills in the business world. Students discuss techniques for negotiation, team-building, and effective persuasion. Written, verbal, and non-verbal communication is emphasized by the extensive use of classroom demonstrations, student presentations, and role-playing.
Limited enrolment: 60
Prerequisites: MGTB27 (JCSB27) and MGTC04 (COMC04)
Session: Winter Day, Winter Evening

MGTC38F Entrepreneurship
Telephone ID #: 33533833
This course focuses, from a practical viewpoint, using case methods, on the skills required and issues- personal, financial, sales, operational, personnel - from start-up to maturity. The course should interest those who wish to own, or seek careers with, an entrepreneurial business.
Limited Enrolment: 60
Prerequisite: MGTA02, MGTB27 (JCSB27), MGTB03 or (MGTB01 (COMB01))
Session: Winter Day

MGTC42F Public Management
Telephone ID #: 33534233
The course deals with key public sector management processes (priority-setting, budgeting, human resources, crisis management) making extensive use of

cases, case studies, and simulations intended to develop the student's management skills.
Limited enrolment: 60
Exclusion: (COMC42)
Prerequisites: MGTB27 (JCSB27), POLA50 (POLA01 or POLB50) or POLB60
Session: Winter Day

MGTC44S International Business Management
Telephone ID #: 33534453
This course deals with problems faced by managers of international business, such development of a global business strategy, location of operations, dealing with local cultures in marketing and human resource management, and negotiations with host governments.
Limited enrolment: 60
Prerequisites: MGTA02 and MGTB27 (JCSB27)
Session: Winter Evening

MGTC54Y Industrial Relations
Telephone ID #: 33535463
A study of industrial relations in the Canadian setting. Topics include: industrial relations theory and systems; history, philosophy and structure of unionism, labour law, and a collective bargaining simulation exercise.
Limited enrolment: 60
Exclusion: (JCEC54)
Prerequisites: Completion of at least ten full-course equivalents including ECOA02 or ECOA03 (ECOA01).
Session: Winter Evening

MGTC59S Management Ethics
Telephone ID #: 33535953
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 regulators have come to demand -- a sophisticated managerial approach to the ethical problems that arise in all areas of business practice. Topics will include ethical issues in international business, finance and banking, accounting, advertising, intellectual property rights, environmental policy, product and worker safety, new technologies, pay equity and affirmative action, whistle-blowing, and drug testing for employees.
Limited enrolment: 60
Prerequisite: MGTA02
Session: Winter Day

MGTC60S Introduction to Operations Management
Telephone ID #: 33536053
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.
Enrolment is limited to students registered in programmes requiring this course.
Prerequisites: ECOA03, ECOB10
Session: Winter Day

MGTC74F Analysis for Decision-Making
Telephone ID #: 33537433
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.
Exclusions: MGTC72 (COMC72) and MGTC73 (COMC73)
Prerequisites: MATA28, ECOB04, ECOB09 (ECOB12)
Session: Winter Day

MGTC75S Operations Management: A Mathematical Approach
Telephone ID #: 33537553
Introduction to the broad scope and major strategic, tactical, and operational decisions in Operations Management. Topics include: forecasting, long-range capacity planning, location and layout of facilities, aggregate planning, project management, inventory control, and production scheduling.
Exclusion: MGTC60
Prerequisite: MGTC74; or MGTC72 (COMC72) and MGTC73 (COMC73)
Session: Winter Day

MGTD07S Market Research
Telephone ID #: 33540753
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. Instruction involves lectures and class projects including computer analysis.
Limited enrolment: 40
Exclusion: (COMD07)
Prerequisites: MGTC05 (COMC05), ECOB09 (ECOB11) or (ECOB12).
Computer background recommended.
Session: Winter Day or Winter Evening

MGTD09S Strategic Marketing Management
Telephone ID #: 33540953
A capstone marketing course which integrates conceptual and applied material both within marketing and between marketing and other disciplines such as finance and organizational behaviour through experience rather than instruction. Students manage "firms" in a computer simulated market.
Limited enrolment: 40
Prerequisites: MGTB27, MGTC04
Session: Winter Day

MGTD10F Advanced Operations Management
Telephone ID #: 33541033
This is an advanced course in Management Science and Operations Management. It examines methods for designing, evaluating, and delivering services. Topics include: location of service facilities, allocation of service resources, capacity planning of service systems, workforce scheduling, routing problems, and the Hypercube Model.
Limited enrolment: 40
Prerequisite: MGTC74
Session: Winter Day

MGTD11S Risk Management
Telephone ID #: 33541153
This course analyses the use of financial instruments such as futures and options in the management of corporate risk. Although non-quantitative issues are an important part of the course, students who take it should have a strong quantitative background.
Limited Enrolment: 40
Prerequisites: MGTC09, ECOB09 (ECOB12)
Session: Winter Day

MGTD50S Advanced Financial Accounting
Telephone ID #: 33545053
Consideration of accounting practice in the context of accounting theory and concepts for a number of areas including intercorporate investments, and foreign currency translation.
Limited enrolment: 60
Exclusion: (COMD50)
Prerequisites: MGTC01 (COMC01)
Session: Winter Evening

MGTD55F Current Issues in Financial Accounting
Telephone ID #: 33545533
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
Exclusion: (COMD55)
Prerequisites: MGTC01 (COMC01)
Session: Winter Evening

MGTD57S Current Issues in Management Accounting
Telephone ID #: 33545753
Through a review of current literature and computer simulations, this seminar 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: MGTC06
Session: Winter Evening

MGTD60S Auditing
Telephone ID #: 33546053
An introduction to the principles and practice of auditing. The course is designed to provide students with a foundation in the theoretical and practical approaches to auditing by emphasizing auditing theory and concepts, with some discussion of audit procedures and the legal and professional responsibilities of the auditor.
Limited enrolment: 60.
Exclusion: (COMD60)
Prerequisites: MGTC01 (COMC01)
Session: Winter Evening

MGTD75S Investments
Telephone ID #: 33547553
This course studies and reviews major investment problems, in particular investment in stocks and bonds, risk and return characteristics, efficient markets, evaluation, and portfolio management.
Limited enrolment: 60
Exclusion: (JCED75)
Prerequisites: MGTC09 or MGTC02 (JCEC02)
Session: Winter Day

MGTD80F/S Supervised Reading Course
This course is intended for upper-level students whose interests are not covered in

one of the other Management courses normally offered. The course will only be offered when a faculty member is available for supervision and would only be available to students whose Management performance has been well above average. Students interested in this course should consult with the Supervisor of Studies for Management well in advance.
Exclusions: (MGTC80) (COMC80)
Prerequisites: Permission of instructor
Session: Summer Day, Summer Evening, Winter Day,Winter Evening

Courses Not Offered 1993-94

MGTD08S Retail Management and Strategy
Exclusion: (COMD08)
Prerequisite: MGTC05 (COMC05)

Mathematics

Discipline Representative: P. Selick (287-7270)
The development of mathematics was induced by the inherent need to describe and analyse elements of the physical world as accurately as possible. Applied mathematics and statistics are still concerned with the building of models for use in real-world contexts. Pure mathematics is concerned with systems of axioms and the true statements or theorems which can be deduced from them. While pure mathematics is not necessarily initially motivated by practical considerations, there are numerous instances where the solution of problems in other branches of science has been based upon previously developed pure mathematical theory. The wide applicability of both the techniques of the subject and the method of reasoning employed suggests that most students could profit by taking some courses in mathematics.

Please refer to the Physical Sciences section of the Calendar for the following Programmes.

Specialist Programme in Astronomy, Mathematics and Physics

Specialist Programme in Computer Science and Mathematics

Specialist Programme in Mathematics

Specialist Programme in Mathematics and Statistics

Specialist Programme in Physical Sciences

Major Programme in Mathematical Sciences (Mathematics)

Major Programme in Mathematics
The Major Programme in Mathematics is no longer offered. Students currently registered will be allowed to complete it.

MATA04Y Linear Algebra
Telephone ID #: 20410463
Vector spaces: subspaces, basis, dimension. Systems of linear equations. Linear transformations: kernel, image, rank, matrix representation. Change of basis. Determinants. Eigenvalues and eigenvectors, characteristic polynomial, Cayley- Hamilton theorem, diagonalization. Introduction to inner products, Cauchy-Schwarz inequality, Gram-Schmidt orthogonalization.
Exclusion: (MATA40, MATA45); MAT147, 225, 229, 247
Prerequisite: Grade 13 Calculus and one other Grade 13 Mathematics or OAC Calculus and OAC Algebra
Session: Winter Day

MATA26Y Calculus
Telephone ID #: 20412663
Limits and continuity, derivatives, related rates, extremum problems, graph sketching, Newton's method, indefinite and definite integrals, numerical integration, Taylor approximation and differential equations. Students must have a calculator with memory and the exponential logarithmic and trigonometric functions and their inverses.
MATA26Y introduces the basic techniques of calculus with a strong emphasis on methods of approximation. The course will develop these ideas by the investigation of specific examples. MATA26Y is a demanding course which will equip the student for most sciences and for further work in mathematics.
Exclusion: (MATA28 (MATA27, MATA55); MAT130, 133, 135, 139, 149
Prerequisite: Grade 13 Calculus or OAC Calculus and one of OAC Algebra and Geometry or OAC Finite Mathematics
Session: Winter Day

MATA28Y Introduction to Optimization
Telephone ID #: 20412863
R^n as a model space in economics, constraints, functions of one and several variables, graphs. Derivatives, partial derivatives, differentials, rules for differentiation in several variables including chain rule, higher derivatives. Exponential and logarithm, 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. Contour maps. Lagrange multipliers. Linear programming. This course is illustrated throughout by examples drawn from Economics. Students must have a calculator with memory and the exponential and logarithmic functions.
Exclusion: MATA26 (MATA27, MATA55), MATB41; MAT130, 133, 135, 139, 149
Prerequisite: OAC Calculus and one of OAC Algebra and Geometry or OAC Finite Mathematics
Corequisite: ECOA02Y (ECOA01Y)
Session: Winter Day
NOTE: This course is intended for certain students in some Management and/or Economics Programmes. It does not satisfy the requirements for any Programme in the Physical Sciences except the Programme Computer Science for Data Management, 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 MATA28Y is appropriate to their needs.

MATB30F Geometry I
Telephone ID #: 20423033
An introduction to symmetry. Euclidean geometry: lengths, angles, volumes; isometries, symmetry, groups. Da Vinci's theorem and the platonic solids. Discrete groups of symmetries: friezes and patterns; lattices, tessellations, crystallography.
This course is intended as an introduction to geometry. It emphasizes the interplay between geometry and algebra. It should be of interest to students in chemistry, computer science and physics.
Exclusion: (MATB25)
Prerequisite: MATA04 or (MATA45)
Corequisite: MATB31 or (MATB44)
Session: Winter Day

MATB31F Algebra I
Telephone ID #: 20423133
Groups: definition and elementary examples, symmetry groups, matrix groups, permutation groups. Equivalence relations, cosets, conjugacy classes. Theorems of Lagrange, Cayley, Cauchy. Class formula and Sylow theorems. Finite abelian groups: modular arithmetic, Euclidean algorithm, lcm, gcd, classification.
Exclusion: (MATC44, MATB44); MAT247, 300
Prerequisite: MATA04 or (MATA45)
Session: Winter Day

MATB32S Algebra II
Telephone ID #: 20423253
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: (MATB40, MATB49)
Prerequisite: MATB31F or (MATB44)
Session: Winter Day

MATB41F Techniques of the Calculus of Several Variables I
Telephone ID #: 20424133
Vector algebra in R^n, lines and planes in R^3, complex numbers, matrices, determinants and linear equations. Functions of several variables, partial derivatives, gradient, tangent plane, Jacobian matrix and chain rule. Taylor series. Extremal problems. Extremal problems with constraints and Lagrange multipliers. Multiple integrals, spherical and cylindrical coordinates, law of transformation of variables.
Exclusion: (MATB05Y) (MATB50) and MATA28Y; MAT230, 234, 235, 239, 257
Prerequisite: MATA26Y (MATA27Y)
Session: Winter Day

MATB42S Techniques of the Calculus of Several Variables II
Telephone ID #: 20424253
Fourier series. Vector fields in R^n, Divergence and curl. Curves, parametric representation of curves, path and line integrals. Surfaces, parametric representations of surfaces, surface integrals. Green's, Gauss', and Stokes' theorems. Introduction to differential forms, total derivative.
Exclusion: (MATB05Y)(MATB50, MATB55); MAT230, 234, 235, 239, 257
Prerequisite: MATB41
Session: Winter Day

MATB43S Introduction to Analysis
Telephone ID #: 20424353
The least upper bound principle for R, limits in R and R^2, continuous 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 Riemann integral.

This course is designed for students whose interest in mathematics has been stimulated by their experience in A26 and A04, 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.
Exclusion: (MATA27) (MATA55) (MATB05) (MATB50); MAT246
Prerequisite: MATA26, MATA04 or (MATA45)
Corequisite: MATB42
Session: Winter Day

MATB70S Introduction to Number Theory
Telephone ID #: 20427053
Some properties of integers. Prime numbers. Congruences. Quadratic residues. Diophantine equations. Rational approximation. Three lectures per week.
Exclusion: MAT315
Prerequisite: MATA04 or (MATA45)
Session: Winter Day

MATC31F Combinatorics
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.
Prerequisitie: MATB44 (or CSCB38) and at least one other B-level course in mathematics or computer science.
Session: Winter Day

MATC49F Galois Theory
Telephone ID #: 20434933
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
Prerequisite: MATB32 or (MATB49)
Session: Winter Day

MATC51F Differential Equations I
Telephone ID #: 20435133
First order equations: separable, homogeneous, linear, exact, integrating factors. Brachistochrone, exponential growth, cooling bodies. Second order equations: reducible, linear, constant coefficients, Euler equations. Wronskian, undetermined coefficients, variation of parameters. Initial value problems. Higher order linear equations. Vibrations, electric circuits, laws of Kepler and Newton. Power series solutions and method of Frobenius. Laplace transforms.
Exclusion: APM256, APM331, MAT235, 244, 267
Prerequisite: MATA04Y; MATA26Y or (MATA55)
Corequisite: MATB41F (MATB05)
Session: Winter Day

MATC53Y Real Analysis
Telephone ID #: 20435363
Sets and functions, Zorn's lemma, cardinal arithmetic, Schroder-Bernstein theorem. Lebesque measure and integration, convergence theorems, derivatives and integrals. Continuity compactness and connectedness in metric and topological spaces, Baire category. Banach spaces and the basic tools of functional analysis. Hilbert space and linear operators.
Exclusion: (MATC50), (MATC55); MAT338, 350
Prerequisite: MATB32 (MATB49) and (MATB05) MATB41F and MATB42S and MATB43 or (MATB55).
Session: Winter Day

MATC54F Differential Geometry I
Telephone ID #: 20435433
Parametric curves in space, Serret Frenet formulae, curves with specified curvature and torsion. Plane curves, isoperimetric inequality, four vertex theorem, curves of constant width. Parametric surfaces in space, Gauss Weingarten formulae, measures of curvature, Theorema Egregium, surfaces with specified first and second fundamental forms. Curves or surfaces, geodisies, parallel transport, Gauss Bonnet theorem. Geometry on surfaces of constant curvature.
Exclusion: MAT363
Prerequisite: MATA04 or (MATA45) and (MATB05) or MATB42 or (MATB55)
Corequisite: MATC51
Session: Winter Day

MATC56S Differential Equations II
Telephone ID #: 20435653
Existence and uniqueness of solutions. Global qualitative analysis of solutions. Stability Theory. Poincar(lac)e-Bendixson. First order linear systems. Boundary value problems. Sturm-Liouville. Fourier series. Partial differential equations. Separation of variables. Heat, wave and Laplace equations. Bessel functions. Introduction to calculus of variations or difference equations.
Exclusion: APM256, APM331, APM346, MAT244, 435
Prerequisite: MATC51 (or MATB51)
Session: Winter Day

Courses Not Offered in 1993-94

MATC30S Geometry II
Exclusion: (MATB25); MAT245, 324, 325
Prerequisite: MATB30

MATC32F Graph Theory and Algorithms for its Applications
Exclusion: (JMCC32)
MATB31 (or MATB44 or CSCB38) and at least one other B-level course in Mathematics or Computer Science

MATC60F Complex Analysis I
Exclusion: MAT319, 334
Prerequisities: (MATB05) or (MATB55) or MATB42

MATC65S Complex Analysis II
Exclusion: Mat 319
Prerequisite MATC60

Music

Discipline Representative: Wm. R. Bowen (287-7194)
Music courses on the Scarborough Campus are designed both for students who intend to pursue a career in the arts and for students whose interests are more general. Students who have taken music as a subject at high school or elsewhere will find a selection of historical, theoretical, and practical courses available, while students with no previous musical background can begin musical studies here.

Most of the upper-level courses assume that the student has some ability in reading music of a simple nature, and all continuing students are encouraged and helped to acquire this skill as soon as possible. All students should consider taking advantage of the various opportunities that exist in the College for practical music making, particularly the series of Supervised Performance Courses.

Major and Minor Programmes in Music History are offered (see below). Music is also a component of the Specialist Programme in the Arts and the Specialist Programme in Arts Administration (see pages 23 and 53).

Major Programme in Music History
Supervisor: Wm. R. Bowen (287-7194)
Students are required to complete a total of seven full-course equivalents in Music and related areas.
The seven courses will be made up as follows:

1. MUSA01Y Introduction to Music
   MUSA09F Materials of Music I
   MUSB09S Materials of Music II
2. Four full-course equivalents chosen from MUS courses. Two full-course equivalents must be selected from MUSB01-B06; either MUSB03 or MUSB04 is required. At least one and one-half courses in this section should be at the C or D level. In exceptional circumstances, students may substitute one or more courses (HMU or TMU) offered by the Faculty of Music on the St. George Campus; music courses (MUS) offered through the Faculty of Arts and Science do not qualify. Permission of the Supervisor is required.
3. One additional full-course equivalent in Supervised Performance [MUSB20/21/22/23/25/26]. Students may count a maximum of one and one-half full-course equivalents in performance toward the requirements of the Major Programme.

Minor Programme in Music History
Supervisor: Wm. R. Bowen (287-7194)
Students are required to complete a total of four full-course equivalents in Music. The four courses will be made up as follows:

1. MUSA01Y Introduction to Music
   MUSA09F Materials of Music I
2. One and one-half full-course equivalents from MUSB01-B06
3. One full-course equivalent from the C or D level

MUSA01Y Introduction to Music
Telephone ID #: 22610163
A study of the basic materials, principles of design, and cultural significance of representative works 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 Josquin, Bach, Beethoven, Stravinsky and Duke Ellington. We also 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.

Upper level courses, for which MUSA01 is the prerequisite, assume that the student has some ability in reading music. Students who wish to continue to such upper level courses but who need additional preparation in rudiments are encouraged to take the optional tutorial given in the second term as a supplement to MUSA01.
Exclusion: (MUSA10, MUSA20, MUSB30); MUS100, HMU121
Session: Winter Day
J. Mayo
Offered 1994/95 and 1995/96

MUSA09F Materials of Music I
Telephone ID #: 22610933
The basic materials of music from the Middle Ages to the present.

A study of elementary harmony and musical forms designed to equip the student with simple analytical and compositional techniques. Aural aspects of the subject will be emphasized, providing a secure foundation for the development of the student's "inner ear" -- that is, the ability to hear mentally what is written and to write down what the inner ear perceives.
Exclusion: (MUSB07, MUSB17)
Prerequisite: Royal Conservatory Gr II (music rudiments) or equivalent
Session: Winter Day
A. Rapoport
Offered 1994/95 and 1995/96

MUSA11F Listening to Music
Telephone ID #: 22611133
An introduction to the language of music for non-musicians.

In the noise-polluted environment in which we live, surrounded by sounds both musical and non-musical, listening to music has become an art that needs to be consciously cultivated. This course is an introduction to the rewarding art of intelligent listening. Through examples from a variety of musical sources, including non-Western and popular music as well as "classical" music, students are introduced to some of the mysteries of musical composition and given a deeper understanding of how music works. Throughout the course the emphasis is on what may be heard in a piece of music and theoretical concepts are kept to a minimum. No previous musical experience is required.
Exclusion: MUSA01 (MUSA10/A20/B30), MUS100
Session: Summer Evening and Winter Day
Wm. R. Bowen and J. Mayo
Not offered 1994/95

MUSB04F Music of the Renaissance
Telephone ID #: 22620433
A study of the music from the early fifteenth century until 1600.

This course concerns the variety of new forms, both sacred and secular, created during the Renaissance period, and the way in which the composers expressed the new spirit of humanism in their compositions.
Prerequisite: MUSA01 (MUSB30)
Session: Winter Day
Wm. R. Bowen
Not offered 1994/95 and 1995/96

MUSB05S Music of the Baroque Era
Telephone ID #: 22620553
A study of the music from the early seventeenth century until the death of Bach.

A brief survey of the various factors which led to the breakdown of the late renaissance style, followed by a study of the "two practices" of Monteverdi, Schuetz and their contemporaries and the early development of opera and oratorio, with examples taken from the works of Cavalli, Carissimi, Lully and Purcell. The formation of an idiomatic keyboard style by Frescobaldi, Sweelinck and Froberger and the development of the sonata, concerto and sinfonia in the hands of Corelli, Vivaldi and others. The late baroque is represented by the music of Couperin, Bach and Handel, with selected works by these composers studied in detail.
Prerequisite: MUSA01 (MUSB30)
Session: Winter Day
J. Mayo
Not offered 1994/95 and 1995/96

MUSB09S Materials of Music II
Telephone ID #: 22620953
A continuation of MUSA09F
Exclusion: (MUSB24, MUSC04, MUSC21)
Prerequisite: MUSA09 (MUSB07, MUSB17) or Royal Conservatory Gr III harmony or equivalent.
Session: Winter Day
A. Rapoport
Offered 1994/95 and 1995/96

MUSB13S Music for the Theatre
Telephone ID #: 22621353
An introduction to how music is combined with other arts in the theatre.

Multi-media shows in the theatre are a popular form of entertainment. In a study of representative examples (including ballets, 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.
Session: Winter Day
Wm. R. Bowen
Not offered 1994/95

MUSB31S Performing Arts of Asia
Telephone ID #: 22623153
An introduction to the rich variety of performing arts in their social and cultural contexts as found in East, Southeast, Central, and South Asia.

Following a general introductory overview of musical life with reference to Asian geography, history, religion, and common social and cultural characteristics, the course will then take a more in-depth look at three important and distinct culture areas: East Asia (including China, Japan and Korea), Southeast Asia (including Thailand, Cambodia, Vietnam, Malaysia, and Indonesia) and South/Central Asia (including India, Pakistan, Afghanistan, and Iran). For each area the course will explore music, dance, and drama--since these are inextricably linked in the Asian context--from four separate yet complementary perspectives: (a) religious life; (b) court traditions; (c) tribal and folk traditions; and (d) popular and contemporary developments. The course will be illustrated with a variety of audio-visual materials and, where possible, live demonstration and/or participation. No previous musical experience is required.
Session: Summer Evening
A. Sanger
Not offered 1994/95

MUSB32F The Classical Music and Culture of North India
Telephone ID #: 22623233
This course examines the classical music of Northern India in the context of Indian culture and history.

The course aims to provide the essential tools for a general appreciation of this ancient art form. It will include multimedia presentations, lecture/demonstrations by performing artists and some direct, hands on experience with the music. Among topics to be discussed are: the guru system vs. institutionalized learning; the development of genres; the traditions of vocal and instrumental 'gharanas' or musical families; the structure of performance and expressive code of the music; the instruments of North Indian music; the place of women in North Indian music; Rag (melody) and Tal (rhythm) and East/West fusions. No previous musical experience is required.
Session: Winter Day
J. Campana
Not offered 1994/95

MUSC01S Interpreting Music
Telephone ID #: 22630153
An introduction to alternative methods of interpreting music.

The study of music has long been dominated by historical style study and complex analytical methods. Recently a number of other approaches has been gaining ground and this course will examine some of these new techniques. The course will begin by examining the work of Joseph Kerman, Edward Cone and Leo Treitler. It will continue by considering Leonard Meyer's use of ideas from gestalt psychology; Deryk Cooke's attempts to interpret music as a language; the many sociological studies that take as their point of departure the work of Theodor Adorno; the contribution of feminist studies and critiques to our understanding of music; the use of methods borrowed from literary criticism, and Jean-Jacques Nattiez's semiotic theory of music. This course includes theoretical discussions.
Prerequisite: MUSA09 (MUSB07) and at least two courses from the series MUSB01-MUSB06.
Session: Winter Day
J. Mayo
Not offered 1994/95 and 1995/96

MUSC14F Stravinsky
Telephone ID #: 22631433
A study of Igor Stravinsky's writings and musical compositions.

Through a detailed examination of selected works by Stravinsky, this course will investigate the manner in which his writings and compositions respond to the turbulence and rapid change of the twentieth century. The discussion will also use an analytical approach to his music in order to come to terms with the apparent diversity of styles during the periods of his

involvement with musical nationalism, primitivism, neo-classicism and serialism.
Prerequisite: MUSA09 (MUSB07) and one course from the series MUSB01-MUSB06.
Session: Winter Day
Wm. R. Bowen
Not offered 1994/95 and 1995/96

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 preregister but will not be admitted to the course unless granted permission of the Instructor during the first week of classes.

MUSB20H Supervised Performance I - Chorus
Telephone ID #: 22622043
The practical study of a wide range of music from the choral repertoire.

Students work as members of Scarborough College Chorus, a chamber choir which performs compositions drawn from the literature of the Renaissance to the present day. The choir gives public performances in 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 MUSB21 and MUSB25.
Prerequisite or Corequisite: Any A-level course in Music, MUSB13, MUSB14, MUSB31, or MUSB32
Session: Winter Day
Wm. R. Bowen and J. Mayo
Offered 1994/95 and 1995/96

MUSB21H Supervised Performance II - Chorus
Telephone ID #: 22622143
A continuation of MUSB20.
Prerequisite: MUSB20
Session: Winter Day
Wm. R. Bowen and J. Mayo
Offered 1994/95 and 1995/96

MUSB22H Supervised Performance I - Instrumental
Telephone ID #: 22622243
The practical study of ensemble performance.

Students work in an ensemble and ensemble performance and it assumes a basic competence on the chosen instrument.

Each group will meet for 2 hours per week for rehearsal with MUSB23 and MUSB26.
Prerequisite or Corequisite: Any A-level course in Music, MUSB13, MUSB14, MUSB31, or MUSB32
Session: Winter Day
C. Walter
Offered 1994/95 and 1995/96

MUSB23H Supervised Performance II - Instrumental
Telephone ID #: 22622343
A continuation of MUSB22.
Prerequisite: MUSB22
Session: Winter Day
C. Walter
Offered 1994/95 and 1995/96

MUSB25H Supervised Performance III - Chorus
Telephone ID #: 22622543
A continuation of MUSB21.

Students in this course meet for three hours per week, two hours with students of MUSB20 and MUSB21 and an hour in a seminar. In this seminar the elements of choral directing and conducting are introduced.
Prerequisite: MUSB21
Session: Winter Day
Wm. R. Bowen and J. Mayo
Offered 1994/95 and 1995/96

MUSB26H Supervised Performance III - Instrumental
Telephone ID #: 22622643
A continuation of MUSB23.

Students in this course meet for three hours per week, two hours with students of MUSB22 and MUSB23 and an hour in a seminar. In this seminar the elements of instrumental directing and conducting are introduced.
Prerequisite: MUSB23
Session: Winter Day
C. Walter
Offered 1993/94 and 1994/95

MUSD01F
MUSD02S
MUSD03Y Independent Studies
A directed reading course for students who have demonstrated a high level of academic maturity and competence.

Qualified students will investigate a field of musical scholarship which is of

with the supervisor for consultation and prepare a 5,000-7,500 word paper for a term course or a 10,000-15,000 word paper for a year course. Students who have demonstrated exceptional ability in MUSA09 and MUSB09 may in certain circumstances pursue a course of composition, producing a portfolio of original works in place of the essay.
Prerequisite: At least two full-course equivalents in music at the B- and C-level; permission of instructor to be obtained by the last date of classes in the previous term.
Session: Winter Day
Co-ordinator: Wm. R. Bowen
Offered 1994/95 and 1995/96

Courses Not Offered in 1993-94

MUSA12F/S Music of the World's Peoples
Exclusion: MUS200
Not offered 1994/95

MUSB01S Music of the Twentieth Century
Exclusion: HMU221
Prerequisite: MUSA01 (MUSB30)
Not offered 1994/95
Offered 1995/96

MUSB02F Music of the Classic Period
Exclusion: HMU122
Prerequisite: MUSA01 (MUSB30)
Offered 1994/95
Not offered 1995/96

MUSB03F Music in the Middle Ages
Exclusion: HMU222
Prerequisite: MUSA01 (MUSB30)
Not offered 1994/95
Offered 1995/96

MUSB06S Music of the Romantic Period
Exclusion: HMU221
Prerequisite: MUSA01 (MUSB30)
Offered 1994/95
Not offered 1995/96

MUSB14F/S Jazz
No previous musical experience is required.
Not offered 1994/95

MUSC05F/S The Symphony
Prerequisite: MUSA01 (MUSB30)
Not offered 1994/95
Offered 1995/96

MUSC09F/S Canadian Music
Prerequisite: MUSA01 (MUSB30)

MUSC11F/S Beethoven
Prerequisite: MUSA01 (MUSB30)
Not offered 1994/95
Offered 1995/96

Neuroscience

Neuroscience encompasses aspects of a variety of disciplines that have the common goal of understanding how the nervous system works. Techniques borrowed from constituent disciplines like anatomy, physiology, biochemistry, psychology and pharmacology are being used to unravel some of the mysteries of the brain and its mechanisms of action. Investigators in Neuroscience have also made fundamental contributions in the clinical aspects of neurodysfunction and behaviour.

The Major and Specialist Programmes in Neuroscience are administered jointly by Psychology and Biology and primarily include courses from these disciplines. They have been designed for students who are interested in pursuing graduate or medical training in Neuroscience. The Specialist Programme has a heavy laboratory component and students are encouraged to become actively involved in ongoing research. The subdisciplines represented at Scarborough Campus include behavioural neuroscience, neuroanatomy, neurophysiology, neurochemistry and cell biology (applied to the nervous system).

Specialist Programme in Neuroscience
Supervisor: G. Ivy (Office: S569)
Note: Entry into this Programme is limited to a maximum of 25 students each year and will be based on grades obtained in PSYA01Y, BIOA03Y, and CHMA02Y.

Balloting for acceptance into the Programme will occur in the Spring term. Acceptance at the end of second year is possible depending on availability of space. Students should consult the Supervisor of Studies.

The Programme requires completion of 14.5 full-course equivalents. Relevant Neuroscience courses from the St. George or Erindale campuses may only be used to satisfy a requirement with the permission of the Supervisor of Studies.

1 All of the following 9.5 full-course equivalents:

CHMA02Y	General Chemistry
PSYB07F/S	Data Analysis in Psychology
or	
STAB22F/S	Statistics
BIOB17Y	Animal Physiology
PSYB60F/S	Brain Mechanisms and Behaviour: I
PSYB65F/S	Human Brain and Behaviour
PSYC61F/S	Brain Mechanisms and Behaviour: II
PSYC63Y	Physiological Psychology Laboratory
PSYC64F/S	Psychobiology of Sensory Systems and Their Development
CHMB44Y	Organic Chemistry I
BIOC35Y	Introductory Biochemistry

2 0.5 full-course equivalent from the following:

MATA26Y	Calculus
PHYA01Y	Principles of Physics
PHYA10F/S	Dynamics of Classical Systems
PHYA11F/S	Electromagnetism and Solid State Devices
CSCA02F/S	How Computers are Used
CSCA06F/S	Computer Basics
CSCA57F/S	Introduction to Scientific Computing
CSCA58F/S	Introduction to Computing

3 At least 1.5 full-course equivalents from the following with no more than 0.5 full-course equivalent from the supervised study courses:

PSYD60F/S	Current Topics in Physiological Psychology
PSYD62F/S	Neuroplasticity: Mechanisms and Function
PSYD67F/S	Psychobiology of Aging
BIOC31F/S	Invertebrate Neurobiology
NROC90/ C93F/S/H	Supervised Study in Neuroscience
NROD98Y	Thesis in Neuroscience

4 At least 1.0 full-course equivalent from the following:

PSYB01F/S	Psychological Research Laboratory
PSYC08F/S	Experimental Design in Psychology
PSYC42F/S	Learning Laboratory
PSYC58F/S	Experimental Psychology
BIOC36H	Laboratory in Biochemistry
BIOB25F/S	Vertebrate Histology: Cells and Tissues
BIOD19F/S	Molecular Biology of the Gene

5 At least 1.0 full-course equivalent from the following:

BIOB05Y	Genetics
BIOB23Y	Developmental Biology
BIOB32F/S	Vertebrate Morphogenesis
BIOC20Y	Cell Biology
(BIOC33F/S)	(General Biology of Vertebrates)
BIOC52F/S	Animal Behaviour
BIOC60F/S	Evolutionary Biology
BIOC70F/S	Theoretical Foundations of Biology I
BIOD18S	Molecular and Classical Cytogenetics
BIOD61S	Evolutionary Genetics

6 At least 1.0 full-course equivalent from the following:

PSYB32F/S	Abnormal Psychology
PSYB50F/S	Sensation and Perception
PSYB51F/S	Perception and Cognition
PSYB57F/S	Memory and Cognition
PSYC85F/S	History of Psychology
PLID55F/S	Disorders of Speech and Language

7 Students planning on graduate work in Neuroscience are advised that undergraduate courses in Physics and Calculus may be required for that graduate programme.

Major Programme in Neuroscience
Supervisor: G. Ivy (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: CHMB44Y and BIOC35Y so that they would be eligible for the Specialist Programme.

The following outline indicates the required courses and the most advantageous sequencing for the Major Programme in Neuroscience.

1 To be completed in the first year of full-time study (or equivalent):

PSYA01Y	Introduction to Psychology
BIOA03Y	Introductory Biology
CHMA02Y	General Chemistry

2 To be completed by the end of the

PSYB07F/S	Data Analysis in Psychology
or	
STAB22F/S	Statistics
PSYB60F/S	Brain Mechanisms and Behaviour I
PSYB65F/S	Human Brain and Behaviour
PSYC61F/S	Brain Mechanisms and Behaviour II
BIOB17Y	Animal Physiology

3 To be completed by the third year of full-time study (or equivalent):

PSYC64F/S	Psychobiology of Sensory Systems and Their Development

One of the following courses:

PSYD60F/S	Current Topics in Physiological Psychology
PSYD62F/S	Neuroplasticity: Mechanisms and Function
PSYD67F/S	Psychobiology of Aging
BIOC31F/S	Invertebrate Neurobiology

NROC90F/S/H
NROC93F/S/H Supervised Study in Neuroscience
A reading or research project.
These courses provide an opportunity to investigate an area in depth after completing basic coverage in regularly scheduled courses. They are not intended as substitutes for advanced courses in fields where these are available. The student must demonstrate that his or her background is adequate for the project proposed and should present a clear rationale to prospective supervisors. Frequent consultation with the supervisor is necessary and extensive library research and/or data collection will be required. Such a project will culminate in a written submission. These courses cannot be repeated for credit.
Prerequisite: Three full-course equivalents in Psychology or Biology; permission of instructor.
Exclusions for NROC90: PSYC90, BIOD01
Exclusions for NROC93: PSYC93, BIOD01
Session: Winter Day
Supervision by a faculty member

NROD98Y 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 November, students will meet to present their own research proposals, to appraise the proposals of others and to discuss the results of their investigation. The individual research project will culminate in a written report in the form of a thesis and a defence of that report.

In addition, students will meet bi-weekly for one hour with Dr. Ivy to discuss problems and progress in their research, to review and critique journal articles and to give oral presentations on various topics in Neuroscience.

Before enroling, students must obtain the signature of their supervisor.
Prerequisite: Satisfactory completion of fifteen full-course equivalents in any discipline, but including PSYB07; one laboratory half-course in Psychology or Biology, consent of a faculty member in Psychology or Biology to serve as research supervisor.
Exclusions: PSYD98, BIOD02
Session: Winter Day
Supervision by a faculty member

Philosophy

Discipline Representative: W.E. Seager (287-7151)
Philosophy consists of a critical analysis of the ideas and concepts fundamental to such major areas of human concern as science, society, religion, morality, and art. Its aim is to scrutinize the basic notions in these areas, to clarify the principles on which they are founded, to evaluate such beliefs for their soundness, and to explore their implications for a comprehensive understanding of the world in which we live. Philosophy originates in the desire to know, and its value consists of the systematic development of a questioning attitude and critical awareness.

PHLA01Y is recommended as an introduction to the field of philosophy in general. It is required for all Majors and Specialists in Philosophy. B-level courses are more specialized in content, but they are open to anyone interested in the topic of the course. All C-level Philosophy courses carry at least a half course pre-requisite in Philosophy.

Course offerings in Philosophy form a two- or three-year cycle: courses not offered in one academic year will normally be available in one of the following years.

areas Fall/Spring sequences are offered which, when combined, provide the equivalent of a full course whose first half is at the B-level, and whose second half is at the C-level. Courses in a sequence are usually scheduled in the same time slot. The B- series of courses is arranged in decade units according to areas within Philosophy, not in order of difficulty, and this arrangement is followed at the C-level (except for seminar courses).

Note to Majors and Specialists:

Many of the philosophy courses can be offered only on a two- or three-year rotation. The courses listed as Not Offered this year are likely to be offered the following year, and some of this year's offerings will be dropped to make room for them. You should try to plan your programme a year or two ahead to be sure of getting the courses you want. See the Discipline Representative for further information. Wednesday 4-6 p.m. is reserved for the Senior Seminar (PHLD01Y).

Cognate Courses

Philosophy students should seriously consider the advantages of studying a language, especially French, German, Greek, or Latin. A sequence of language courses will give students access to much philosophical thought in its original language and to many secondary sources not available in English.

There are a variety of courses in Classics, English, Fine Art, History, and Humanities which will help to supplement the Programmes of many students. In particular, students should consider the following courses: HUMA01Y, Prologue; HISA01Y, European World; ASTA03Y, Introduction to Astronomy. Such courses provide important intellectual and historical background for the study of Philosophy.

Specialist Programme in Philosophy

Supervisor: W.E. Seager (287-7151)

Students must complete at least fourteen full-course equivalents including:

1 PHLA01Y Fundamental Questions of Philosophy
  PHLB01F/S Ethics
  PHLB20F/S Belief, Knowledge, and Truth
  PHLB50F/S Symbolic Logic
  PHLB60F/S Existence and Reality
2 Four half-courses from PHLB40F/S to PHLB48F/S and PHLC40F/S to PHLC48F/S including PHLD01Y, Senior Seminar.
4 Three additional full-course equivalents in Philosophy courses.
5 Two full-course equivalents from cognate courses in other disciplines agreed upon after consultation with the Supervisor. Students are encouraged to follow a sequence of language courses in fulfillment of this requirement

Major Programme in Philosophy

Supervisor: W.E. Seager (287-7151)

Students must complete at least seven full-course equivalents in Philosophy including:

1 PHLA01Y Fundamental Questions of Philosophy
2 Two of the following half-courses:
  PHLB01F/S Ethics
  PHLB20F/S Belief, Knowledge and Truth
  PHLB50F/S Symbolic Logic
  PHLB60F/S Existence and Reality
3 Two half-courses from PHLB40F/S to PHLB48F/S and PHLC40F/S to PHLC48F/S
4 Two full-course equivalents in C-level or D-level Philosophy courses.
5 Two additional full-course equivalents in Philosophy courses.

NOTE:

In certain cases students combining a Major Programme in Philosophy with a Programme in another discipline may elect to modify the Major Programme. Students electing modifications must have the approval of the Supervisor.

PHLA01Y Fundamental Questions of Philosophy

Telephone ID #: 24510163

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

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

The course will be divided into the following lecture sections: L01, L02, L30. The problems addressed are substantially the same in each section, though the readings and approach may vary from section to section, depending on the instructor.

PHLB01F Ethics I

Telephone ID #: 24520133

A study of philosophical problems and postures in ethics, such as the relativity of values, the justification of morality, moral skepticism, ethical egoism, utilitarianism, deontologism.

Exclusion: PHL275, 276

Session: Winter Day

H. Sobel

Offered 1995/96

PHLB03S Philosophy of Art

Telephone ID #: 24520353

What is art? We will examine theories of the nature of art together with critiques of each of these theories. Our exploration will begin with theories from ancient Greece and will conclude with contemporary theories, and will include an examination of theories which proclaim that "art is dead." Students should be prepared to participate in some field trips as we spend some time outside the classroom becoming acquainted with various arts.

Session: Winter Day

S. Sedivy

PHLB05F Social Issues

Telephone ID #: 24520533

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

Exclusion: PHL381

Session: Winter Day

TBA

PHLB13F Philosophy and Feminism

Telephone ID #: 24521333

Study and discussion of a variety of issues in contemporary feminist philosophy, such as: questions of inclusion and exclusion in feminist theory (race, class, sexual orientation, disability, etc.); the masculinization of the rational; causes of women's oppression; epistemological questions, questions of methodology.

Session: Winter Day

L. Lange

Offered every year

PHLB17F Anarchism

Telephone ID #: 24521733

A study of major anarchists and problems of libertarian thought and practice; the impact of anarchism on social, cultural and Goldmann, Chomsky, Bookchin and others.

Session: Winter Evening

W.C. Graham

PHLB20F Belief, Knowledge, and Truth

Telephone ID #: 24522033

An examination of such questions as certainty, the problem of skepticism, the scope and limits of human knowledge, the subjectivity of perception, rationality, and theories of truth.

Exclusion: PHL230

Session: Winter Day

S. Sedivy

Offered every year

PHLB46F Philosophy of the Early Modern Age I

Telephone ID #: 24524633

Philosophy in the seventeenth century. The political, religious, and scientific developments in the sixteenth century upset the medieval reconciliation of faith and reason. In this climate of uncertainty, the philosophers of the seventeenth century try to find a new reconciliation. The course will be a survey of their efforts.

Session: Winter Day

TBA

Offered 1995/96

PHLB48S Philosophy of the Late Modern Age I

Telephone ID #: 24524853

A study of the thought of Hegel, Schopenhauer and Nietzsche, Wittgenstein, and other philosophers whose work is fundamental to the age in which we presently live.

Session: Winter Day

TBA

Offered 1995/96

PHLB50F Symbolic Logic I

Telephone ID #: 24525033

An introduction to formal techniques of reasoning, sentential logic, and quantification theory or predicate logic.

The emphasis is on appreciation of and practice in techniques, for example, for formal analysis of English statements and arguments, and for construction of clear and rigorous proofs. Topics of more theoretical interest are presented in lectures. The text is D. Kalish, R. Montague and G. Mar, *Logic: Techniques of Formal Reasoning*.

Exclusion: (JMPB50), PHL245

Session: Winter Evening

H. Sobel

PHLB60F Metaphysics
Telephone ID #: 24526033
A consideration of problems in metaphysics.

Metaphysics is the attempt to see "how things hang together" in the most general possible sense of this phrase. Some of the issues we will cover: the creation and form of the universe, the nature of truth, the ground of possibility and necessity and their relation and the problem of freedom of the will.
Exclusion: PHL231
Session: Winter Day
W. Seager
Offered every year

PHLB61S Philosophy of Religion
Telephone ID #: 24526153
A study of such topics as the nature and existence of God, immortality, God and morality, and religious language and symbolism.
Session: Winter Day
TBA

PHLB80S Philosophy of Language
Telephone ID #: 24528053
An examination of various philosophical issues raised by the phenomena of language. Topics include: how we can understand one another and form concepts; how words manage to refer to things; and the explication of the nature of linguistic meaning.
Session: Winter Day
W. Seager
Offered 1995/96

PHLB81F Theories of Mind
Telephone ID #: 24528133
An examination of questions concerning the nature of mind and thinking.

Traditionally, the mind has been conceived as a mysterious component of human beings, existing in relative independence from the conditions of physical life. Modern research into the structure and function of the brain have thrown doubts on this view, and work in computer science suggests that minds and thinking can even be attributed to machines.

We will examine the nature of the mind, and such questions as what thinking is, and whether or not machines can have a mind.
Exclusions: PHL240, 242
Session: Winter Evening
S. Sedivy

PHLC40F Plato II
Telephone ID #: 24534033
A continuation of PHLB40.
Prerequisite: At least one half-course in Philosophy.
Session: Winter Day
TBA
Offered 1995/96

PHLC42S Aristotle II
Telephone ID #: 24534253
A continuation of PHLB42H.
Exclusion: (PHLB43)
Prerequisite: At least one half-course in Philosophy
Session: Winter Evening
W. Graham
Offered 1995/96

PHLC52S Modal Logic and Probability
Telephone ID #: 24535253
An introduction to theories of possibility and necessity, probability, and rational decisions.

The logic of possibility and necessity will be studied: both axiomatic and natural deduction treatments will be developed. A theory of probability as a measure of a person's confidence in propositions will be taken up and theories that relate a person's rational decisions to his preferences and probable beliefs will be studied.
Exclusion: PHL246
Prerequisite: PHLB50
Session: Winter Day
J.H. Sobel

PHLC85S Seminar in Philosophy: Feminism
Telephone ID #: 24538553
Selected themes in the philosophical tradition in dialogue with central issues in contemporary feminist theory. These may include: critical discussion of themes from Plato to Freud which have been used to justify the subordination of women; theories of how gendered individuals are created; feminist conceptions of self, autonomy, ethics, or the state.
Exclusion: PHL267
Prerequisite: Two B-level half-courses in Philosophy.
Session: Winter Day
L. Lange

PHLC87F Seminar in Philosophy: Topics in Philosophy and Literature
Telephone ID #: 24538733
A detailed description of this course will be available in Spring 1993.
Session: Winter Evening

PHLC91S Seminar in Philosophy: Theories of Human Nature
Telephone ID #: 24539153
An exploration of theories which provide answers to the question "What is a human being?." These answers probe and develop the sorts of catch-phrase definitions to which we are all accustomed: "Man is a rational animal," "Man is a political animal," "Man is inherently individual," "Man is inherently social." Theories of human nature bring together considerations from ethics, political philosophy, metaphysics and philosophy of mind (and so acquaintance with some subset of these areas is required). We will study a wide variety of works, including among others, Aristotle, Hobbes, Rousseau, Marx and Freud.
Prerequisite: PHLA01Y and any two of PHLB01, PHLB10, PHLB60, PHLB81 or permission of instuctor.
Session: Winter Evening
S. Sedivy

PHLC94S Seminar in Philosophy: Locke, Berkeley, Hume
Telephone ID #: 24539453
Details of this course will be announced at a later date.
Session: Winter Day
J.H. Sobel

PHLD01Y Senior Seminar
Telephone ID #: 24540163
A discussion of topics of current research interest of the philosophy faculty at Scarborough College. The course will focus on 4 or 5 particular issues drawn from a traditional range of philosophical topics, such as: metaphysics, ethics, political philosophy, epistemology and value theory. The course is designed to provide students, particularly but not exclusively specialists, a forum in which they can participate in current philosophical research and engage directly with the faculty in a small group.
Prerequisite: at least six full-course equivalents in philosophy.
Session: Winter Day
Faculty
Offered every year

PHLD10Y Senior Thesis
Telephone ID #: 24541063
An opportunity for you to engage in philosophical research and to write a major philosophical essay on a topic approved by the faculty in Philosophy bibliography, to the Programme Supervisor before the end of the second week of the fall term (ideally, before the end of the previous spring term). If the topic is approved you will consult with relevant faculty members during your work on the thesis.

In the spring term, and before submitting the completed thesis for evaluation, you will present a seminar report on your work to fellow students and staff. The seminar must be held prior to the final two weeks of classes, and you are responsible for setting a date for it in consultation with the Programme Supervisor. The thesis will be evaluated by at least two philosophy faculty members.
Prerequisite: you should be completing the last year of a four year (twenty course) degree, and have at least six full-course equivalents in philosophy, at least two at the C level.
Session: Winter Day
Staff

PHLD95F/S
PHLD96F/S
PHLD97F/S
PHLD98F/S
PHLD99Y Independent Studies
These courses are designed for students who wish to engage in advanced-level work on a well-defined topic. Hence, when requesting permission of the Programme Supervisor, students will be required to provide a written 200-300-word proposal which must include: a rationale for including the course in his/her programme of study, a clear indication of what he/she expects to achieve in the course, and a tentative bibliography. Students who require assistance should consult with the Programme Supervisor.

Note: Independent studies courses are normally open to Majors and Specialists in Philosophy during their final five full courses of study. Application should be made to the Programme Supervisor, preferably in the preceding term, stating the topic to be pursued in a description of about one page. The Supervisor will arrange to have the study directed by an appropriate member of faculty.
Prerequisite: At least 3 full-course equivalents in Philosophy including at least one at the C-level; permission of Supervisor.
Exclusion: (PHLC95-C99)
Session: Winter Day
Staff

Courses Not Offered in 1993-94

PHLB10F/S	Political Philosophy
PHLB11F/S	Philosophy of Law
PHLB15F/S	Philosophy of Education Exclusion: PHL315
PHLB40F/S	Plato I
PHLB42F/S	Aristotle I
PHLB70F/S	Philosophy of Science
PHLC01F/S	Ethics II
PHLC46F/S	Philosophy of the Early Modern Age II
PHLC48F/S	Philosophy of the Late Modern Age II
PHLC51F/S	Symbolic Logic II Exclusion: (JMPC51) Prerequisite: PHLB50 (JMPB50)
PHLC54F/S	Metalogic

Physical Sciences Scarborough

Physical Sciences Scarborough 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 Scarborough programme takes place in first year.

The following 15 programmes lie within the Physical Sciences Scarborough group:
Astronomy, Mathematics and Physics
Chemistry
Chemistry and Biochemistry
Computer Science
Computer Science and Mathematics
Computer Science and Physics
Computer Science and Statistics
Co-op Computer Science and Physical Science
Environmental Earth Science
Environmental Science
Co-op Environmental Science
Environmental Chemistry
Mathematics
Mathematics and Statistics
Physical Sciences

Most programmes cover at least two cognate disciplines, and as a result 14 to 17 courses must be specified in a 20 course programme. Introductory courses in Physics and Calculus form a basis for all courses depends on the individual programme, ranging from the mathematically oriented programmes to the one 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 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.

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 Scarborough 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 Scarborough 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 workshop/seminar component organized jointly by Scarborough College 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 Scarborough Specialist Programme with a 2.5 GPA standing in the best fifteen full course equivalents will guarantee admission to the Faculty of Education for at least thirty students each year.

Specialist Programme in Astronomy, Mathematics and Physics

Supervisors: C. C. Dyer, M. J. G. Lee

This programme requires 16 full-course equivalents as listed below. The

pursue a career in teaching or to acquire a broad understanding in these subjects before undertaking a career in government or industry.

First year:

ASTA03Y	Introduction to Astronomy
CSCA57S	Introduction to Scientific Computing
MATA04Y	Linear Algebra
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

Second year:

ASTB50S	Celestial and Classical Mechanics
CSCB58S	Computer Organization
MATB30F	Geometry I
MATB31F	Algebra I
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
MATB43S	Introduction to Analysis
PHYB21S	Electricity and Magnetism

Third year:

ASTC50F	Structure and Evolution of Astrophysical Bodies
MATC51F	Differential Equations I
MATC56S	Differential Equations II
PHYB22S	Electronics
PHYB23H	Physics Laboratory
PSCC01H	Modern Applications of Classical Science
STAB22F	Statistics
STAB47S	Introduction to Probability Theory and Mathematical Statistics

Fourth year:

ASTC51S	Stellar Systems, Galaxies and Cosmology
CSCC50F	Numerical Algebra and Optimization
CSCC51S	Numerical Approximation
PHYC21F	Classical and Quantum Waves
PHYC22S	Structure of Matter
PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science

*PHY110 is **not** an acceptable substitute.

Specialist Programme in Chemistry

Supervisor: A. Walker (287-7225)

This is the most general of the Chemistry Specialist Programmes and provides the

First year:

CHMA02Y	General Chemistry
CSCA57S	Introduction to Scientific Computing
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

Second year:

CHMB11Y	Analytical Chemistry I
CHMB22Y	Physical Chemistry I
CHMB33Y	Inorganic Chemistry I
CHMB44Y	Organic Chemistry I
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II

Third year:

CHMC22F	Physical Chemistry II
CHMC26F	Physical Chemistry Lab
CHMC33S	Inorganic Chemistry II
CHMC36S	Inorganic Chemistry Lab
CHMC44Y	Organic Chemistry II

and either

CHMC25S	Physical Environmental Chemistry

or

CHMC35F	Inorganic Environmental Chemistry

Fourth year:

2.0 full-course equivalents from:

CHMD33S	Inorganic Special Topics
CHMD34S	Organometallic Catalysis
CHMD42S	Organic - Physical
CHMD44S	Organic Special Topics
CHMD88Y	Research
CHMD90Y	Library Thesis
CHMD91H	Library Thesis
CHM400 series	

1.0 full-course equivalent from:
CHM319H, CHM325H, CHM336H, CHM346H, CHM347H, CHM400 series

PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science

*PHY110 is **not** an acceptable substitute.

Specialist Programme in Chemistry and Biochemistry

Supervisor: A. Walker (287-7225)

This Programme places greater emphasis on

study the chemistry of living systems. The Programme requires 16 F.C.E.'s.

Note: Entry to all fourth year Biochemistry courses is by ballot only.

First year:

BIOA03Y	Introductory Biology
CHMA02Y	General Chemistry
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

Second year:

CHMB11Y	Analytical Chemistry I
CHMB22Y	Physical Chemistry I
CHMB33Y	Inorganic Chemistry I
CHMB44Y	Organic Chemistry I
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II

Third year:

CHMC44Y	Organic Chemistry II
BIOC35Y	Biochemistry
BIOC36H	Biochemistry Lab

and either

CHMC22F	Physical Chemistry II
CHMC26F	Physical Chemistry Lab

or

CHMC33S	Inorganic Chemistry II
CHMC36S	Inorganic Chemistry Lab

Fourth year:

CHM347H	Organic Chemistry of Biological Compounds

and either

CHM447H	Bio-organic Chemistry

or

BCH424H	Bio-organic Mechanisms

1.5 full-course equivalents from:

CHMD33S	Inorganic Special Topics
CHMD34S	Organometallic Catalysis
CHMD42S	Organic - Physical
CHMD44S	Organic Special Topics
CHMD88Y	Research
CHMD90Y	Library Thesis
CHMD91H	Library Thesis
CHM400 series	
BCH400 series	

*PHY110 is **not** an acceptable substitute.

Specialist Programme in Environmental Chemistry

Supervisor: K. Henderson (287-7215)

This Programme is designed for students interested in problems of our environment and the role that chemistry plays in their causation, detection and solution. This programme requires 15.5 F.C.E.'s.

First year:

BIOA03Y	Introductory Biology
CHMA02Y	General Chemistry
EESA05F	Planet Earth: An Introduction to Geology
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

Second year:

CHMB11Y	Analytical Chemistry I
CHMB22Y	Physical Chemistry I
CHMB33Y	Inorganic Chemistry I
CHMB44Y	Organic Chemistry I
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II

Third year:

BIOB14F	Environmental Biology
CHMC25S	Physical Environmental Chemistry
CHMC35F	Inorganic Environmental Chemistry
CHM319H	Instrumental Analysis

and 1 F.C.E. chosen from

CHMC22F	Physical Chemistry II
CHMC26F	Physical Chemistry Lab

or

CHMC33S	Inorganic Chemistry II
CHMC36S	Inorganic Chemistry Lab

or

CHMC44Y	Organic Chemistry II

Fourth year:

CHM416H	Separation Science
EESD02S	Contaminant Hydrogeology
GLG400H	Environmental Geochemical Analysis
PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science

students should take C level environmental chemistry courses and **not** CHMB55.

Specialist Programme in Computer Science

Supervisor: G. Cupit (287-7253)

This programme provides a broadly 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	Introduction to Computing
MATA04Y	Linear Algebra
MATA26Y	Calculus
PHYA01Y	Principles of Physics*
or	
PHYA11S	Electromagnetism and Solid State Devices

First or Second Year: CSCB70 - Computer Applications.

Second year:

CSCB28F	File Structures and Data Management
CSCB38F	Discrete Mathematics
CSCB58S	Computer Organization
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
MATB43S	Introduction to Analysis

Third year:

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

one of:
MATB31F, MATC51F, MATC60F

Fourth year:

CSCB09S	Software Tools
CSCC50F	Numerical Algebra and Optimization
CSCC51S	Numerical Approximation, Integration and Ordinary Differential Equations
CSCC85S	Microprocessors

one of:
CSCC54F, 349, 372, 418, 420, 434, 444

one of:
CSC438, 448 465, 478, MATC31F, C32F

PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science

*PHY110 is **not** an acceptable substitute.

Specialist Programme in Computer Science and Mathematics

Supervisor: G. Cupit (287-7253)

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

First year:

CSCA58F	Introduction to Computing
MATA04Y	Linear Algebra
MATA26Y	Calculus
PHYA01Y	Principles of Physics*
or	
PHYA11S	Electromagnetism and Solid State Devices

First or Second Year: CSCB70S -Computer Applications

Second year:

CSCB38F	Discrete Mathematics
CSCB58S	Computer Organization
MATB30F	Geometry I
MATB31F	Algebra I
MATB32S	Algebra II
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
MATB43S	Introduction to Analysis

Third year:

CSCC24S	Principles of Programming Languages
CSCC64S	Effective and Efficient Computing
CSCC78F	Data Structures and Algorithm Analysis
MATC49F	Galois Theory
MATC51F	Differential Equations I
MATC56S	Differential Equations II
STAB22F	Statistics
STAB47S	Introduction to Probability Theory and Mathematical Statistics

95 Cal 978-5133

and two of:
MATC65S, CSCC50F, CSCC51S
One other 0.5 course in Computer Science

one of:
MATB70S, C30S, C31F, C32F

PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science

*PHY110 is **not** an acceptable substitute.

Specialist Programme in Computer Science and Statistics
Supervisor: S. Chawla (287-7252)
The Specialist Programme in Computer Science and Statistics provides a student with the computational and statistical background required in many applications of these fields. The Programme prepares students for employment opportunities in business, government and education and for further graduate study. This Programme is also an option available in the Co-op Computer Science and Physical Sciences Programme. See listing under Co-op.

First year:

CSCA58F	Introduction to Computing
MATA04Y	Linear Algebra
MATA26Y	Calculus
PHYA01Y	Principles of Physics*
or	
PHYA11S	Electromagnetism and Solid State Devices

First or Second Year: CSCB70S-Computer Applications.

Second year:

CSCB28F	File Structures and Data Management
CSCB38F	Discrete Mathematics
CSCB58S	Computer Organization
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
MATB43S	Introduction to Analysis
STAB22F	Statistics
STAB47S	Introduction to Probability Theory and Mathematical Statistics

Third year:

CSCC24S	Principles of Programming Languages
CSCC64S	Effective and Efficient

STAC42S, STAC52S, STAC67F
or
STAC57S, STAC62F, STAC67F

1 half course to be taken from C level STA courses at Scarborough, CSCC54F, and 300 and 400 level STA courses on the St. George campus.

Fourth year:

CSCC50F	Numerical Algebra and Optimization
CSCC51S	Numerical Approximation, Integration and Ordinary Differential Equations

STAC42S, STAC52S, STAC67F
or
STAC57S, STAC62F, STAC67F

PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science

1 half course to be taken from C level STA courses at Scarborough, CSCC54F, and 300 and 400 level STA courses on the St. George campus.

*PHY110 is **not** an acceptable substitute

Specialist Programme in Computer Science and Physics
Supervisor: C. C. Dyer
This Programme is also available as an option in the Co-op Computer Science and Physical Sciences Programme. See listing under Co-op.

First year:

CSCA58F	Introduction to Computing
MATA04Y	Linear Algebra
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

First or Second Year: CSCB70S-Computer Applications

Second year:

CSCB28F	File Structure and Data Management
CSCB38F	Discrete Mathematics
CSCB58S	Computer Organization
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
PHYB21S	Electricity and Magnetism
PHYB22S	Electronics
PHYB23H	Physics Laboratory

Third year:

CSCB09S	Software Tools
CSCC24S	Principles of Programming Languages
CSCC50F	Numerical Algebra and Optimization
CSCC78F	Data Structures and Algorithm Analysis
CSCC85S	Microprocessors
MATC51F	Differential Equations I
PHLB70F	Philosophy of Science
PSCC01H	Modern Applications of Classical Science

Fourth year:

CSCC51S	Numerical Approximation, Integration and Ordinary Differential Equations
CSCC64S	Effective and Efficient Computing
PHYC21F	Classical and Quantum Waves
PHYC22S	Structure of Matter

One more full-course equivalent from other C-level Physical Science Division courses

PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science

*PHY110 is **not** an acceptable substitute.

Specialist Co-operative Programme in Computer Science and Physical Sciences
Director: H. Wittmann (287-7107)
Co-ordinator: G. Cupit (287-7253)
Supervisor of Studies: C. Dyer (287-7206)
The Co-operative Programme in Computer Science and Physical Sciences is a work-study programme which combines academic studies in computer science, and other disciplines in the physical sciences with work placements in public and private enterprises. The programme alternates study during the regular academic term (September to May) with work terms during the summer term (May to August).

The programme prepares students for permanent employment with government and business enterprises concerned with research and technology as well as for graduate study in Computer Science. Graduates receive a four-year B.Sc. with a specialist certification in Computer Science and Physical Sciences.

Admission to the Programme

a. Applicants from Grade 13/OAC programmes (or equivalent) should indicate their choice of Scarborough for Admission to an Ontario University. They will then be sent a special application form for admission to a co-operative programme.
b. From First-year University: Students accepted by the University and College may apply whether or not they have completed the first year curriculum. The timing of their work placement will depend upon the particular university courses they have already completed.

Admissions are granted on the basis of the applicants' academic performance, background in relevant subjects, and a letter of reference from a high school teacher or university instructor. An interview may be required. Enrolment is limited and only a small number of applicants can be accepted each year. Decisions about admissions are normally made annually in May and early June. **To be considered for the first round of selection, co-op applications must be received by April 30, 1993. Therefore it is essential that the applicant apply to the University at least six weeks prior to this date.**
Fees: Every student in a co-operative programme is required to pay additional fees as established by the University.

The Specialist (Co-operative) Programme in Computer Science and Physical Sciences
This programme requires twenty courses (four years) of study and two work terms of four months each. Exceptionally, with the agreement of the director and co-ordinator, a third work term may be allowed. Students are eligible for their first work term after their first two years of study. Work placements are arranged by the Office of Co-operative Programmes but 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 for evaluation a report for each work term.

To maintain standing in the programme, to be eligible for a work term, and to receive specialist certification upon graduation a student must

- maintain a cumulative grade point average of at least 2.50
- receive a satisfactory evaluation for work term performance and work term reports
- be registered as a full-time student during study terms

B: Computer Science and Statistics. Note that courses need not be taken in exactly the indicated order, but if an alternative ordering is adopted, care must be taken to ensure that prerequisites are satisfied and other conflicts avoided.
EACH STUDENT'S PROGRAMME REQUIRES THE ANNUAL APPROVAL OF THE SUPERVISOR OF STUDIES.

Option A Computer Science and Physics
16 required courses

First Year CSCA58F,MATA04Y, MATA26Y, PHYA01Y*

First or Second Year: CSCB70S-Computer Applications.

Second Year CSCB28S,CSCB38F, CSCB58F, MATB41F and MATB42S or MATB05Y, PHYB21S, PHYB22S, PHYB23H

Third Year ** CSCB09S, CSCC24S, CSCC50F, CSCC78F, CSCC85S, MATC51F, PHLB70F, PSCC01H

Fourth Year ** CSCC51S, CSCC64S, PHYC21F, PHYC22S, PSCD01F, PSCD02S, one full-course equivalent chosen from other C level Physical Sciences Division courses

*PHY110 is **not** an acceptable substitute
** Students currently registered in year three or year four of the programme should consult the 1990/91 *Calendar* and the programme supervisor.

Option B Computer Science and Statistics
14.5 required courses

First Year CSCA58F, MATA04Y, MATA26Y, PHYA01Y* or PHYA11S

First or Second Year: CSCB70S-Computer Applications

Second Year CSCB28F, CSCB38F, CSCB58S, MATB41F, MATB42S, MATB43S, STAC42S) or (STAC62F, STAC57S and STAC67S), plus one half-course equivalent from C level statistics courses, CSCC54F, and 300 and 400 level statistics courses on the St. George Campus

Fourth Year CSCC50F, CSCC51S, PSCD01F, PSCD02S, (STAC67F,STAC52S and STAC42S) or (STAC62F,STAC57S and STAC67F), plus one half-course equivalent from C level statistics courses, CSCC54F, and 300 and 400 level statistics courses on the St. George Campus

*PHY110 is **not** an acceptable substitute.

NOTE: STUDENTS ARE INDIVIDUALLY RESPONSIBLE TO ENSURE THAT THEY HAVE CORRECTLY COMPLETED PROGRAMME AND DEGREE REQUIREMENTS FOR GRADUATION.

Eligibility for work placements
To compete for work term placement a student must be in good standing in the Programme and must have completed at least ten full-course equivalents.

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

CSPC01-C03H 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 terms to enhance academic studies and develop professional and personal skills. Work term reports are required at the completion of each work term.
Continuation in a Co-op Programme is based on a student's ability to meet both the academic and work term requirements. To be eligible for work terms, students must be in good standing in the Programme and must have completed 10 courses. Course credit of 0.5 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 graded on a Credit, No Credit system. There are no additional course fees for work terms.

Specialist Co-operative Programme in Environmental Science
(This programme is scheduled to begin in 1994/95, pending the approval of the Governing Council.)
Director: H. Wittman
Supervisor of Studies: T. Price (287-7327)
The Co-operative Programme has a strong basis in fundamental sciences such as Physics, Mathematics and Chemistry, but emphasizes environmental disciplines such as Biology, Geography and Geology. 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 are entirely in the field. As an extension of this, the Co-operative Programme placements will assure the necessary practical experience. There are obvious linkages between the Co-operative Environmental Science programme and other Co-operative programmes such as the International Development Studies programme; the linkages between development and environmental issues are already generally acknowledged. The overall purpose of the programme is to provide education and training which will produce highly qualified scientists with good practical and field experience through course work and placement, with a view to employment in research, teaching, consultancy, government agency or regulatory work.
This Programme provides both the formal course material of a Specialist programme with 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.
Refer to Specialist Programme in Environmental Science for course programme details.

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 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. **This co-op application must be received by the Scarborough College Registrar's Office no later than April 15, 1994, to ensure an applicant's consideration. In order to allow sufficient time for processing, it is therefore important that the applicant apply to the University of Toronto by March 1.**

Note that enrolment in the programme is limited. Admission is considered on the basis of the applicants' academic performance, background in relevant subjects, and a letter of reference from a high school teacher or university instructor. An interview is required.

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

Specialist Programme in Environmental Science
(This programme is scheduled to begin in 1993/94, pending the approval of the Governing Council.)
Supervisor: T. Price (287-7327)
This programme is a response to strong student interest, and also to the new attitudes and demands of society. It has a strong basis in fundamental sciences such as Physics, Mathematics and Chemistry, but emphasizes environmental disciplines such as Biology, Geography and Geology. The programme is interdisciplinary in nature, and as well as its "mainstream" content, includes courses in other relevant disciplines, such as Environmental Economics and Environmental Law. One of the major emphases of the programme is the importance of fieldwork and practical experience. Many of the courses reflect this, having strong field components; some are entirely in the field. There are obvious linkages between the Environmental Science programme and other programmes such as the International Development Studies programme; the linkages between development and environmental issues are already generally acknowledged. The overall purpose of the programme is to provide education and training which will produce highly qualified scientists with good practical and field experience.

Year I: Baseline Studies in Environmental Science

First year:

CHMA02Y	General Chemistry
EESA01F	Introduction to Environmental Science
EESA02S	Introduction to Physical Geography
EESA04F	Life On Earth: Introductory Biology for Environmental Scientists*.
or	
BIOA03Y	Introductory Biology
EESA03F	Planet Earth: An Introduction to Geology
MATA26Y	Calculus
PHYA10F	Dynamics of Classical Systems
Elective:	1/2 F.C.E.

Year II: An Introduction to Environmental Systems

Second Year:

BIOB12Y	Fundamentals of Ecology
CHMB55H	Environmental Chemistry
EESB01S	Principles of Stratigraphy and Sedimentology
EESB02F	General Geomorphology
EESB03S	Principles of Climatology
EESB04F	Hydrology: Measurement, Estimation and Forecasting
STAB22F	Statistics
Elective:	1 F.C.E.

Year III: Environmental Systems

Third Year:

GGRC41F	Environmental Impact Assessment
EESB05F	Introduction to Soil Science
EESC03H	Remote Sensing and Geographic Information Systems
EESC04H	Biogeography and Diversity

Plus 1 F.C.E. from each of the following two subsets:

I.

EESB06S	Field Camp I
EESC05H	Coastal Geomorphology
EESC06H	Quaternary Environments
EESC07F	Exploration Techniques in Hydrogeology
EESC09H	Paleoenvironmental Determination
EESC10S	Soil Management in Temperate Regions
EESC11S	Tropical Soil Management and International Development
EESC12F	Glacial and Periglacial

II.

BIOB14H	Environmental Biology
BIOC03F	Field Course in Ecology
BIOD15F	River Ecology
BIOC16H	Marine Biology - Habitats and Communities
BIOC19H	Limnology
BIOC46H	Plant Population Ecology
BIOC99H	Advanced Field Course in Ecology

Elective Suggestions: 1 F.C.E.

ANTB01H	Ecological Anthropology I
ANTC41H	Human Adaptability I
BIOC60H	Evolutionary Biology
HUMB01Y	Environment and Human Life I

Year IV: Environmental Systems and Issues

Fourth Year:

EESC01F	Environmental Economics and Law
EESD01S	Research Seminar in Earth and Environmental Science
PSCD01F	Policy Issues in Mathematics and Science

Plus 2 F.C.E.'s from:

BIOB32F	Vertebrate Morphogenesis
BIOC18S	Microbes in the Environment
BIOC29F	Invertebrate Zoology
BIOC30S	The Arthropoda
BIOC52F	Animal Behaviour
BIOC65H	Conservation Biology
BIOC68S	Environmental Toxicology
BIOC70F	Theoretical Foundations of Biology I
BIOC71S	Theoretical Foundations of Biology II
EESD02S	Contaminant Hydrogeology
EESD03S	Theoretical Geomorphology
EESD04S	Sedimentary Models
EESD05H	Hillslope Geomorphology
EESD06H	Climatic Change
EESD07F	Field Camp II: Western Prairies and Rocky Mountains
EESD08F	Urban Geology of Metropolitan Toronto
EESD09H /D10Y	Research Project
EESD11S	Hydrology: Physical Processes and Modelling
EESD12F	Environmental Geophysics

Elective: Suggestions: 1.5 F.C.E.

GGRD02F	Environmental Philosophies

POLB68F	Comparative Intergovernmental Relations: Environment Policy
IDSB02S	Physical and Ecological Resource Management
SOCC37S	Environment and Society

* **BIOA03Y** is acceptable as an alternative to EESA04F. Students interested in pursuing more of a biological emphasis within the Environmental Science programme are encouraged to take BIOA03Y.

Specialist Programme in Environmental Earth Science

Supervisor: N. Eyles (287-7231)

There is an escalating demand in industry, education and government for graduates with an environmental geology training. The Environmental Earth Science Specialist Programme provides students with a comprehensive multidisciplinary background necessary to understand and work with current environmental problems. The programme specifies 15.5 of the 20 courses required for a four-year degree, drawing on expertise and facilities both on the Scarborough and St. George Campuses. The programme includes two field courses, each of two weeks duration, taken at the end of the second and third years. These will familiarize students with field techniques in a wide range of geological environments. Locations vary; in recent years field camps have been held in Costa Rica and the Rocky Mountains of Alberta and British Columbia.

Several other courses in the Environmental Earth Science Programme contain a local fieldwork component concerned with environmental problems in the Toronto area.

First year:

BIOA03Y	Introductory Biology
CHMA02Y	General Chemistry
EESA03F	Planet Earth: An Introduction to Earth Science.
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

Second year:

CHMB11Y	Analytical Chemistry I
or	
CHMB22Y	Physical Chemistry I
EESB01S	Stratigraphy and Sedimentology
EESB02F	General Geomorphology
EESB06S	Field Camp I
MATB41F	Techniques of the Calculus of Several Variables I

Third year:

CHMB44Y	Organic Chemistry I
GLG332F	Structural Geology
GLG318F	Petrology I
GLG319S	Petrology II
GLG400H	Environmental Geochemical Analysis
EESB04F	Hydrology: Measurement, Estimation and Forecasting
EESD11S	Hydrology: Physical Processes and Modelling

Fourth year:

CHMC25H	Physical Environmental Chemistry
or	
CHMC35H	Inorganic Environmental Chemistry
EESC07F	Exploration Techniques in Hydrogeology
EESC12F	Glacial & Periglacial Geology
EESD02S	Contaminant Hydrogeology
EESD07F	Field Camp II
PSCD01F	Policy Issues in Mathematics and Science

*PHY110 is **not** an acceptable substitute.

Specialist Programme in Terrain and Environmental Earth Science (TEES)

Refer to Environmental Earth Science Specialist Programme

Specialist Programme in Geography

Refer to Environmental Science Specialist Programmes

Specialist Programme in Mathematics

Supervisor: E. Moore (287-7267)

The Specialist Programme in Mathematics is designed to give students a thorough grounding in the main areas of Mathematics, together with an understanding of the close relationship between Mathematics and other Sciences. It is aimed at students who may be interested in teaching, law, government or industry, or who may decide to pursue a career in research.

First year:

CSCA58F	Introduction to Computing
MATA04Y	Linear Algebra
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

First or second year: CSCB70S-Computer

Second year:

MATB30F	Geometry I
MATB31F	Algebra I
MATB32S	Algebra II
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
MATB43S	Introduction to Analysis
STAB22F	Statistics

one of:
CSCB58S, PHYB21S, STAB47S

Third year:

MATC49F	Galois Theory
MATC51F	Differential Equations I
MATC56S	Differential Equations II

MATC53Y Real Analysis
or
MATC60F, MATC65S

three of:
MATB70S, C30S, C31F, C32F, C54F
Any additional CSC 0.5 course
Any additional STA 0.5 course

Fourth year:
MATC53Y or MATC60F
and
MATC65S

two of:
CSCC50F, CSCC51S, MATB70S, C30S, C31F, C32F, C54F

PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science.

*PHY110 is **not** an acceptable substitute

Specialist Programme in Mathematics and Statistics
Supervisor: S. Chawla (287-7252)
The Specialist Programme in Mathematics and Statistics provides a student with the mathematical and statistical background for a sound understanding of statistical theory and practice. The Programme prepares students for employment opportunities in business, government and education and for graduate study.

First year:

CSCA58F	Introduction to Computing
MATA04Y	Linear Algebra
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

First or second year: CSCB70S-Computer Applications.

Second year:

MATB31F	Algebra I
MATB32S	Algebra II
MATB30F	Geometry
MATB41F	Multivariate Calculus I
MATB42S	Multivariate Calculus II
MATB43S	Introduction to Analysis
STAB22F	Statistics
STAB47S	Introduction to Probability Theory and Mathematical Statistics

Third year:

MATC49F	Galois Theory
MATC51F	Differential Equations I
MATC56S	Differential Equations II

STAC57S, STAC62F, STAC67F
or
STAC42S, STAC67F,STAC52S

1 half course to be taken from C level STA courses at Scarborough, CSCC54F, 300 and 400 level STA courses on the St. George campus.

Fourth year:
MATC53Y Real Analysis
or

MATC60F	Complex Analysis I
MATC65S	Complex Analysis II

1 additional MAT half course

STAC57S, STAC62F, STAC67F
or
STAC42S, STAC67F,STAC52S

PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science

1 half course to be taken from C level STA courses at Scarborough, CSCC54F, 300 and 400 level STA courses on the St. George campus.

*PHY110 is **not** an acceptable substitute.

Specialist Programme in Physical Sciences
Supervisors: C. C. Dyer, M.J. G. Lee
This Programme requires 16 full-course equivalents. The programme provides a broad introduction to Astronomy, Chemistry and Physics based upon a firm mathematical foundation. It is intended for students who may wish to pursue a career in teaching or in one or more of the Physical Sciences or to acquire a basic understanding of the Physical Sciences before undertaking a career in government or industry.

First year:

ASTA03Y	Introduction to Astronomy
CHMA02Y	Chemistry
CSCA57S	Introduction to Scientific Computing
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

Second year:

ASTB50S	Celestial and Classical Mechanics
CHMB11Y	Analytical Chemistry I
CSCB58S	Computer Organization
MATB41F	Multivariate Calculus I
MATB42S	Multivariate Calculus II
PHYB21S	Electricity and Magnetism
STAB22F	Statistics

Third year:

ASTC50F	Structure and Evolution of Astrophysical Bodies
CHMB22Y	Physical Chemistry I
PHLB70F	Philosophy of Science
PHYB22S	Electronics
PHYB23H	Physics Laboratory
PSCC01H	Modern Applications of Classical Science

Fourth year:

ASTC51S	Stellar Systems, Galaxies and Cosmology
CHMB33Y	Inorganic Chemistry I
or	
CHMB44Y	Organic Chemistry I
CSCC50F	Numerical Algebra and Optimization
or	
CSCC51S	Numerical Approximation
PHYC21F	Classical and Quantum Waves
PHYC22S	Structure of Matter
PSCD01F	Policy Issues
PSCD02S	Current Questions in Mathematics and Science

*PHY110 is **not** an acceptable substitute.

Major Programme in Astronomy and Physics
Supervisors: C. C. Dyer, M. J. G. Lee
In this Programme, students must complete 8 full- course equivalents in astronomy, mathematics and physics as listed below. After completing the programme, students will have a good education in the basic principles and applications of modern astronomy and physics. It is intended for those who desire a basic understanding of these subjects but who do not plan to pursue graduate studies.

First year:

ASTA03Y	Introduction to Astronomy
MATA26Y	Calculus
PHYA01Y	Principles of Physics*

Second year:

ASTB50S	Celestial and Classical Mechanics
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
PHYB21S	Electricity and Magnetism
PHYB23H	Physics Laboratory

Third year:

ASTC50F	Structure and Evolution of Astrophysical Bodies
ASTC51S	Stellar Systems, Galaxies and Cosmology
PHYC21F	Classical and Quantum Waves
PHYC22S	Structure of Matter
PSCC01H	Modern Application of Classical Science

*PHY110 is **not** an acceptable substitute.

Major Programme in Chemistry
Supervisor: A. Verner (287-7224)
This is the most general Major Programme offered. With its wide selection of options, it offers the possibility of obtaining an introduction to all of the subdisciplines of chemistry.
Students should complete the following eight courses:

First year:

CHMA02Y	General Chemistry
MATA26Y	Calculus
PHYA01Y	Principles of Physics*
or	
PHYA10F	Dynamics of Classical Systems
and	
PHYA11S	Solid State Devices

Second and Third years: One of the following Sets of options must be taken:

Inorganic/Organic

CHMB11Y	Analytical Chemistry I
CHMB33Y	Inorganic Chemistry I
CHMB44Y	Organic Chemistry I
CHMC33S	Inorganic Chemistry II
CHMC36S	Inorganic Chemistry Laboratory
CHMC44Y	Organic Chemistry II

Physical Organic

CHMB22Y	Physical Chemistry I

CHMB44Y	Organic Chemistry I
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
CHMC22F	Physical Chemistry II
CHMC26F	Physical Chemistry Laboratory
CHMC44Y	Organic Chemistry II

Physical Inorganic

CHMB11Y	Analytical Chemistry I
CHMB22Y	Physical Chemistry I
CHMB33Y	Inorganic Chemistry I
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II

and either

CHMC22F	Physical Chemistry II
CHMC26F	Physical Chemistry Laboratory

or

CHMC33S	Inorganic Chemistry II
CHMC36S	Inorganic Chemistry Laboratory

Chemistry

CHMB11Y	Analytical Chemistry I
CHMB22Y	Physical Chemistry I
CHMB33Y	Inorganic Chemistry I
CHMB44Y	Organic Chemistry I

One full-course equivalent C-level Chemistry Course*** which includes a laboratory.

*PHY110 is **not** an acceptable substitute.

*** Students should note that if they are going to select CHMC22F, CHMC26F then MATB41F and MATB42S are required as prerequisites.

Major Programme in Biochemistry

Supervisor: J. Potter (287-7222)

This Programme places a greater emphasis on the biological aspect of chemistry than does the general Chemistry Major Programme. It is offered for students who are primarily interested in chemistry but also want to study the chemistry of living systems.

Students should complete the following seven and one-half courses:

First year:

BIOA03Y	Introductory Biology
CHMA02Y	General Chemistry

Second and Third years:

CHMB11Y	Analytical Chemistry
CHMB44Y	Organic Chemistry I
CHMC44Y	Organic Chemistry II
BIOC35Y	Introductory Biochemistry
BIOC36H	Laboratory in Biochemistry

one of:

BIOB02Y	Basic Microbiology
BIOB17Y	General and Comparative Physiology
CHMB22Y*	Physical Chemistry I
CHMB33Y	Inorganic Chemistry I

* If CHMB22Y is chosen, MATA26Y and PHYA01Y are prerequisites.
MATA26Y is a strongly recommended course.

Major Programme in Environmental Science

(This programme is scheduled to begin in 1993/94, pending the approval of the Governing Council.)

Supervisor: T. Price (287-7327)

The Major Programme is designed to give students a good background in the basic principles and applications of Environmental Science. It is intended for students with an interest in Environmental Science, but who do not intend to specialize in the field. It is appropriate for students pursuing a three-year degree in Environmental Science or to those pursuing a four-year degree with more than one area of specialization.

First Year:

EESA01F	Introduction to Environmental Science
EESA02S	Introduction to Physical Geography
EESA03F	Planet Earth: An Introduction to Environmental Geology
EESA04S	Life on Earth: Introductory Biology for Environmental Scientists
PHYA10F	Dynamics of Classical Systems

Students who do not have OAC Chemistry will be expected to complete CHMA02Y-General Chemistry.

Second Year:

BIOB12Y	Fundamentals of Ecology
EESB01S	Principles of Stratigraphy and Sedimentology
EESB02F	General Geomorphology
EESB04F	Hydrology: Measurement, Estimation and Forecasting
EESB05F	Introduction to Soil Science
STAB22F	Statistics

Third Year:

GGRC41F	Environmental Impact Assessment
EESC01F	Environmental Economics and Law

Major Programme in Mathematical Sciences

Students must choose one of the following options:

Mathematics:

Supervisor: H. S. Rosenthal (287-7268)

First year:

MATA26Y	Calculus
MATA04Y	Linear Algebra
CSCA58F	Introduction to Computing

First or Second Year: CSCB70S-Computer Applications

Second and Third years:

MATB31F	Algebra I
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
STAB22F	Statistics

a) 1.5 full-course equivalents from: MATB43S, C51F, C53Y, C56S, C60F, C65S

b) 0.5 full-course equivalent from: MATB30F, B31F, B32S, B70S, C30S, C31F, C32F, C43S, C49F, C54F,

c) 1.0 full course equivalent from: CSCB28F, B38F, B58S, C24S, C50F, C51S, C54F, C64S, C78F, C85S, CSC300, 318, 340, MATC31F, C32F, any 400 level CSC course on St. George campus.
STAB47S, C42S, C62F, C67F, any 300 and 400 level STA course on St. George campus.

Computer Science:

Supervisor: G. Cupit (287-7253)

First year:

CSCA58F	Introduction to Computing
MATA04Y	Linear Algebra
MATA26Y	Calculus

First or Second Year: CSCB70S-Computer Applications

Second and Third years:

CSCB28F	File Structures and Data Management
CSCB38F	Discrete Mathematics
CSCB58S	Computer Organization
MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
STAB22F	Statistics

a) 1.0 full-course equivalent from: CSCC24S, C50F, C51S, C54F, C64S, C78F, C85S, CSC300, 318, 340, MATC31F, C32F, any 400 level CSC course on St. George campus.

b) 0.5 full-course equivalent from: MATB43S, C51F, C53Y, C56S, C60F, C65S MATB30F, B31F, B32S, B70S, C30S, C31F, C32F, C43S, C49F, C54F, STAB47S, C42S, C52F, C62F, C67F, any 300 and 400 level STA courses on St. George campus.

c) 0.5 full-course equivalent from: Course list in a) above PLUS b) above

Statistics

Supervisor: S. Chawla (287-7252)

First year:

CSCA58F	Introduction to Computing
MATA04Y	Linear Algebra
MATA26Y	Calculus

First or second year: CSCB70S-Computer Applications

Second and Third years:

MATB41F	Techniques of the Calculus of Several Variables I
MATB42S	Techniques of the Calculus of Several Variables II
STAB22F	Statistics
STAB47S	Introduction to Probability Theory and Mathematical Statistics

a) 2.0 full-course equivalents from: STAC42S, STAC52S,STAC57S, C62F, C67F, any 300 and 400 level STA courses on St. George campus.

b) 1.0 full-course equivalent from: MATB43S, C51F, C53Y, C56S, C60F, C65S MATB30F, B31F, B32S, B70S, C30S, C31F, C32F, C43S, C49F, C54F, STAC42S, C52S, C57S, C62F, C67F, any 300 and 400 level STA course on St. George campus.
CSCB28F, B38F, B58S, C24S, C50F, C51S, C54F, C64S, C78F, C85S, CSC300, 318, 340, MATC31F, C32F, any 400 level CSC course on St. George campus.

PSCC01H Modern Applications of Classical Science
The use of concepts from classical science in modern systems in society will be considered. Particular applications might include energy production and distribution systems, such as hydro-electric grid systems. The constraints on the design, efficiency, etc. of such systems imposed by the laws of classical science, such as thermodynamics, will be considered, and evolutionary possibilities of such systems as technology changes will be considered subject to the same constraints.
Prerequisites: PHYB21S, MATB41F, MATB42S
Corequisite: PHYB22S, PHYB23H

PSCD01F Policy Issues in Mathematics and Science
Consideration of the impact of modern sciences on society, particularly concerned with public policy pertaining to the problems and benefits brought to society with an increasing dependence on science and engineering. Topics will include energy sources and consumption, environmental hazards of resource based and manufacturing industries, acceptable, safe, and peaceful uses of new technologies. Where appropriate, outside guest lecturers will participate in the course.
Prerequisite: Completion of at least one half of the full-course equivalent requirements of the required courses in any one of the Physical Sciences Scarborough Programmes.
Corequisite: Continued participation in one of the Physical Sciences Scarborough Programmes.
Not offered 1993/94

PSCD02S Current Questions in Mathematics and Science
Topics of current prominence in the physical sciences and mathematics will be discussed, usually by faculty or outside guests who are close to the areas of prominence. Topics will change from year to year as the sciences evolve. An appropriate topic at the present would be, for example, the phenomenon of high-temperature super conductivity.
Prerequisite: PSCD01F
Corequisite: Continued participation in one of the Physical Sciences Scarborough Programmes.
Not offered 1993/94

Physics

Discipline Representative: M.J.G. Lee (287-7246)
Physics is the study of the basic laws that describe 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 neighbouring atom, or of an atomic nucleus on an electron, may be accurately described in terms of the general 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 understood in terms of the interactions among the individual units of which these forms of matter are composed.

Physics allows us to describe the properties of light, sound and heat up to the point where these enter our senses and of x-ray, radio, cosmic and other radiations of which we are not directly aware. The remarkable properties of some materials under extreme conditions of temperature and pressure, and of other materials when an electric current passes through them, form the basis of a wide range of applications of the subject.

It is possible to develop, in mathematical language, theories that so accurately describe physical phenomena that they may be used to predict the results of many carefully controlled experiments. The study of physics, therefore, requires some studies both of mathematics and of the techniques that are needed in the performance of accurate experiments.

At Scarborough College, a student interested in Physics can take the Specialist Programme in Astronomy, Physics and Mathematics, the Specialist Programme in Physical Sciences, or the Major Programme in Astronomy and Physics. In addition, there is a Co-operative Programme in Computer Science and Physical Sciences.

NOTE: There are three introductory courses in physics, each of which is accompanied by a laboratory. PHYA01Y - Principles of Physics - is a full year course with a calculus corequisite, which makes greater use of mathematics and gives greater opportunity to develop problem solving skills, while PHYA10F - Dynamics of Classical Systems - and PHYA11S - Electromagnetism and Solid State Devices - are half year courses with no corequisite, which together offer a broader coverage of physical concepts and their applications. PHYA10F and PHYA11S are intended primarily for students who are not specialists in the Physical Sciences.

Students wishing to take a full year of physics may choose to take either PHYA01Y or PHYA10F and PHYA11S. Students wishing to take a half year of physics may take either PHYA10F or PHYA11S.

Please refer to the Physical Sciences section of the Calendar for the following Programmes.

Specialist Programme in Astronomy, Mathematics and Physics

Specialist Programme in Computer Science and Physics

Specialist Programme in Co-op Computer Science and Physical Sciences

Major Programme in Astronomy and Physics

Major Programme in Physics

The Major Programme in Physics is no longer offered. Students currently registered will be allowed to complete it.

PHYA01Y Principles of Physics
Telephone ID #: 24810163
Classical mechanics: potential energy, conservation laws, rotational dynamics, planetary motion, harmonic vibrations, wave equations; Thermodynamics: temperature, entropy, ideal gases; Special theory of relativity: Lorentz transformation, relativistic mechanics, $E=mc^2$; Electricity and magnetism: Maxwell's equations, electromagnetic waves; Quantum mechanics: Schrodinger's equation in simple systems, lasers, electronic states in metals and semiconductors, the structure of the nucleus.

Two lectures and one tutorial per week, and a three-hour laboratory every second week.
Exclusion: (PHYA02), (PHYA03), PHYA10, PHYA11; PHY110, 130, 138, 150
Corerequisite: MATA26 or (MATA27) or (MATA55)
Session: Winter Day

PHYA10F Dynamics of Classical Systems
Telephone ID #: 24811033
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.

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: PHYA01, (PHYA02); PHY110, 130, 138, 150
Prerequisite:OAC Calculus and OAC Algebra or Grade 13 Calculus
Session: Fall Day

PHYA11S Electromagnetism and Solid State Devices
Telephone ID #: 24811153
Electromagnetism: electric fields, capacitance, current and resistance, magnetic fields, Lorentz force, electromagnetic induction, inductance.
Alternating Currents: Vibrations and waves, AC circuits, electromagnetic waves, propagation of pulses, diffraction.
Solid State Devices: semiconductors, the pn junction, 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: PHYA01, (PHYA02); PHY110, 138, 150.
Prerequisite: OAC Calculus and OAC Algebra or Grade 13 Calculus
Session: Fall Day

PHYB21S Electricity and Magnetism
Telephone ID #: 24822153
Coulomb's law, electric fields, Gauss' law, electric potential, capacitance, dielectrics, magnetic forces and fields, inductance, magnetization, Faraday's law, displacement current, Maxwell's equations.
Exclusion: PHYB01
Prerequisite: PHYA01; MATB41

PHYB22F Electronics
Telephone ID #: 24822233
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.
Exclusion: PHYB03
Prerequisite: PHYA01 or (PHYA02), PHYA10 and PHYA11; MATA26

PHYB23H 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.
Exclusion: PHYB08, PHYC05
Corerequisite: PHYB21

PHYC21F Classical and Quantum Waves
Telephone ID #: 24832133
Harmonic motion, damping, driven and coupled oscillators; standing and running waves; interference and diffraction; normal modes; wavefunctions in quantum theory; wave-particle duality; de Broglie matter waves; wave mechanics of 1-dimensional systems.
Prerequisite: PHYB21; MATB42

PHYC22S Structure of Matter
Telephone ID #: 24832253
Introduction to the quantum description of electronic properties of atoms, molecules and solids (including semiconductors and superconductors); subatomic physics of elementary particles and structure of nuclei; nuclear power. Course includes discussion of Fermi and Bose statistical distributions.
Prerequisite: PHYC21

Political Science

Discipline Representative: R. Manzer (287-7307)
Political Science consists of a variety of approaches to the study of politics. Politics is the process of attempting to resolve conflicts among competing interests and values, and over how societal resources will be allocated. The discipline includes not only the study of policies and arrangements created to facilitate non-violent resolution of conflict at the level of the nation state, but also the institutional and informal means by which a group may enhance its power (that is, its ability to have its views and interests implemented) from the level of the municipality to the international realm.

Political Science is divided into the following fields: Canadian government, comparative politics (industrial countries), comparative politics (developing countries), public administration and public policy, international relations, and political theory. In the study of *Canadian Government* students will become familiar with the process and structures of decision making in Canada. *Public Administration* deals with the institutions or organizational structures through which public policies are implemented. Courses in *Comparative Politics* focus on the political practices and policies of a wide variety of nations and thus broaden the student's awareness of foreign political systems. *International Relations* is devoted to the analysis of the foreign policies of various nation states and of the relations amongst nation states. *Political Theory* explores the reasons advanced for various political doctrines and policies; that is, it attempts to clarify the place of politics in relation to various conceptions of the "quality of life".

Levels of courses range from A to D; the lettering corresponds to increasing degrees of concentration and difficulty of subject matter. D-level courses are advanced seminars and assume a strong background in political science and/or related fields such as economics, geography, history, philosophy, and sociology. Students are advised to consult the instructors of D-level courses or the Supervisor of Studies prior to enroling in them.

In limited enrolment courses, priority is given to students for whom the course is required in a given year of a programme. Students will be informed prior to the end of classes in April on how to apply to limited enrolment courses. Students should consult the Supervisor of Studies about procedures.

Prerequisites: Because appropriate academic preparation for advanced work in political science can vary greatly from one course to another, specific prerequisites are not always stated for higher-level courses. Where prerequisites are stated, they will be strictly enforced. Students who knowingly or unwittingly register for courses for which they do not have the necessary prerequisites will be denied access to those courses.

Specialist Programme in Political Science
Supervisor: D. Welch (287-7308)
Note: Registration in this Programme is limited.

Applications for admission to the Specialist Programme are accepted after students have completed at least four full-course equivalents (i.e. generally after completing the first year of the degree programme). Applicants must have completed or be in the process of completing POLA50Y. Students will be selected to enter the second year of the programme on the basis of their GPA for those four courses taken to date (including POLA50Y) in which their grades are highest. Students wishing to register at a later date may be admitted at the discretion of the Supervisor.

Students must complete ten full-course equivalents in Political Science, at least three of which must be at the C or D level. The courses must be approved by the Supervisor and must include the following:

1 POLA50 Introduction to Canadian Politics
2 Political Theory courses POLB70 and POLC74.
3 One full course from each of any three of the following fields:
   A Canadian Government: POLB51, POLB55, POLC51, POLC52-C55, POLD51.
   B Public Administration and Public Policy: POLB60, POLC60, POLC61, POLC64, POLD50, POLD62.
   C International Relations: POLB80, POLC82, POLC84, POLD81.
   D Comparative Politics, Industrial Countries: POLB86, POLB87, POLC68, POLC87.
   E Comparative Politics, Developing Countries: POLB91, POLC95, POLC96, POLC98, POLD93, POLD94.

Students in the Specialist Programme may not take more than fourteen full-course equivalents in Political Science. In selecting courses from other disciplines, they should consult with the Supervisor or with a member of the Political Science staff.

Major Programme in Political Science
Supervisor: D. Welch (287-7308)
Note: Registration in this Programme is limited.

Applications for admission to the Major Programme are accepted after students have completed at least four full-course equivalents (i.e. generally after completing the first year of the degree programme). Applicants must have completed or be in the process of completing POLA50Y. Students will be selected to enter the second year of the programme on the basis of their GPA for those four courses taken to date (including POLA50Y) in which their grades are highest. Students wishing to register at a later date may be admitted at the discretion of the Supervisor.

Students must complete at least six full-course equivalents in Political Science, at least two of which must be at the C or D level. The courses must be approved by the Supervisor and must include the following:

1 POLA50 Introduction to Canadian Politics
2 One full course equivalent in political theory from: POLB70, POLC74, POLC75, POLD70, POLD71, POLD72, POLD73
3 One full course equivalent from each of any three of the following fields:
   A Canadian Government: POLB51, POLB55, POLC51, POLC52, POLC53, POLC54, POLC55, POLD51.
   B Public Administration and Public Policy: POLB60, POLC60, POLC61, POLC64, POLD50, POLD62.
   C International Relations: POLB80, POLC82, POLC84, POLD81.
   D Comparative Politics, Industrial Countries: POLB86, POLB87, POLC68, POLC87.
   E Comparative Politics, Developing Countries: POLB91, POLC95, POLC96, POLC98, POLD93, POLD94

Minor Programme in Political Science
Supervisor: D. Welch (287-7308)
The Programme requires the completion of at least four 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 must be taken from any one of the fields listed below (e.g. all four in Canadian Government); or two full-course equivalents must be taken from each of any two of these fields (e.g. two courses in International Relations, plus two courses in Comparative Politics-Developing Countries).

A Canadian Government: POLB51, POLB55, POLC51, POLC52, POLC53, POLC54, POLC55, POLD51.
B Political Theory: POLB70,POLC74, POLC75, POLD71, POLD72, POLD73.
C Public Administration and Public Policy: POLB60, POLC60, POLC61, POLC64, POLD50, POLD62.
D International Relations: POLB80, POLC82, POLC84, POLD81.
E Comparative Politics, Industrial Countries: POLB86, POLB87, POLC68, POLC87.
F Comparative Politics, Developing Countries: POLB91, POLC95, POLC96, POLC98, POLD93, POLD94.

Specialist Programme in Economics and Political Science
(see under Economics)

POLA50Y Introduction to Canadian Politics
Telephone ID #: 25215063
A study of Canadian political institutions and processes. Specific topics include: the constitution, federalism, civil liberties, federal-provincial relations, political regionalism, French Canada, the West, social class and politics, public opinion and political culture, elections, political parties, interest groups, Cabinet and Prime Minister, Parliament, the public service. Two lectures a week and a tutorial once every two weeks.
Class size is limited to 80 per section.
Exclusion: (POLB50), POL100
Session: Winter Day, Summer Evening
L. Johnston, R. Blair

IDSB01Y Political Economy of International Development
Telephone ID #: 08120163
Introduces students to major development problems, the principal social, economic and political factors that condition these and the impact on them of various development strategies pursued in a sample of Third World countries.
Prerequisite: One course in either Economics or Political Science
Session: Winter Day
S. Horton, P. Kingston

POLB51S Government and Politics in Ontario
Telephone ID#: 25225153
Political structures and processes in Ontario: Cabinet government; the interaction of Cabinet, Legislature, and public servicep; political parties and the party system; provincial-municipal relations.
Class size is limited to 80 per section.
Exclusion: POL336
Prerequisite: POLA50 (POLB50)
Session: Winter Day
R. Blair

POLB55Y Issues in Canadian Politics
Telephone ID #: 25225563
This course will examine and analyse a selection of the problems and issues of contemporary Canadian politics.
Class size is limited to 80 per section.
Prerequisite: POL A50Y or permission of the instructor.
Session: Winter Day
G. Skogstad

POLB60Y Canadian Public Policy and Administration
Telephone ID #: 25226063
Ideologies, institutions and processes of politics, policy and administration in the governments of Canada and Ontario. Basic types of administrative organizations — ministerial departments, central agencies, regulatory tribunals, public corporations and advisory bodies. Processes of constructing public agendas, planning priorities, choosing governing instruments and implementing public policies. Patterns of public policies in selected areas of economic growth, social welfare, public education and human rights. Problems of democratic politics, political ideology and bureaucratic power in making public policy.
Class size is limited to 80 per section.
Prerequisite: POLA50Y
Exclusion: (POL B53F), (POLB61F), (POLB62S)
Session: Winter Day
R. Manzer

POLB70Y Political Thought from Plato to Locke
Telephone ID #: 25227063
An examination of the central political texts from Plato to the early modern period. Students will be expected to read Plato's *Republic*, Aristotle's *Politics*, Machiavelli's *The Prince*, Hobbes' *Leviathan* (Parts one and two) and Locke's *Second Treatise of Government*. The political writings of St. Augustine and St. Thomas Aquinas will also be studied.
Class size is limited to 80 per section.
Exclusion: POL200
Session: Winter Day
E. Andrew

POLB80Y International Relations
Telephone ID #: 25228063
A study of the nature of the international system, the factors that motivate foreign policies, and the institutions for the conduct of international relations. Class size is limited to 80 per section.
Exclusion: POL208
Prerequisite: Not open to first year students without permission of instructor
Session: Winter Day
D. Welch

POLB86Y Russian Government and Politics
Telephone ID#: 25228663
The development of Russian political and social institutions since 1917, with emphasis upon the process of modernization and its effects. The course examines the formation and consolidation of the Russian political order and the urgent problems confronting Russian society today. Class size is limited to 80 per section.
Exclusion: (POLB23), POL204
Session: Winter Day
S. Solomon

POLB91Y Politics of the Third World
Telephone ID #: 25229163
The effects which various Western, especially North American, policies and practices have had upon development in the Third World. The policies and practices to be surveyed include those relating to foreign aid, the multi-national corporation, and Western security. Case material will be drawn from four countries in Latin America and Africa which illustrate a diversity of approaches to development: Cuba, Chile, Ghana, Kenya.
Class size is limited to 80 per section.
Exclusion: POL201
Session: Winter Day
J. Teichman

POLC51Y The Machinery of Parliamentary Government
Telephone ID #: 25235163
In the first term this course will explore the nature of cabinet government in Canada, its strengths and weaknesses and possible avenues of reform. In the spring term it will concentrate on finance policy; in particular, the process whereby the expenditure and revenue budgets are formulated in Canada and federal-provincial finances.
Class size is limited to 60 per section
Prerequisite: POLA50Y and POLB61F (1993-94 only); In subsequent years POLB60Y
Session: Winter Day
R.S. Blair, L. Johnston

POLC52Y Canadian Constitution
Telephone ID #: 25235263
Historical origins of the Canadian constitution and its evolution since 1867; the law and customs of the constitution; judicial interpretation of the Constitution Act 1867 and its effect on federalism and civil liberties; constitutional change and the Constitution Act 1982; contemporary constitutional issues. Class size is limited to 60 per section.
Exclusion: POL210
Prerequisite: POLA50 (POLB50)
Session: Winter Day
R. S. Blair

POLC53F The Politics of Canadian Environmental Policy
Telephone ID #: 25235333
This course examines the political and legal framework within which Canadian environmental policy is evolving, with due regard for the catalytic roles of environmental groups, public opinion, and the court system, and the distinctive contribution to policy development of federalism and Canada's resource-based economy.
Class size is limited to 60 per section.
Prerequisite: POLA50
Session: Winter Day
G. Skogstad

POLC54F Intergovernmental Relations in Canada
Telephone ID #:25235433
An examination of some of the problems of intergovernmental relations which arise in a federal state and of the governmental machinery which has been developed to deal with these issues. Emphasis on modern Canada.
Class size is limited to 60 per section.
Exclusion: POLA50 (POLB50)
Session: Winter Day
G. Skogstad

POLC60F Administrative Politics
Telephone ID #: 25236033
Analysis of politics in the administrative processes of democratic states with particular attention to Canadian public administration but with some reference to American and European experience. Selected theories of administrative politics, the constitutional and political framework of administrative politics in Canada, typical relationship of administrative conflict and co-operation, and issues of administrative politics and political democracy.
Class size is limited to 60 per section.
Prerequisite: POLA50 (POL B50) plus (POLB61) and (POLB62)
Session: Winter Day
R. Manzer

POLC61S Policy Development and Political Evaluation
Telephone ID #: 25236153
Theories of public decision-making and basic patterns of policy-making institutions and processes. Problems of defining and applying criteria for political evaluation such as efficiency, effectiveness, equity, wants, needs and rights. Analysis of theory and practice in selected cases of

Canadian public administration and policy development.
Class size is limited to 60 per section.
Prerequisite: POLB53 or POLB61 or POLB62
Session: Winter Day
R. Manzer

POLC64Y Comparative Public Administration and Policy
Telephone ID #: 25236463
The course will explore in comparative perspective selected aspects of public administration and public policy. It will have a topic rather than a country focus, but each student will be expected to acquire a more detailed knowledge of a specific country and a specific policy area. The format will be lecture-discussion.
Class size is limited to 60 per section.
Exclusion: POL317
Prerequisite: POLB61, POLB62 (93/94 only) or POLC87. In subsequent years, POLB60 or POLC51 or POLC87
Session: Winter Day
J. Esberey

POLC74Y Political Thought of the Eighteenth and Nineteenth Centuries
Telephone ID #: 25237463
A study of the major political philosophers of the eighteenth and nineteenth centuries. Particular emphasis will be placed on Rousseau's *Discourse on Inequality* and *Social Contract*; Burke's *Reflections on the Revolution in France*, Tocqueville's *Democracy in America*, and selected writings of J.S. Mill and Marx.
Class size is limited to 60 per section.
Exclusion: POL320
Prerequisite: POLB70
Session: Winter Day
M. Williams

POLC75Y Political Analysis
Telephone ID#: 25237563
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".
Class size limited to 60 per section.
Exclusion: POLB65 (1985-86) (POLB72), POL318)
Prerequisite: POLA50 (POLA01)
Session: Winter Day
S. Solomon

POLC84Y Canadian Foreign Policy
Telephone ID #: 25238463
An examination of the most important elements within Canada's foreign policy since 1945 and a consideration of the issues and the influences which have determined that policy.
Class size is limited to 60 per section.
Exclusion: POL312
Prerequisite: POLA50 (POLB50) and POLB80Y
Session: Winter Day
D. Welch

POLC87Y Comparative Politics of Industrial Societies
Telephone ID#25238763
A comparative analysis of politics in advanced industrial societies including consideration of the following topics: interaction among political and bureaucratic elites, interest group representation, the dynamics of the welfare state, and future conditions of post-industrial societies. Organization of the course will depend upon enrolment.
Class size is limited to 60 per section.
Exclusion: (POLB85), POL300
Prerequisite: POLA50 and one B level course in political science.
Session: Winter Day
L. Johnston

POLC96Y Politics and Society in the Middle East
Telephone ID #: 25239663
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.
Class size is limited to 60 per section.
Prerequisite: IDSB01Y or POLB91Y
Session: Winter Day
P. Kingston

POLC98Y Politics and Society in Latin America
Telephone ID #: 25239863
This lecture/seminar course will survey the evolution and current traits of political institutions in Latin America with particular emphasis upon the role of domestic and international forces in shaping them.
Class size is limited to 60 per section.
Prerequisite: IDSB01Y or POLB91Y
Session: Winter Day
J. Teichman

POLD70Y Twentieth Century Political Thought
Telephone ID #: 25247063
A study of some of the major developments in political thought in the twentieth century. The course examines the evolution of democratic theory with particular attention to the impact on that theory of the sociopolitical crisis (the failure of democracies and rise of fascism) in Europe.
Class size is limited to 20 per section.
Exclusion: (POLC70)
Prerequisite: POLB70, POLC74 or POLC75
Session: Winter Day
E. Andrew

POLD81S The Psychology of International Relations
Telephone ID #: 25248153
This course will explore the contribution that psychological knowledge can make to an understanding of international relations. Problems to be considered include problems of war and peace, the influence of perception on foreign policy decisions, the influence of personality of decision making. The course will be taught in a weekly two hour seminar and the students will be expected to undertake regular preparatory reading and to participate actively in class discussions.
Class size is limited to 20 per section.
Exclusion: (POLC81)
Prerequisite: POLB80
Session: Winter Day
D. Welch

POLD94S Selected Topics on Developing Areas
Telephone ID #: 2524945
The topic to be examined this year is the role of the state in facilitating economic development in the Third World. Both capitalist and socialist patterns receive attention. Comparisons to Western and Japanese experience are drawn. Class size is limited to 20 per section.
Prerequisite: A social science course on the Third World or development
Session: Winter Day
P. Kingston

POLD98F Supervised Reading
Telephone ID #: 25249833
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.
Exclusion: POL495
Prerequisite: One B-level course in Political Science; Permission of Instructor.
Session: Summer Evening, Winter Day, Winter Evening
Staff

POLD99S Supervised Reading
Telephone ID #: 25249953
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.
Exclusion: POL495
Prerequisite: One B-level course in Political Science; Permission of Instructor.
Session: Summer Evening, Winter Day, Winter Evening
Staff

Courses Not Offered in 1993-94

POLB87Y	U.S. Government and Politics Limit: 80 Exclusion: POL203
POLC55F/S	Comparative Provincial Government Limit: 60 Exclusion: POL333 Prerequisite: POLA50 (POLB50)
POLC68S	Comparative Intergovernmental Relations Prerequisite: POLA50 (POLB50) and one of POLB53, POLC54, POLC87
POLC82Y	American Foreign Policy Limit 60 Exclusion: POL326 Prerequisite: POLB80 or POLB87
POLC95Y	Politics and Society in Tropical Africa Exclusion: POL301 Prerequisite: none, but a

course in introductory political science would be helpful

POLD50F/S Organized Interests and Public Policy in Canada
Limit 20
Prerequisite: POLA50 (POLB50)

POLD51F Topics in Canadian Government
Limited 20
Prerequisite: POLA50 (POLB50)

POLD62F/S Organized Interests and the State
Limit 20
Prerequisite: POLA50 (POLA01 or POLB50) or POLC87

POLD71Y Canadian Political Ideas
Exclusion: POL212, POL407
Prerequisite: One of POLA50 (POLB50), POLB70, POLC74, HISB04

POLD72F/S Selected Topics in Political Philosophy
Limit: 20
Prerequisite: POLB70, POLC74 or Permission of the Instructor

POLD73F/S Selected Topics in Political Philosophy
Limit 20
Prerequisite: POLB70, POLC74 or Permission of Instructor

POLD93F Selected Topics in Developing Areas
Limit: 20

Psychology

Associate Chair: G.C. Cupchik
(Office S-634)
Psychology is that branch of science which seeks to understand behaviour and mind. Why organisms -human and infrahuman - act as they do is one of the most compelling and longstanding questions in the history of human thought. Philosophers, artists, novelists, theologians and others have sought the answer through reason and intuition. Psychology uses the methods of scientific enquiry to address the question.

The areas of interest encompassed by the discipline of psychology include: how organisms perceive their environments; how they learn, adapt, and remember; how they change over their lifetimes; how they choose among alternate courses of action; how they respond to motivating forces; how they are affected by the presence of other organisms in social settings; how their behaviour relates to their physiological functions; and how individuals and species differ from one another. Our course offerings in Psychology include all of these topics, covering how psychologists go about answering the important questions in each, and what we have learned about each.

The Specialist Programme in Psychology includes courses from each of the main sub-areas within the discipline. This Programme is intended both for students with a strong interest in the field and for those who wish to pursue graduate work in psychology after the first degree. Students considering graduate study should plan to include the thesis course (PSYD98Y) in their undergraduate programme.

The Major Programme in Psychology is designed to introduce students to the main areas within the discipline. The Minor Programme is designed for students who are interested in a less intensive exposure to the field. Often, students desire to concentrate their studies in two areas, in which case a double Major Programme combining psychology with another discipline is ideal.

Students particularly interested in the relation of brain to behaviour should consider the Specialist or Major Programme in Neuroscience described earlier in this *Calendar*. Those particularly interested in the study of knowledge - language, communication and thought - may wish to consider the 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. As two examples, it is recommended that PSYB07F/S and PSYC08F/S be taken consecutively in the two terms of second year and that the same be done with PSYB60F/S and PSYC61F/S.

Students should be aware that with the exception of PSY100Y and 200H, all other courses in the Faculty of Arts and Science correspond to B, C or D-level and all 400 series are considered D-level. Students are encouraged to plan carefully so that they will meet their educational objectives over the years of their degree. Discussions with the Supervisor of Studies can be very valuable in this regard.

Specialist Programme in Psychology
Supervisor: M. Schmuckler (Office S540E)
The programme requires completion of 12.5 full- course equivalents, and fulfills the Programme requirements for the 4-year B.A. degree in Psychology.

The requirements for the B.Sc. degree are met by the addition of one further half-course (.5 full-course equivalent) in a science (including psychology) at the B-, C- or D-level.

A. 10.5 full-course equivalents in Psychology, as follows:
1 PSYA01Y Introduction to Psychology (1 full-course equivalent)
2 Statistical Methods (1 full-course equivalent)
   (a) PSYB07F/S Data Analysis in Psychology
   and
   (b) PSYC08F/S Experimental Design in Psychology
3 Laboratory Methods (1 full-course equivalent)
   (a) PSYB01F/S Psychological Research Laboratory
   and
   (b) one half-course (.5 full-course equivalent) from among the following:
   - PSYC11F/S Social Psychology Laboratory
   - PSYC26S Developmental Psychology Laboratory
   - PSYC34F/S Psychometric Methods Laboratory
   - PSYC42F/S Learning Laboratory
   - PSYC58F/S Experimental Psychology Microcomputer Laboratory
   - PSYC63Y* Physiological Psychology Laboratory
   (*NOTE: Students selecting PSYC63Y also receive 0.5 course credit towards satisfaction of Requirement 6b or 7.)
4 PSYB02S Scientific Communication in Psychology (.5 full-course equivalent)
5 History and Theoretical Psychology (.5 full-course equivalent)
   (a) PSYC82F/S Theoretical Psychology
   or
   (b) PSYC85F/S History of Psychology
6 Courses at the B-level and/or C-level (3 full-course equivalents)
   Students are required to take one full-course equivalent at the B-level and/or C-level from each of the three content groups listed below:
   (a) Social, Developmental and Personality courses (listed in the 10-, 20-, and 30-series);
   (b) Learning and Physiology courses (listed in the 40- and 60-series);
   (c) Perception, Language and Cognition courses listed in the 50-series).
7 Courses at the D-level (2 full-course equivalents)
   In selecting two full-course equivalents at the D-level, students may not include more than 1.5 full-course equivalents from any one of the content groups listed under 6a, 6b, or 6c.
8 Additional courses in Psychology (1.5 full-course equivalents)
   Students must choose 1.5 further full-course equivalents from any of the remaining courses in psychology. The choice is unconstrained. Specialists are encouraged to plan on enrolling in the thesis course (PSYD98Y) in their third or fourth year, particularly if they intend to pursue a career in Psychology or a related discipline.

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.

Major Programme in Psychology
Supervisor: M. Schmuckler (Office S540E)
The Programme requires completion of 6.0 full-course equivalents in Psychology and normally results in the 3-year B.A. in Psychology. For the 3-year B.Sc. degree, the student must take one additional full-course equivalent at the B-level or above in any science (including psychology).
1 PSYA01Y Introduction to Psychology (1 full-course equivalent)
2 PSYB01F/S Psychological Research Laboratory (.5 full-course equivalent)
3 PSYB07F/S Data Analysis in Psychology (.5 full-course equivalent)
4 Courses at the B-level and/or C-level (1.5 full-course equivalents)
   Students are required to select one half-course (.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- or 60-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 (2 full-course equivalents)
Students must choose 2 further full-course equivalents from any of the remaining courses in Psychology. At least one full-course equivalent from these must be at the C- or D-level.

Minor Programme in Psychology
Supervisor: M. Schmuckler (Office S540E)
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 PSYA01Y Introduction to Psychology (1 full-course equivalent)
2 PSYB01F/S Psychological Research Laboratory (.5 full-course equivalent)
3 PSYB07F/S Data Analysis in Psychology (.5 full-course equivalent)
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 equivalents):
(a) Social, Developmental and Personality courses (listed in the 10-, 20-, or 30-series);
(b) Learning and Physiology courses (listed in the 40- or 60-series);
(c) Perception, Language, and Cognition courses (listed in the 50-series).
5 Additional course in Psychology (.5 full-course equivalent)
Students must choose .5 further full-course equivalent from any remaining course in Psychology.

PSYA01Y Introduction to Psychology
Telephone ID #: 25710163
The basic principles and methods of contemporary psychology, emphasizing their contribution to an understanding of how organisms, both human and infrahuman, perceive their environments, how their behaviour is modified by experience, and how their activities are instigated, sustained, and directed.

The physiological basis of behaviour, particularly the functioning of the nervous system; learning and the importance of past experience in behaviour; perceiving, thinking, and reasoning; intelligence; language; motivation and emotion; social behaviour; personality, and abnormalities of behaviour and experience.
Exclusion: PSY100Y, PSY200H
Session: Summer Evening, Winter Day, Winter Evening
The Faculty

PSYB01F Psychological Research Laboratory
Telephone ID #: 25720133
The intent is to present the principles of the 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 hypothesis 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 experiment 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 in laboratory exercises. This course is required for both the Major and the Specialist Programmes, and provides the basic skills necessary to take the other laboratory courses in psychology.
Prerequisite: PSYA01
Session: Summer Evening, Winter Evening
G. Biederman

PSYB02S Scientific Communication in Psychology
Telephone ID #: 25720253
The purpose of this course is the development and enhancement of practical and professional skills based 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. Activities will be organized around the de-construction and construction of empirical studies, literature reviews and theoretical articles. Related skills often helpful for the production of sound arguments and communication, such as aspects of computer literacy and strategies for literature search, will be incorporated into the course.

This course is limited to students enrolled in the Psychology Specialist Programme, and is recommended to be taken in the student's second year.
Prerequisite: PSYB01, PSYB07
Session: Winter Day
D. Bors

PSYB07F Data Analysis in Psychology
Telephone ID #: 25720733
Data reduction techniques: frequency distributions, measures of central tendency and variability, linear transformations, correlation and regression; and hypothesis testing procedures based on the binomial, chi-square, normal, and t distributions.

The course examines the role of statistical decision-making procedures in drawing reasonable inferences from research findings. It details the mechanics of a variety of commonly used data analysis procedures and explores their underlying logic. A working knowledge of elementary algebra (to the solution of simple linear equations in one unknown) is assumed. Four hours of lecture and one hour of tutorial per week.
Exclusion: ANTC35, (BIOB28), (ECOB11), ECOB09, ECOB10, GGRB31, STAB22, STAB47, SOCB06, PSY201H
Session: Summer Evening, Winter Day
B. Forrin

PSYB10F Introduction to Social Psychology
Telephone ID #: 25721033
Surveys social influence (conformity and obedience), prejudice, sexism, attitude change, group behaviour (crowding, crowd behaviour, panics), aggression, cooperation and competition, nonverbal communication, person perception, attraction and emotions.

Social Psychology focuses on the problem of how human behaviour is 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: PSY220H
Prerequisite: PSYA01
Session: Winter Day
J. Bassili

PSYB20F Introduction to Developmental Psychology
Telephone ID #: 25722033
Developmental processes during infancy and childhood.

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

Three lecture hours per week.
Exclusion: PSY210Y
Prerequisite: PSYA01
Session: Winter Day
M. Schmuckler

PSYB30S Personality
Telephone ID #: 25723053
An introduction to some of the influential theories of personality and the research which they have guided. Specific theories covered vary from year to year. A typical selection might include behavioural psychology, cognitive psychology and artificial intelligence, psychoanalysis, and transpersonal psychology.

The aim of this course is to acquaint the student with the diversity of theoretical assumptions and research methods with which basic questions about human nature have been approached. Readings are from primary sources.
Exclusion: PSY230H
Prerequisite: PSYA01
Session: Winter Evening
T.B.A.

PSYB32F Abnormal Psychology
Telephone ID #: 25723233
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 hypotheses, model and theory, including genetic, physiological, stress, medical-psychiatric, psychoanalytic, social-learning, and sociological; classification systems, including problems in their reliability and validity; description of a variety of neuroses, psychoses, and other behavioural disorders of adults and children, including cognitive, emotional, sensory-perceptual, psychomotor, and motor aspects; approaches, methods of investigation, and findings in

psychological, psychophysiological, genetic, and epidemiological research; management, control, and modification of abnormal behaviour within and outside institutions, including pharmacological, psychotherapeutic, learning-based, and social engineering approaches.

The conceptual problem of defining abnormality and categorizing its varieties will be emphasized.
Exclusion: PSY240H
Prerequisite: PSYA01
Session: Winter Evening
S. Zeitlin

PSYB45F Behaviour Modification: Origins and Applications
Telephone ID #: 25724533
A survey of attempts to understand and regulate human behaviour in non-laboratory settings founded on principles derived from the learning and conditioning laboratory. A critical analysis of current applications and systems of behaviour modification and control.

Philosophical underpinnings; basic concepts and models of behavioural change; research strategies; operant procedures; reinforcement schedules, extinction, shaping, self-reinforcement, fading, chaining, instructions, the token economy, behavioural contracting, biofeedback, punishment and its side effects; cognition and behaviour therapy, attribution, placebo effects, cognitive therapy, rational-emotive therapy, thought stopping, problem-solving, modeling; establishment of new behaviours, fear extinction, assertive training; treatment of depression; systematic desensitization; treatment of anxiety; aversive counterconditioning; treatment of alcohol and drug abuse.
Exclusion: PSY361
Prerequisite: PSYA01
Session: Winter Evening
F. Klajner

PSYB50F Sensation and Perception
Telephone ID #: 25725033
The physics, mathematics and physiology of processes underlying perception, emphasizing the energies involved in different senses.

Stimuli for the human senses, especially light and sound; receptors and sensory pathways with emphasis on vision; sensitivity; colour; spatial and temporal resolution; contrast; perception of space and movement; perception of pattern and form. The teaching method will be lectures, for which preparatory reading will be important, and classroom demonstrations of many phenomena under discussion.
Exclusion: PSY280Y
Prerequisite: PSYA01
Session: Winter Day
J. Kennedy

PSYB51S Perception and Cognition
Telephone ID #: 25725153
Theory and empirical research on visual and tactile perception, representation, and communication.

Topics include the ecological approach to perception and depiction in the handicapped and normal perceiver, perceptual information and projection, illusion, perspective, shadow patterns; possible 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.
Exclusion: PSY280Y
Prerequisite: PSYA01
Session: Winter Day
J. Kennedy

PSYB57S Memory and Cognition
Telephone ID #: 25725753
Discussion of experiments and theories in human memory and cognition. This course provides an analysis of the research on encoding, storage and retrieval of information in human memory. Also surveyed are the related topics of attention, thinking, and problem solving, and their role in a general model of information processing.

Three lecture hours per week.
Exclusion: PSY270Y, PSY372H
Prerequisite: PSYA01
Corequisite: PSYB07
Session: Winter Day
C. MacLeod

PSYB60F Brain Mechanisms and Behaviour: I
Telephone ID #: 25726033
The relation between behaviour and the structure and function of the nervous system. Topics covered include: neuroanatomy, structure and function of neurons, neurochemistry and neural mechanisms and movement.

The objective is to give the student a firm grasp of the structure and function of the nervous system and its role in the behaviour of an organism. Neuroanatomy, structure and function of neurons, neuropharmacology, and neural mechanisms of sensation and movement.

Three hours of lecture and two hours of lab per week.
Exclusion: PSY290Y
Prerequisite: PSYA0I; PSYB65 is recommended for students with no Biology background.
Session: Winter Day
N. Milgram

PSYB65F Human Brain and Behaviour
Telephone ID #: 25726533
An examination of the neurological basis of human behaviour: an introduction to human neuropsychology.

The course focuses on the following: higher brain function in humans; 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: PSYA01
Session: Winter Day
T. Petit

PSYC08S 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 PSYB07. 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, PSY202H
Prerequisite: PSYB07, (BIOB28), STAB22 or STAB47 plus one additional B-level half-course in PSY.
Session: Winter Day
B. Forrin

PSYC11F Social Psychology Laboratory
Telephone ID #: 25731133
Introduces conceptual and practical issues concerning research in social psychology, and provides experience with several different types of research.

This course is designed to consider in depth various research approaches used in social psychology (such as attitude questionnaires, observational methods for studying ongoing social interaction). Discussion and laboratory work. Limited enrolment: 25.
Exclusion: PSY329H
Prerequisite: PSYB01, PSYB07, PSYB10
Session: Winter Day
J. Bassili

PSYC12S Advanced Social Psychology
Telephone ID #: 25731253
A detailed examination of selected social psychological topics introduced in PSYB10.

Attitudes play a central role in our social lives. This course examines the nature of attitudes, their development, organization and change. Practical issues such as the measurement of attitudes and the relation between attitudes and behaviour will be covered. In addition, the course examines belief systems and their manifestation in political and moral ideologies.

Teaching method: lectures.
Exclusion: PSY320H
Prerequisite: PSYB07, PSYB10 plus one additional B-level half-course in PSY
Session: Winter Day
J. Bassili

PSYC21F 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 considered: adaptation to parenthood, work-related functioning, continuity versus change in adulthood. Teaching method: lectures, discussion.
Exclusion: PSY210Y
Prerequisite: PSYB20 plus one additional B-level half-course in PSY
Session: Summer Evening, Winter Day
K. K. Dion

PSYC26S Developmental Psychology Laboratory
Telephone ID #: 25732653
This course introduces conceptual and practical issues concerning research in developmental psychology, providing experience 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 design as it applies to developmental issues will be included. Limited enrolment: 24.
Exclusion: PSY319Y
Prerequisites: PSYB01, PSYB07, PSYB20
Session: Winter Day
K. K. Dion

PSYC34S Psychometric Methods Laboratory
Telephone ID #: 25733453
An intensive exploration by means of lectures and workshops of the principles and methods underlying the construction of psychological tests, the interpretation of the scores they yield, and the assessment of their worth as diagnostic and predictive devices in educational, industrial and clinical settings, illustrated by reference to a wide variety of measures of talent, interest, and character

The course focuses upon testing rather than upon tests. It seeks to impart those psychometric skills broadly applicable to the range of assessment procedures; it does not take as a significant objective the development of skill in the administration and scoring of particular tests.
Limited enrolment: 25
Exclusion: PSY330H
Prerequisite: PSYB01, PSYB07 (or equivalent)
Session: Winter Day
B. Forrin

PSYC42S 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 experience relevant to basic concepts and current problems in learning and motivation.
Exclusion: PSY260Y, PSY359H, PSY369Y
Prerequisite: PSYB01, PSYB07 (or equivalent)
Session: Winter Day
G. Biederman

PSYC45S 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 literature and to review the logic and validity of modern applied learning techniques and measurement strategies in these areas: e.g. remediation strategies in atypical subject populations (e.g. autistic, MR, learning disabled). Cognitive, Piagetan, and operant approaches will be considered, with the emphasis on the experimental literature rather than on testing.

Course emphasizes critical evaluation of the literature and will have essay examinations and one major paper as a course requirement.
Prerequisites: PSYB01, PSYB07. PSYB45, PSYC34 and PSYC42 also recommended.
Session: Winter Day
G. Biederman

PSYC54S Cognition and Representation
Telephone ID #: 25735453
Recent theories of perception and representation relevant to skill in the use of pictures and language.

Topics may include making and interpreting metaphors, recognizing cross-modal equivalence, learning how to draw and symbolize, and effects of perceptual and cognitive handicaps 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.

Teaching method includes lectures and student presentations.
Prerequisite: PSYB07, a PSYB20-series or a PSYB50- series half-course in PSY
Session: Winter Evening
J. Kennedy

PLIC55F 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 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: (PLIB55S)(JLPB55S), JLP374H
Prerequisite: One full-course equivalent in LIN and one full-course equivalent in PSY
Session: Winter Day
R. Smyth
Offered every year

PSYC58F Experimental Psychology Microcomputer Laboratory
Telephone ID #: 25735833
Examination of the widespread impact of computers in experimental psychology. 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 cognition.

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 enrolment: 20.
Exclusion: PSY306H and any course in Computer Science
Prerequisite: PSYB01, PSYB07 (or equivalent)
Session: Winter Evening
C. MacLeod

PSYC61S Brain Mechanisms and Behaviour: II
Telephone ID #: 25736153
A continuation of PSYB60, emphasizing motivation and learning. Topics covered under the category of motivation include: physiological basis of eating, drinking and sexual behaviour, sleep, and the neural correlates of reward. Topics covered under learning include: physiological processes and memory, structural basis of learning and memory, biochemistry and memory.

Three hours of lecture per week.
Exclusion: PSY290Y
Prerequisite: PSYB60, plus one other B-level half- course in PSY; PSYB07 and PSYC08 are recommended.
Session: Winter Day
N. Milgram

PSYC63Y Physiological Psychology Laboratory
Telephone ID #: 25736363
Instruction in a variety of techniques used in investigations of nervous system function. The course is mainly intended for students who are pursuing a Specialist Programme in the Neurosciences.

The procedures covered may include: (i) histology (preparing, cutting and staining neural tissue); (ii) lesioning specific regions of the central nervous system; (iii) behavioural techniques; (iv) electrical stimulation of the brain; (v) electro-physiological recording techniques.

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. The course involves a series of laboratory projects.
Exclusion: PSY399Y
Prerequisite: PSYA01 and permission of instructor
Corequisite: PSYB60, PSYC61; PSYB07 and PSYC08 are recommended
Session: Winter Day
T. Petit/J. Mendelson

PSYC64S Psychobiology of Sensory Systems and Their Development
Telephone ID #: 25736453
This course will focus on the mechanisms by which the nervous system processes sensory information and how these sensory circuits can be modified during development. The neural substrates of sensory transduction, as well as transmission and integration along organized pathways will be examined.

The topics covered under development include embryonic development, developmental plasticity (including effects of environment and experience on brain structure) and aging. The topics included under sensory systems are: receptor mechanisms, organization and sensory physiology of each of the sensory systems (olfaction, visual, somatosensory, auditory, vestibular), and models of sensory processing.

Three hours of lecture per week.
Prerequisite: PSYB60
Session: Winter Day
N. Milgram

PSYC82F Theoretical Psychology
Telephone ID #: 25738233
An introduction to the problems and methods of theoretical analysis in psychology

The emphasis of the course is on

developing sophistication in the techniques of theoretical analysis. The aim is to enable the student to read and evaluate the current literature in theoretical psychology.
Exclusion: PSY301H
Prerequisite: PSYB07 or permission of instructor
Session: Winter Day
T. B. A.

PSYC85F 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, Behaviourism and Cognitivism. 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 behaviour 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 enrolment: 25.
Exclusion: PSY300H
Prerequisite: Two B-level half-courses in Psychology
Session: Summer Evening, Winter Day
G. Cupchik

PSYC90F/S/H
PSYC93F/S/H Supervised Study in Psychology
A reading or research project.

These courses provide an opportunity to investigate an area in depth after completing basic coverage in regularly scheduled courses. They are not intended as substitutes for advanced courses in fields where these are available. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Frequent consultation with the supervisor is necessary and extensive library research and/or data collection will be required. Such a project will culminate in a written submission.
Exclusions for PSYC90: NROC90, PSY303H, PSY304H
Exclusions for PSYC93: NROC93, PSY303H, PSY304H
Prerequisite: Three full-course equivalents in Psychology; permission of instructor.
Session: Summer Day, Summer Evening, Winter Day, Winter Evening
Supervision by a faculty member

PSYD16F Critical Analysis in Social Psychology
Telephone ID #: 25741633
Progress in psychology is predicated on developments in both theory and methodology. The primary goal of the course is to enhance skills for critically analyzing both domains in Social Psychology. European and North American approaches to criticism are compared. Evolutionary and revolutionary models of development are contrasted. Disciplinary and professional aspects of social psychology are discussed in relation to scientific progress. Special emphasis is placed on social and personality factors which shape theory construction and validation. Examples are drawn from both cognitive and motivational approaches to social phenomena. Finally, the analogy between Piaget's account of intellectual development in the child and developments in social psychology is considered. Limited enrolment: 20.
Exclusion: PSY420H
Prerequisite: PSYC11 or PSYC12 or PSYB10 plus one C-level half-course in PSY
Session: Winter Day
G. Cupchik

PSYD18F Psychology 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: PSY323H
Prerequisite: PSYB10 plus two C-level half-courses in PSY
Session: Winter Day
K. Dion

PSYD20S 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: PSY410H
Prerequisite: PSYC21 or PLIC24 (JLPC24) or PSYB20 plus one C-level half-course in PSY
Session: Winter Evening
M. Schmuckler

PSYD33S Current Topics in Abnormal Psychology
Telephone ID #: 25743353
An intensive examination of selected issues and research problems in abnormal psychology. The specific content will vary from year to year. Limited enrolment: 20.
Exclusion: PSY440H
Prerequisite: PSYB32 plus one C-level half course in PSY
Session: Winter Day
S. Zeitlin

PSYD34F Human Intelligence
Telephone ID #: 25743433
Part I of this course reviews the classical theories as well as past research strategies and findings in the field of human intelligence. Part II examines current work in the area. Part III critically considers the concept of heritability, how it is estimated, and its application to the investigation of individual and group differences on IQ tests. Limited enrolment: 20
Prerequisites: PSYB01 and PSYB07. PSYC08 and PSYC34 are recommended.
Session: Winter Day
D. Bors

PSYD50S 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: PSY470H, PSY471H
Prerequisite: PSYB57 plus one C-level half course in PSY
Session: Winter Day
M. Smith

PSYD53F Psychology and the Law
Telephone ID #: 25745333
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: PSY325H
Prerequisite: a B50-series half-course plus one C- level half-course in PSY
Session: Summer Evening, Winter Day
M. Smith

PLID55F Disorders of Speech and Language
Telephone ID #: 34845533
Pathologies of language acquisition, comprehension and production. Topics include the anatomy and physiology of the speech and hearing mechanism, voice disorders (hoarseness, harshness, dysphonia, alaryngeal speech), functional articulation disorders, cleft palate, aphasia, apraxia, dysarthria, language delay, language learning disabilities, mental retardation, hearing and auditory processing disorders, and the identification of pathologies in speakers of dialects or languages other than that of the clinician.
Exclusion: (JLPD55F)
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 PLI.
Session: Winter Day
R. Smyth
Offered 1993/94
Not offered 1994/95

PSYD60F Current Topics in Physiological Psychology
Telephone ID #: 25746033
An intensive examination of selected issues and research problems in comparative and physiological psychology. Limited enrolment: 20.
Exclusion: PSY390H
Prerequisite: PSYC61
Session: Winter Day
G. Ivy

PSYD62S Neuroplasticity: Mechanisms and Function
Telephone ID #: 25746253
Neuroplasticity refers to the modification of neural tissue in response to experience which provides the foundation for learning, memory, and other complex mental processes. This course will explore the mechanisms underlying neuroplastic change and its functional significance. There are two major goals: (1) to survey and critically discuss the most important

contemporary research on neuroplastic processes; (2) to provide the necessary background so that students are capable of giving a sophisticated answer to the question of what changes occur in the nervous system during learning and memory and what mechanisms underlie these changes. Limited enrolment: 20.
Prerequisite: PSYB60, PSYC61
Session: Winter Evening
T. Petit

PSYD67S Psychobiology of Aging
Telephone ID #: 25746753
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
Prerequisite: PSYB60
Corequisite: PSYC61
Session: Winter Day
G. Ivy

PSYD98Y Thesis in Psychology
Telephone ID #: 25749863
This course offers the opportunity to engage in a year-long research project under the supervision of an interested member of the faculty in Psychology. The project will culminate in a written report in the form of a thesis and a defense of that report. During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their 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 studies are especially encouraged to enrol in the course. Before enroling students must obtain the signature of their intended supervisor.
Exclusion: NROD98, PSY400Y
Prerequisite: PSYB01, PSYB07, PSYC08, Psychology Specialist
Session: Winter Day
Co-ordinator: T. B. A.

Courses Not Offered in 1993-94

PLIC24S Developmental Psycholinguistics
Exclusion: (JLPC24S), JLP315H
Prerequisite: one full-course equivalent in LIN and one full-course equivalent in PSY, and one B-level full-course equivalent in either LIN, PSY or PLI (JLP)

PSYD15F Current Topics in Social Psychology
Exclusion: PSY420H
Prerequisite: PSYC11, PSYC12 or PSYB10 plus one C-level half-course in PSY

PSYD22S Socialization Processes
Exclusion: PSY311H, PSY410H
Prerequisite: PSYB10 and PSYB20 plus one C-level half-course in PSY

PSYD80S Current Topics in Theoretical Psychology
Prerequisite: PSYC82

Russian

Discipline Representative:
C. V. Ponomareff (287-7166)
A millenium has shaped Russia's destiny. Today she is a major world power. It is especially important for us to understand her culture and her historical and cultural impact on Western society. Interested students should consider the courses listed below. Elementary and intermediate courses in language are currently not offered, but students with a reasonable knowledge of the language may read the texts in the original in the supervised reading courses RUSC02H-C05Y.

HUMB06F/S	Russian Shorter Fiction of the 19th and 20th Centuries
HUMB07F/S	Russian Culture
HUMB42Y	The Modernist Adventure
HUMB44F/S	Disaster and the Literary Imagination
HUMB46F/S	The Individual and the Totalitarian State
HUMB58Y	The Nineteenth-Century Russian Novel, 1830-1880
HUMC53F/S	Beyond Nihilism: Visions of Renewal

RUSC02H
RUSC03H
RUSC04H
RUSC05Y **Supervised Reading**
Supervised reading courses are designed for individual students who wish to pursue specific lines of interest in Russian language and/or literature. Classes meet every other week and students are expected to write a research paper or examination on their selected topic of work.
Prerequisite: At least two years of Russian language or permission of instructor.

Major Programme in Society, Values and Medicine

The Major Programme in Society, Values and Medicine is no longer offered. Students currently registered in the Programme will be allowed to complete it.

Sociology

Discipline Representative: A. Sev'er (287-7296)
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 and how it functions, what accounts for social cohesion, social stratification, social mobility, and social change. It studies the consequences of co-operation, competition, and conflict.

Students may wish to take Sociology courses as a part of a general education, in anticipation of the usefulness of certain courses in future occupations or professions, or as part of a Specialist, Major or Minor Programme.

The introductory course, SOCA01, is intended to familiarize students with the special theories, methods and questions of sociology as a part of a liberal education. In addition, the SOCA01 course provides a minimum background of knowledge about sociology, and hence is a prerequisite to many of the more advanced courses.

Students who want to learn about certain areas of sociology which may be useful in later occupational situations may consult faculty advisors who are prepared to assist them in course selection and provide informal advising. There are no formal requirements for these special areas and they will not be designated on diplomas.

The faculty advisers for special areas of concentration are:
Social Work - TBA
Urban Studies - Prof. J. Hannigan
Education - Prof. J.A. Lee

Specialist Programme in Sociology
Supervisor: S. Ungar 287-7299
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 SOCA01Y Introduction to Sociology
2 SOCB01Y Methods in Social Research
3 SOCB06F/S Social Statistics
4 SOCB03Y History of Social Thought
5 Two full-course equivalents at B-level in Sociology
6 SOCC05Y 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: S. Ungar 287-7299
The Programme requires completion of seven full-course equivalents in Sociology including:

1 SOCA01Y Introduction to Sociology
2 SOCB01Y Methods in Social Research
3 SOCB06F Social Statistics
4 SOCB03Y History of Social Thought
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: S. Ungar 287-7299
The Programme requires completion of four full-course equivalents in Sociology including:

1 SOCA01Y Introduction to Sociology
2 Three full-course equivalents in Sociology, at least one of which must be at the C level.

SOCA01Y Introduction to Sociology
Telephone ID #: 28610163
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: SOC101
Session: Winter Day, Winter Evening,
S. Ungar, J. Lee, M. MacKinnon

SOCB01Y 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 sets provided by the instructor, students will be taught how to interpret tables and to employ data to test hypotheses.
Exclusion: SOC200
Prerequisite: SOCA01Y
Session: Winter Day
A. Sev'er, P-C. Hsiung

SOCB03Y History of Social Thought
Telephone ID #: 28620363
A study of the development of social thought from the ancient periods to contemporary sociology. The focus will be on the ideas of those thinkers who have historical significance and contemporary relevance. The course begins with a basic discussion of the nature and types of social thought. It will then look at the ideas on society in Ancient China, Greece and Rome, and the Medieval times. It will then analyze the beginnings of modern social thought with special emphasis on the emergence of sociology and the work of such theorists as Comte, Marx, Durkheim, Spencer, Simmel and Weber. Finally, contemporary schools of sociological theory will be considered.
Exclusion: SOC203
Prerequisite: SOCA01Y
Session: Winter Evening
W.W. Isajiw

SOCB04Y Political Sociology
Telephone ID j#: 28620463
Political Sociology is concerned with power in its social context. The 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, J. Lee

SOCB06F Social Statistics
Telephone ID #: 28620633
A consideration of elementary statistics including the summarizing of data, the logic of statistical decision-making and a number of common statistical tests. Statistics is a basic tool used by sociologists. An understanding of statistics is necessary for the student who wants to become an informed reader of social research. A working knowledge of elementary algebra is required. However, the lecturer will undertake brief reviews of mathematics as the need arises. This course is intended to supplement SOCB01.
Exclusion: ANTC35, ECOB11, PSYB07, STAB22, SOC201
Prerequisite: SOCA01Y
Session: Winter Day
S. Ungar

SOCB10Y Social Class and Social Stratification
Telephone ID #: 28621063
Description and analysis of the nature of social stratification with emphasis on the basis 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: SOC301
Prerequisite: SOCA01Y
Session: Winter Day
M. Hammond

SOCB12Y Sociology of the Family
Telephone ID #: 28621263
The sociological study of the family in contemporary Western society. At a micro level, the focus is on the family as a small group, emphasizing the family life cycle, member roles, interaction patterns and interpersonal problems in family relations. At a macro level, the focus is on the family in its community, institutional and historical setting, emphasizing the various social factors which affect family life and its changing nature.
Exclusion: SOC214, SOC302
Prerequisite: SOCA01Y
Session: Winter Day
P-C. Hsiung

SOCB18Y Sociology of Deviant Behaviour
Telephone ID #: 28621863
The analysis of the social processes by which behaviour is defined and treated as criminal, immoral, disgusting, sick, or merely eccentric; the establishment and administration of sanctions, treatment and other controls; deviant subcultures; specific categories of deviance, such as, crimes against persons, "victimless crimes"; mental illness, sexual deviation and alcoholism.
Exclusion: SOC212
Prerequisite: SOCA01Y
Session: Summer Evening
TBA

SOCB20Y Ethnic and Race Relations
Telephone ID #: 28622063
A study of the structure and processes in a society made up of a variety of ethnic and racial groups. The focus will be on Canada. The course will study ethnic stratification immigration, prejudice and discrimination, ethnic social mobility and ethnic conflict, assimilation and ethnic identity retention, and the problem of integration of society. Specific topics will include: conflict of generations, stereotyping, Canadian bilingualism and multiculturalism and others.
Exclusion: SOC210
Prerequisite: SOCA01Y
Session: Summer Evening
TBA

SOCB33Y Sociology of Work and Industry
Telephone ID #: 28623363
An introductory examination of the nature of work and people's occupational roles and behaviour in modern industrial settings.
Students will be exposed to some of the major concepts, theories and empirical research in the sociology of work and industry. Topics will include an overview of the process of capitalist industrialization, changes in the occupational structure of the labour force, orientations to work, sources of job satisfaction and dissatisfaction, women and work, the impact of new technology, unions, employment and unemployment, professionalisation. Two hours of lectures per week.
Exclusions: (SOCC07 and SOCC13)
Prerequisite: SOCA01
Session: Winter Day
J. Tanner

SOCC01F Sociology of Revolution
Telephone ID#: 28630133
The phenomenon of revolution as defined, described and analyzed from comparative and historical perspectives. Specific case-studies are utilized in order to explain the causes and courses of revolutionary leadership, mobilization, and strategy. Particular attention is paid to revolution as both cause and effect of major social change.
Prerequisite: SOCA01Y, SOCB03 and one other B-level full-course equivalent in Sociology or permission of instructor
Session: Winter Day
R. O'Toole

SOCC03F Collective Behaviour
Telephone ID #: 28630333
The study of uninstitutionalized group behaviour - crowds, panics, crazes, riots and the genesis of social movements.
Prerequisite: SOCA01 and one B-level full-course equivalent in Sociology.
Session: Winter Day
J. Hannigan

SOCC04S Social Movements
Telephone ID #: 28630453
The development of an approach to social movements which includes the following: the origin of social movements, mobilization processes, the career of the movement and its routinization. The course readings will be closely related to the lectures, and a major concern will be to link the theoretical discussion with the concrete readings of movements.
Prerequisite: SOCA01 and one B-level full-course equivalent in Sociology.
Session: Winter Day
J. Hannigan

SOCC05Y Contemporary Social Theory
Telephone ID #: 28630563
A consideration of basic questions underlying sociological thinking as they arise in the work of contemporary theorists and theoretical schools. Students will be expected to develop an informed, critical perspective on current debates within the discipline.
Exclusion: SOC313
Prerequisite: SOCB03Y and one other B-level full- course equivalent in Sociology
Session: Winter Day
M. Hammond

SOCC06S Applied Sociology
Telephone ID #: 28630653
Use of sociological theory and methodology to clarify policy issues in organizations. Evaluation of agency services, assessment of community need or demand for services, analysis of

unanticipated consequences.
Prerequisite: Two full-course equivalents in Sociology
Session: Winter Day
J. Lee

SOCC10F Sex, Self and Society
Telephone ID #: 28631033
The single most important influence on our behaviour is being male or female. Gender is built into how our institutions are put together, how we are socialized, and how opportunities and access to scarce resources are structured. This course is a sociological examination of gender as category of analysis, research and social experience. It will focus on the social construction of gender, gender ideology, the impact of gender on the individual and the social structure, the maintenance of gender inequality in the labour force, in the family, in education and in social interaction.
Exclusion: SOC365
Prerequisite: SOCA01 and SOCB12; or permission of instructor.
Session: Winter Day
P-C. Hsiung

SOCC11S Sociology of Law and Law Enforcement
Telephone ID #: 28631153
Studies of existing legal systems, the process of creation of legislation, court interpretation of law, and the law enforcement institutions.
Prerequisite: SOCB18
Session: Winter Day
J. Tanner

SOCC16S Sociology of Conflict and Co-operation
Telephone ID #: 28631653
This course will first examine the functions of conflict, especially the use of conflict in the creation of moral dramas (i.e., of good vs. evil, of heroes and of villains). We will examine the conflict between persons and nature; and, in greater detail, the Cold War and the Arms Race. Lectures and films will be used.
Prerequisite: SOCA01Y and SOCB04 or SOCB10 or SOCB20; or permission of instructor.
Session: Winter Day
S. Ungar

SOCC17S Social Change in the Third World
Telephone ID #: 28631753
Sociological studies of stratification, politics, religion, education, and kinship organization in countries of Africa, Asia Latin America.
Prerequisite: Two full-course equivalents in Sociology, one of which must be a B-level. SOCC33 (SOCCB14) and SOCC35 (SOCB16) recommended.
Session: Winter Day
J-L. deLannoy

SOCC18S Sociology of Art and Culture
Telephone ID#: 28631833
A seminar on the production and appreciation of art and culture in various societies. Lectures and discussions will focus on literature, film and painting, but students may choose from any form of "high culture" for special research.
Exclusion: (SOCC18Y)
Prerequisite: SOCA01, SOCB03 and one other B-level full-course equivalent in Sociology or permission of instructor.
Session: Summer Evening
R. O'Toole

SOCC24F Changing Family Life in Canada
Telephone ID #: 28632453
Examination of the major changes in the structure of the family in Canada, and its consequences for family life.
Prerequisite: SOCA01, SOCB12 and one other B-level full course in Sociology.
Session: Winter Day
A. Sev'er

SOCC25S Comparative Ethnic and Race Relations
Telephone ID #: 28632553
A comparative study of relations between diverse ethnic and racial groups in selected societies. The purpose of the course is to develop a critical understanding of the process of intergroup relations. The course will compare the patterns of interethnic relations in North America with those in selected European countries, Africa, Asia and Latin America.
Prerequisite: SOCB20 and at least one more B-level full-course equivalent in Sociology.
Session: Winter Day
W.W. Isajiw

SOCC28F Sociology of Aging
Telephone ID #: 28632833
An examination of the latter stages of the family life cycle, with special reference to the period following middle age, and including social and psychological dimensions of aging, changing roles, departure of children, the significance of retirement, problems of adjustment to aging, the place of the aged person in the modern family, and bereavement.
Prerequisite: SOCA01 and one B-level full-course equivalent in Sociology.
Session : Winter Day
J. Lee

SOCC30F Criminal Behaviour
Telephone ID #: 28633033
An advanced study of the causes and consequences of criminal behaviour, with special emphasis on Canada.
Prerequisite: SOCB18
Session: Winter Day
J. Tanner

SOCC33Y Comparative Social Structure
Telephone ID #: 28633363
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: SOC310
Prerequisite: SOCA01Y, and two B-level full-course equivalents in Sociology
Session: Winter Day
J-L. deLannoy

SOCC34Y Sociology of Mass Media and Communications
Telephone ID #: 28633463
The 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: (SOCB15Y)
Prerequisite: SOCA01
Session: Winter Day
J. Hannigan

SOCC35Y Social Change
Telephone ID #: 28633563
The accelerating rate of social change, the uneven rate of change in sectors of our society and between various societies throughout the world, and the consequent social crises, are evident in the daily media. A convincing analysis and explanation of social change is less obvious. This course will examine major themes of change, including industrialization, modernization, urbanization, automation, biogenetics, sexualization and militarization. We will examine competing theoretical models for analysis of social change, and arrange student research for first-hand study of interesting aspects of social change in Canada.
Prerequisite: SOCA01, SOCB03 and one other B-level full-course equivalent in Sociology or permission of instructor.
Session: Winter Day
J-L deLannoy

SOCD40F/S Supervised Independent Research
Student research by field methods, survey analysis or library or archival research. Regular supervision of data collection and analysis, culminating in a research report.
Prerequisite: Completion of at least fifteen full-course equivalents in Sociology and permission of instructor.
Exclusion: SOC390, SOC391, SOC392
Session: Summer Evening, Winter Day, Winter Evening
Staff

SOCD41F/S Supervised Independent Research
Student research by field methods, survey analysis or library or archival research. Regular supervision of data collection and analysis, culminating in a research report.
Prerequisite: Completion of at least fifteen full- course equivalents and permission of instructor.
Exclusion: SOC490, SOC491, SOC492
Session: Summer Evening, Winter Day, Winter Evening
Staff

SOCD42S Advanced Seminar in Sociological Theory
Telephone ID #: 28644233
Special topics in contemporary social theory, designed as a final year course for students taking a Specialist Programme in Sociology.
Exclusion: SOC440
Prerequisite: SOCB03 and SOCC05
Session: Winter Day
M. Hammond

SOCD43S Advanced Seminar in Research Methods
Telephone ID #: 28644353
Special topics in methodologies used in contemporary sociological research. Designed as a final year course for students taking a Specialist Programme in Sociology.
Prerequisite: SOCB01 and SOCB06
Session: Winter Day
S. Ungar

Courses Not Offered in 1993-94

SOCB02Y	Structure of Interpersonal Relations Exclusion: SOC202 Prerequisite: SOCA01
SOCB05Y	Urban Sociology Prerequisite: SOCA01Y
SOCB07Y	Small Groups Limit: 12 Prerequisite:SOCA01
SOCB26Y	Sociology of Education: Primary and Secondary Levels Exclusion: (SOCB24 and

SOCB25),SOC311
Prerequisite: SOCA01

SOCC19S Sociology of Knowledge
Prerequisite: SOCA01, SOCB03 and one other B-level full course equivalent in Sociology or permission of instructor

SOCC21Y Sociology of Religion: Exclusion: (SOCB21)
Prerequisite: SOCA01, SOCB03 and one other B-level full-course equivalent in Sociology or permission of instructor

SOCC22F Qualitative Methods in Social Research
Prerequisite: SOCA01 and one B-level course in Sociology.

SOCC26F Sociology of Urban Growth
Prerequisite: SOCA01, SOCB05 and one other B-level full-course equivalent in Sociology

SOCC29S Variant Family Forms
Prerequisite: SOCA01, SOCB12 and one other B-level full-course equivalent in Sociology

SOCC37F Environment and Society
Prerequisite: SOCA01 and two B-level full-course equivalents in Sociology

Spanish

Discipline Representative: R. Skyrme (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 these students as adjuncts to their plan of study or as an enrichment of their total programme.

Students intending to enrol in the Specialist Programme in Modern Languages, or the Specialist Programme in Management and Language, should consult the Calendar under Language Studies.

Students who wish to study *Spanish Literature* in the original may do so under Supervised Reading.

It is important that students enrolled in Spanish confer with the Supervisor at the earliest possible date in order to arrange a coherent and appropriately scheduled Programme.

Students in this Programme, or in the Modern Languages Specialist Programme, may satisfy some of their Programme requirements through the Study Elsewhere Programme operated by the University of Toronto in Granada.

Major Programme in Spanish Language
Supervisor: R. Skyrme (287-7147)
This programme offers a variety of courses in Spanish language, linguistics, and the culture of Spain and Spanish America. Seven full-course equivalents are required as follows:

SPAA01Y Introductory Spanish
SPAA02H Introductory Spanish Language Practice
SPAB01Y Intermediate Spanish
SPAB02H Intermediate Spanish Language Practice
SPAB04F Phonetics
SPAB12S History of the Spanish Language I
SPAB14F The Civilization of Spain I
and
SPAB15S The Civilization of Spain II
or
HUMC14Y Topics in Latin American Culture and Literature
SPAC01Y Advanced Spanish
SPAC21F Literary Language
SPAC22F History of the Spanish Language II

(Note: Students who have OAC Spanish or Grade 13 Spanish must complete, in place of SPAA01 and A02, one and one-half full course equivalents from SPA or HUM courses which concentrate on Spanish language, culture, or literature, to be arranged with the Supervisor.)

Language requirements will be waived by the Supervisor for students judged to have advanced knowledge of Spanish. Equivalent courses will be substituted in consultation with the Supervisor.

Minor Programme in Spanish
Supervisor: R. Skyrme (287-7147)
Four full-course equivalents are required in each of four variations of the Programme. Focus and linguistic emphasis vary with the level of students' language preparation:

1 Spanish Language
SPAA01Y Introductory Spanish
SPAA02H Introductory Spanish Language Practice
SPAB01Y Intermediate Spanish
SPAB15S The Civilization of Spain II (or another half course in SPA on advice of Supervisor)
SPAC01Y Advanced Spanish

2 Language and Hispanic Culture
Intended for students with OAC or Grade 13 Spanish or SPAA01Y and SPAA02H or permission of Supervisor
SPAB01Y Intermediate Spanish
SPAB15S The Civilization of Spain II
SPAC01Y Advanced Spanish
SPAC21F Literary Language (or another half course is SPA on advice of Supervisor)
HUMC14Y Topics in Latin American Culture and Literature

3 Language and Hispanic Culture
Intended for native speakers or permission of Supervisor
SPAB04F Phonetics
SPAB14F The Civilization of Spain I
SPAB15S The Civilization of Spain II
SPAC01Y Advanced Spanish
SPAC21F Literary Language
HUMC14Y Topics in Latin American Culture and Literature

4 Latin America
Intended for Native Speakers or permission of Supervisor
SPAB04F Phonetics
or
SPAC21F Literary Language
SPAC01Y Advanced Spanish
*ANTB03F The Americas: An Anthropological Perspective
*ANTC37S Prehistory of Mexico and Mesoamerica
HUMC14Y Topics in Latin American Culture and Literature
*SOCC17F Social Change in the Third World

* Students should check these courses for prerequisites.

SPAA01Y Introductory Spanish
and
SPAA02H Introductory Spanish Language Practice
These two courses must be taken simultaneously. Students who select SPAA01Y will automatically be registered in the appropriate section of SPAA02H.

SPAA01Y Introductory Spanish
Telephone ID #: 28710163
An elementary course for students with no knowledge of Spanish. Elements of Spanish grammar are studied and special emphasis is placed on oral practice.

This course stresses the development of the practical skills of understanding and speaking needed for the corequisite SPAA02H. Specially written dialogues are the working basis for both A01Y and A02H; the textbook is for reference only. Students are encouraged to use the Language Resource Room (R4104) to practise grammar and vocabulary skills with the help of specific computer programmes.
Exclusion: OAC Spanish or Grade 13 Spanish; SPA100, SPA103
Corequisite: SPAA02
Session: Winter Day
K. Gödde
Offered 1994/95 and 1995/96

SPAA02H Introductory Spanish Language Practice
Telephone ID #: 28710243
Practical application of language structures introduced in SPAA01Y.

Classtime is devoted to conversing in Spanish. Students participate in language games, develop dramatic skits, and prepare dialogues and conversations based on situations and topics introduced in the dialogues of SPAA01Y.
Exclusion: OAC Spanish or Grade 13 Spanish; SPA100, SPA103
Corequisite: SPAA01
Session: Winter Day
K. Gödde
Offered 1994/95 and 1995/96

SPAB01Y Intermediate Spanish
Telephone ID #: 28720163
A continuation of SPAA01Y.

Through oral practice, reading, videotape material, composition, translation, and dictation, this course will follow the format and methodology of SPAA01Y at a more advanced level. Three hours per week.
Exclusion: SPA220
Prerequisite: OAC Spanish or Grade 13 Spanish or SPAA01 and SPAA02
Corequisite: SPAB02 (for Major Programme in Spanish Language)
Session: Winter Day
P. León
Offered 1994/95 and 1995/96

SPAB02H Intermediate Spanish Language Practice
Telephone ID #: 28720243
A companion course to SPAB01Y.

This course concentrates on an intensive review of Spanish grammatical principles in the context of written exercises, compositions, and some

translations. It includes reading and discussion of a short contemporary work of literature.
Exclusion: SPA220
Prerequisite: OAC Spanish or Grade 13 Spanish or SPAA01 and SPAA02
Corequisite: SPAB01
Session: Winter Day
K. Gödde
Offered 1994/95 and 1995/96

SPAC01Y Advanced Spanish
Telephone ID #: 28730163
Intensive study of grammar and syntax; translation, composition, and oral practice.
Detailed examination of the subtleties of Spanish grammar through intensive practice in translation from and into Spanish, composition, and conversation. Three hours per week in lecture/tutorial format.
Exclusion: SPA320
Prerequisite: SPAB01
Session: Winter Day
R. Skyrme
Offered 1994/95 and 1995/96

SPAC02S Business Spanish
Telephone ID #: 28730253
The Spanish language in a business context.
The course is designed primarily for students in the Management/Language Programme but is open to all those interested in sharpening language skills particular to a career in the commercial world. Class sessions will be practical in focus and consist of such activities as translation, correspondence, and individual and group oral presentations complemented, where possible, by audio-visual and computer material. The aim is to develop facility in the vocabulary and structures of this specialized use of the Spanish language.
Pre or Corequisite: SPAC01Y
Session: Winter Day
K. Gödde
Not offered 1994/95
Offered 1995/96

SPAC21F Literary Language
Telephone ID #: 28732133
The examination of Spanish literature in relation to the resources of the language.
The translation and analysis of texts and the challenge of creative composition offer students who enjoy the shaping of language 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: (SPAB21)
Prerequisite: SPAB01
Session: Winter Day
R. Skyrme
Offered 1995/96
Not offered 1996/97

SPAC22F History of the Spanish Language II
Telephone ID #: 28732233
The Spanish language from the medieval period to the present.
Through analysis of texts from the ninth to the twentieth centuries, this course will focus on inherent changes in and external influences on the development of Castilian from a dialect in the medieval period into one of the major languages of modern times.
Two hours per week in tutorial format.
Exclusion: (SPAB22); SPA425
Prerequisite: SPAB12
Session: Winter Day
R. Skyrme
Offered 1995/96
Not offered 1996/97

SPAD01-D05F
SPADO6-D10S
SPAD11-15Y Supervised Reading
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. Student and instructor will work out the course's objectives, methods of approach, content, bibliography, and timetable.
Interested students should contact the Supervisor of Studies for guidance.
Exclusion: (SPAC02-C06), (C07-C10), (C11-C15); SPA490
Prerequisite: SPAC01
Session: Winter Day
K. Gödde, P. León, R. Skyrme
Offered 1994/95 and 1995/96

See also the following courses offered under Humanities:
HUMB42Y The Modernist Adventure
HUMB45S The Spanish Civil War: Fact to Fiction
HUMC14Y Topics in Latin American Culture and Literature

Courses Not Offered in 1993-94

SPAB04F Phonetics
Exclusion: SPA223
Pre- or Corequisite: SPAA01
Offered 1994/95
Not offered 1995/96

SPAB12S History of the Spanish Language I
Exclusion: SPA223
Prerequisite: SPAB04
Offered 1994/95
Not offered 1995/96

SPAB14F The Civilization of Spain I
Exclusion: (HUMB15), (HUMB09), (HUMC09); SPA250
Offered 1994/95
Not offered 1995/96

SPAB15S The Civilization of Spain II
Exclusion: (HUMB15) (HUMB09) (HUMC09) SPA250
Offered 1994/95
Not offered 1995/96

SPAD16Y Golden Age Spanish Drama
Prerequisites: One B-level course equivalent in Drama and permission of the Instructor.
Not offered 1994/95

Statistics

Discipline Representative: S. Chawla (287-7252)
Probability and statistics have developed over a period of several hundred years as attempts to quantify uncertainty. With its origins in modelling games of chance, probability theory has become a sophisticated mathematical discipline with applications in such fields as demography, genetics and physics.
Statistics is concerned with the proper collection and analysis of data, both to reduce uncertainty and to provide for its assessment via probability. Applications range from pre-election polling to the design and analysis of experiments to determine the relative efficacies of different vaccines.
STAB22F and STAB47S serve as an introduction to the discipline. The C-level courses build upon the introductory material to provide a deeper understanding of statistical methodology and of its practical implementation.

Please refer to the Physical Sciences section of the Calendar for the following Programmes.

Specialist Programme in Computer Science and Statistics

Specialist Programme in Co-op Computer Science and Physical Sciences

Specialist Programme in Mathematics and Statistics

Major Programme in Mathematical Sciences (Statistics)

Major Programme in Statistics
The Major Programme in Statistics is no longer offered. Students currently registered will be allowed to complete it.

STAB22F Statistics
Telephone ID #: 28922233
This course is an introduction to probability and statistics. The emphasis of the course is on motivation and applications and the treatment is essentially non-mathematical. A statistical computer package is used for most computations; however, no previous experience with a computer is required. The course covers: descriptive statistics, probability and expectation, correlation and regression, sampling, experimental design and methods of statistical inference.
Exclusion: ANTC35, (BIOB28), ECOB09, ECOB10, (ECOB11), GGRB31, PSYB07, SOCB06, (STAB52), STA222
Session: Winter Day

STAB47S Introduction to Probability Theory and Mathematical Statistics
Telephone ID #: 28924753
This course is an introduction to the mathematical theory of probability and statistics. The course covers: probability models, marginal and conditional probability, expectation, the Weak Law of Large Numbers and the Central Limit Theorem, statistical models, the likelihood function, estimation, hypothesis testing, linear models.
Exclusion: STA242, 262
Prerequisite: STAB22 or one of its exclusions and MATHB41
Session: Winter Day

STAC42S Multivariate Analysis
Telephone ID#: 28934253
Linear algebra for statistics. Multivariate distributions, the multivariate normal and

some associated distribution theory. Multivariate regression analysis. Canonical correlation analysis. Principal components analysis. Factor analysis. Cluster and discriminant analysis. Multidimensional scaling. Instruction in the use of SAS.
Exclusion: STA437
Prerequisite: STAC67

STAC52S Experimental Design
Telephone ID#: 28935253
The statistical aspects of collecting and analyzing experimental data. Complete randomization and restricted randomization schemes.
Prerequisite: STAB47S

STAC67F Regression Analysis
Telephone ID#: 28936733
Orthogonal projections. Univariate normal distribution theory. The linear model and its statistical analysis, residual analysis, influence analysis, collinearity analysis, model selection procedures. Analysis of designs. Random effects. Models for categorical data. Nonlinear models. Instruction in the use of SAS.
Exclusion: STA302
Prerequisite: STAB47
Session: Winter Day

Courses Not Offered : 1993-94

STAC57S	Time Series Analysis Exclusion: STA457 Prerequisite: STAC62F
STAC62F	Stochastic Processes Exclusion: STA347 Prerequisite: STAB47S

Women's Studies

Discipline Representative: D. M. James (287-7170)
Women's Studies examines women's roles, women's work, and women's contributions past and present to society. Because men have been the more dominant gender, 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, Fine 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 Programme 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: L. Carney (287-7164)

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	WSTA01Y	Introduction to Women's Studies
2	WSTB01F/S	Feminist Approaches to the Humanities
	and either	
	WSTB02F/S	Feminist Approaches to the Social Sciences
	or	
	WSTB03F/S	Feminist Approaches to Science
3	Four and one-half full-course equivalents from the list below (students should check course descriptions for prerequisites):	
	ANTC11Y	The Anthropology of Women and Gender
	CLAC01F/S or CLAC02F/S	Selected Topics in Classical Literature*
	DRAB26S	Women in the Theatre
	ENGB50Y	Women and Literary Studies
	ENGD10-59F/S	Studies in Major Writers*
	ENGD70-89F/S	Selected Topics in English*
	FARB66Y	Women and Visual Art
	FREB81F/S	Women's Consciousness in French Literature
	FREB82F/S	Women and Literature in France
	GGRC06F/S	Women and the City

HISC10Y	The Sexes Since 1350
HISC45F/S	Immigrants and Race Relations in Canadian History
HISD10F/S	History of Feminism Since the 18th Century
HISD46F/S	Selected Topics in Canadian Women's History
LINC28F/S	Language and the Sexes
PHLB05F/S	Social Issues*
PHLB13F/S	Philosophy and Feminism
PHLC85F/S	Seminar in Philosophy: Feminism
PSYD18F/S	Psychology of Gender
PSYD22F/S	Socialization Processes
SOCB12Y	Sociology of the Family
SOCC10F/S	Sex, Self and Society*
SOCC29F/S	Variant Family Forms*
WSTB11Y	Race, Class and Gender
WSTB12F/S	Women: Issues of Violence and Safety
WSTC10Y	Women and Development
4 WSTD01H	Senior Project in Women's Studies
or WSTD02H	Women's Studies: Research and Methods

* indicates students should check if topics of the year have significant elements pertaining to women.

The Minor Programme in Women's Studies
The Minor Programme offers a more concentrated course of study designed primarily for students who wish to stream their Women's Studies course work into a particular area.

Students must select four full-course equivalents as follows:

1	WSTA01Y	Introduction to Women's Studies
2	WSTB01F/S	Feminist Approaches to the Humanities
	or	
	WSTB02F/S	Feminist Approaches to the Social Sciences
	or	
	WSTB03F/S	Feminist Approaches to Science
3	Two full-course equivalents from the list in #3 of the Major Programme in Women's Studies	
4	WSTD01H	Senior Project in Women's Studies
	or	
	WSTD02H	Women's Studies: Research and Methods

WSTA01Y Introduction to Women's Studies
Telephone ID #: 31710163
An interdisciplinary course which brings the perspectives of philosophy, psychology, political theory, sociology, anthropology, history, language, literature and the arts to 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 politics of the family including 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.
Exclusion: (JHSA01Y), NEW260Y
Session: Winter Evening
Co-ordinator: L. Lange
Offered 1994/95 and 1995/96

WSTB01S Feminist Approaches to the Humanities
Telephone ID #: 31720153
An exploration of feminist critiques of traditional humanist enquiry.

A major focus of the course will be the examination of how feminist perspectives have enabled the reconception and reshaping of the liberal arts. How has the exposure of dominant assumptions about gender helped to question the traditional scope and methods of disciplines such as history, philosophy, fine arts, literature, and linguistics?
Prerequisite: WSTA01Y
Session: Winter Evening
C. Guberman
Offered 1994/95 and 1995/96

WSTB02F Feminist Approaches to the Social Sciences
Telephone ID #: 31720233
An examination of feminist alternatives to mainstream social science theories and research methods.

The theories and research methods that have dominated the social sciences since their inception are seen by feminists as male-centred. This course will reexamine these theories and methods, discuss their social consequences, and consider

alternative theories and methods designed by feminist scholars to be sensitive to the realities of women as well as men.
Prerequisite: WSTA01Y
Session: Winter Day
P. Sayne
Not offered 1994/95
Offered 1995/96

WSTB11Y Race, Class and Gender
Telephone ID #: 31721163
An overview of the complex interactions between three socially significant variables: race, class and gender in traditional and modern societies.

Drawing on both historical and contemporary patterns in diverse societies, the course offers feminist perspectives on the ways in which class as well as ethnicity or race have shaped the lives of women and men.
Prerequisite: WSTA01Y or permission of instructor.
Session: Winter Evening
TBA
Not offered 1994/95
Offered 1995/96

WSTB12F Women: Issues of Violence and Safety
Telephone ID #: 31721233
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 making communities safer, including strategies for prevention and education.
Prerequisites: WSTA01Y or permission of instructor.
Session: Winter Day
C. Guberman
Not offered 1994/95
Offered 1995/96

WSTC10Y Women and Development
Telephone ID #: 31731063
An examination of the role of women in developing countries, how development affects these women and the potential impact that women have on the development process.

Concerns which might be discussed include: the meaning of development for women; the division of labour, food production, and technology; fertility and family planning; migration patterns; the impact of economic development on women's roles, work and family life; women's influence on development and change; development strategies which include women.
Prerequisites: WSTA01Y or permission of instructor. Recommended: IDSB01Y or IDSB02S
Exclusion: NEW425Y
Session: Winter Day
P. Sayne
Not offered 1994/95
Offered 1995/96

WSTD01H Senior Project in Women's Studies
Telephone ID #: 31740143
Students will choose a topic of special interest to them from an area in which they have done some concentrated study, and undertake an in-depth investigation of the topic under the supervision of a Women's Studies faculty member.

Arrangements with the supervising faculty member must be made by the student before the end of the spring pre-registration period. A substantial essay, research project, or major presentation on the approved topic will be given to the supervising faculty member and a second evaluator will be appointed.
Exclusion: (JHSD01H)
Prerequisites: WSTA01Y; one of WSTB01F/S, WSTB02F/S, or WSTB03F/S; and two FCE's from the list in #3 of the Major Programme in Women's Studies (or permission of the instructor).
Session: Winter Day
Staff
Offered 1994/95 and 1995/96

Courses not offered in 1993/94

WSTB03F/S Feminist Approaches to Science
Prerequisite: WSTA01Y
Offered 1994/95
Not offered 1995/96

WSTD02H Women's Studies: Research and Methods
Prerequisite: WSTA01Y, WSTB02F/S and two full-course equivalents from the list in #3 of the Major Programme in Women's Studies (or permission of instructor).
Offered 1994/95
Not offered 1995/96

Stratford Summer Seminars

Every June and August, in Stratford, Ontario, the Division of Humanities organizes week-long Shakespeare Seminars. In each week these seminars accommodate 75 members, who are of all ages and who come from all over Canada and the United States. While a seminar is not in itself a degree course it may be taken in partial fulfillment of the requirements for DRAC20H Theatre Seminar. The seminars are useful adjuncts to undergraduate and graduate study of Drama and Theatre.

Each week members are provided with tickets to six productions in Stratford, and one production at the Blyth Festival. They participate in House seminars which provide an academic background to the plays, and attend seminars conducted by the Festival's leading actors, designers and directors. In 1991, the programme counted among its guests such actors as Barbara Bryne, Patricia Collins, Albert Millaire and Colm Feore.

The seminar programme maintains a large mailing list by which prospective members are given full details of the events for each summer. Students at Scarborough College are invited to contact either Professor Andrew Patenall or Ms. Joanne Hunter (287-7117) who will be pleased to provide them with further details of the programme. For inclusion on the mailing list, students should contact Ms. Hunter (H524) who will provide them with current newsletters, and ensure that they receive future newsletters. Full-time students to the age of 25 are provided with generous bursaries to defray the cost of theatre tickets.

The seminar programme also organizes theatre outings during the academic year, and occasionally brings distinguished actors into the college for seminars and master classes.

Since 1987, the programme has also conducted an annual theatre history seminar in the United Kingdom, usually during Reading Week. Over sixty pre-1914 theatres have been visited in London and the south-east, and in July 1991 a two-week seminar *Where Nightingales Sang*, toured fourteen theatres and Opera Houses in the north of England.

Admissions

The following is a brief description of the admission policies and procedures of the University of Toronto. Full information may be obtained from:

Admissions and Awards
University of Toronto
315 Bloor Street West
Toronto, Ontario, Canada
M5S 1A3

Telephone enquiries: (area code 416)
Admissions - 978-2190
Secondary School Liaison - 978-2771
Scarborough Campus Secondary School Liaison - 287-7563

General Admission Requirements to Scarborough College, University of Toronto

Candidates Applying from Ontario Secondary Schools

Admission Requirements for 1993-94

- 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 / Anglais
- Applicants must present credits to satisfy any pre-requisites of specific courses or specific programmes in which they intend to enrol.
- Applicants whose native language is not English and who have not studied full-time in an English language school system for **more** than two full years will be required to present proof of English facility by achieving appropriate standing on one of the following tests accepted by the University of Toronto: Test of English as a Foreign Language (TOEFL); Michigan English Language Assessment Battery; British Council English Language Testing Examination; Certificate of Proficiency in English Test (COPE).

Notes

- An English language school system must be located in a country where the first (native) language is English.
- Two full years refers to the successful completion of at least four courses in each of two regular academic years.
- Students who have **not** studied full-time in an English language school system for more than two full years may be exempted from presenting OAC English 1 among the six required OACs. Consult with Admissions and Awards regarding English Facility Requirements.

Note: The above English Facility policy is currently under review.

1972 to present:	6 Grade 13/OAC credits are required.
Before 1972:	7 Grade 13 credits are required.

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 on page 000 and after the description of each course in the Calendar.

The average 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 prerequisite courses, and supplementary information obtained through the Student Profile.

Other Canadian provinces
Alberta, Manitoba, Nova Scotia, Saskatchewan
- Grade 12

British Columbia
- before 1969: Grade 13 or 1st year University of British Columbia
- 1969 to present: Grade 12

New Brunswick
- before 1970: Grade 13 or 1st year University of New Brunswick
- 1970 to present: Grade 12

Newfoundland
- before 1986: 1st year Memorial University
- 1986 to present: Grade 12

Prince Edward Island
- before 1983: 1st year University of Prince Edward Island
- 1983 to present: Grade 12

Quebec
- 12 academic C.E.G.E.P. courses

Admission with Transfer Credit
Students who have completed work at other universities or at other Faculties or Schools of this University may be considered for admission with advanced standing credit. Credit is granted only for work which is considered appropriate for inclusion in an Arts and Science programme at the University of Toronto.

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 programme requirements as Scarborough College students. Students transferring from other divisions of the University of Toronto are exempt from this requirement.

Admission from Colleges of Applied Arts and Technology
1 Candidates who have completed a one-year CAAT programme (or one year of a two- or three-year CAAT programme) are not eligible for consideration for admission to the first university year unless they have also completed the final academic secondary school year of the jurisdiction in which they attended secondary school.
2 Candidates who have completed a two-year CAAT programme (or two years of a three-year CAAT programme) are eligible to be considered for admission to the first year of a degree programme.
3 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.

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 Summer Session or by October 1 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 above dates, and
3 achieve high standing in one Pre-university course, or

4 achieve high standing in two OACs completed after the student is 21 years old. One OAC must be English OAC I.

Students must receive permission from Admissions and Awards to qualify for consideration using these options. Therefore, consult **before** enroling in any of these courses. Students who wish to prepare for certain university programmes such as science programmes may have to do additional studies to ensure all of the prerequisites will be attained.

Note: Applicants who enrol in a Pre-university course as a refugee claimant must be officially recognized as a Convention Refugee or Permanent Resident at the time of admission to the faculty.

Pre-university courses are offered by Woodsworth College of the University of Toronto. Courses in English and History are available at the Scarborough campus.

Senior Citizens
The University admits Canadian citizens and permanent residents who are aged 65 by the first day of term into Arts and Science courses as Special Students. Tuition fees and normal admission requirements are waived. Call the Assistant Registrar - Admissions at 287-7529 for information concerning the application procedure.

Admission as Special Students
Special Students are those registered at Scarborough College but not proceeding towards a degree. Most Special Students have completed degree studies and are taking further courses for purposes of their own.

Admission as Special Students on a Letter Of Permission (Visiting Students)
Students with valid Letters of Permission from other accredited North American universities may register directly at Scarborough College, taking courses for transfer credit at their own home university. Visiting Student status does NOT imply acceptance as either a student proceeding towards a degree or a Special Student. Call (416) 287-7529 for applications.

Application procedures
Students currently enrolled in an Ontario secondary school should submit applications through their school's guidance office.

All other applicants should request application forms from Admissions and Awards, giving full details of their educational background and standing.

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

Applicants are strongly advised to submit application forms well in advance of the following deadlines:
Admission to the 1993 Summer Session:
Term I (beginning in May) - March 15
Term II (beginning in July) - May 15
(Note that applications from Visiting Students from other universities may be accepted after these dates...Call (416) 287-7529 to inquire.
Admission to the 1993 Winter Session:
(beginning in Sept.)
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 also 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. See also the chart that follows on prerequisites by programmes. For example, several of the Specialist Programmes in Management and Economics require MATA28Y which in turn requires the OACs in mathematics listed below.

Scarborough course	Prerequisite(s)	Recommended course(s)
Chemistry A02Y	Chemistry and Calculus	
Computer Science A57H	Calculus, and one of Algebra & Geometry or Finite Mathematics	
Computer Science A58H	Algebra & Geometry and Calculus	
Fine Art Studio	Studio Art or Equivalent	
French A10Y	French	
Environmental Science A03F		Mathematics and Science courses
Mathematics A04Y	Algebra & Geometry and Calculus	
Mathematics A26Y	Calculus, and one of Algebra & Geometry or Finite Mathematics	
Mathematics A28Y	Calculus, and one of Algebra & Geometry or Finite Mathematics	
Physics A01Y	Calculus, and one of Algebra & Geometry or Finite Mathematics	Physics
Physics A10F	Calculus, and one of Algebra & Geometry or Finite Mathematics	
Physics A11S	Calculus, and one of Algebra & Geometry or Finite Mathematics	

OAC Prerequisites by Program of Study

See also General Admission Requirements. ENGOAC1/Anglais is required for all programs.

Legend: Calc: Calculus; Alg&Geo: Algebra and Geometry; Fin: Finite; Chem: Chemistry; Spec: Specialist; Maj: Major; Min: Minor

Program	Required OACs	Recommended OACs
Co-operative Programs		
Adminstration (Co-op, Spec)		Calc; French or Language other than English
Arts Administration-Fine Art Studio option (Co-op, Spec)	Visual Art (or equivalent)	French; Calc
Environmental Science* (Co-op, Spec)	Calc; Alg&Geo or Fin; Chem	Biology; Physics
International Development Studies (Co-op, Spec)		Calc; French or Language other than English
Computer Science and Physical Science (Co-op, Spec)	Cal; Alg&Geo	Physics
Arts-Humanities		
The Arts-Fine Art Studio concentration (Spec)	Visual Art (or equivalent)	
Fine Art Studio (Spec, Maj)	Visual Art (or equivalent)	
French (Spec)	French (or equivalent)	
French/ Education of Teachers in (Spec)	French (or equivalent)	
French Language (Maj, Min)	French (or equivalent)	
French Lanuage and Literature (Maj)	French (or equivalent)	
German Language (Maj, Min)		German
Italian Language (Maj, Min)		Italian
Linguistics (Spec, Maj, Min)		Language other than English
Spanish Language (Maj, Min)		Spanish
Note: Most of the humanities programs do not require specific OAC preparation. However courses which develop writing and analytical skills are recommended.		
Management and Economics		
Economics (Spec)	Calc; Alg&Geo or Fin	
Economics (Maj)		Calc; Alg&Geo or Fin
Economics and History (Spec)		Calc or Alg&Geo or Fin
Economics and Mathematics (Spec)	Calc; Alg&Geo	
Economics and Political Science (Spec)		Calc or Alg&Geo or Fin
Management and Economics (Spec)	Calc; Alg&Geo or Fin	
Management and Economic Theory (Spec)	Calc; Alg&Geo or Fin	
Management and Language, with French option (Spec)	French (or equivalent); Cal or Alg&Geo or Fin	
Management and Language, with German, Italian or Spanish options (Spec)	Calc or Alg&Geo or Fin	appropriate language
Management (Spec)	Calc or Alg&Geo or Fin	
Social Sciences		
Anthropology with physical/archaeological focus (Spec)		"Sciences", Geography
Anthropology with cultural/social focus (Spec)		History; Geography; Language studies
Geography with human geography focus (Spec)		Geography;Economics; History
Geography with physical geography focus (Spec)		Geography; "Sciences"

Program	Required OACs	Recommended OACs
Social Sciences continued...		
Geography (Maj, Min)		Geography
International Development Studies (Maj)		Calc
Sociology (Spec, Maj, Min)		Calc or Alg&Geo or Fin
Note: None of the social science programs require specific OAC preparation. However courses which develop writing and analytical skills are recommended.		
Life Sciences		
Biological Sciences (Spec)	Cal; Alg&Geo or Fin; Chem	Biology; Physics
Biological Sciences (Maj, Min)		Biology; Calc; Chem
Cell and Molecular Biology (Spec)	Cal; Alg&Geo or Fin; Chem	Biology; Physics
Cognitive Science (Spec)	Cal or Alg&Geo or Fin	Biology; Phsyics
Cognitive Science with advanced computer science courses (Spec)	Cal; Alg&Geo	Biology; Physics
Cognitive Science (Maj)		Biology; Cal or Alg&Geo or Fin
Ecology and Evolution (Spec)	Cal; Alg&Geo or Fin; Chem	Biology; Physics
Neurosciences (Spec)	Cal; Alg&Geo or Fin; Chem	Biology; Physics
Neurosciences (Maj)	Cal; Chm	Biology
Psychology (Spec)		Biology; Calc; Physics
Psychology (Maj, Min)		Biology; Calc
Physical Sciences		
Astronomy, Mathematics and Physics (Spec)	Cal; Alg&Geo	Physics
Astronomy and Physics (Maj)	Cal; Alg&Geo or Fin	Physics
Chemistry (Spec, Maj)	Cal; Alg&Geo or Fin; Chem	Physics
Chemistry and Biochemistry (Spec)	*Cal; Alg&Geo or Fin; Chem*	*Biology; Physics*
Biochemistry (Maj)	Cal; Chem	Biology;
Computer Science (Spec)	Cal; Alg&Geo	Physics
Computer Science for Data Management (Spec)	Cal; Alg&Geo	Physics
Computer Science and Mathematics (Spec)	Cal; Alg&Geo	Physics
Computer Science and Statistics (Spec)	Cal; Alg&Geo	Physics
Environmental Chemistry (Spec)	*Cal; Alg&Geo or Fin; Chem*	*Biology; Physics*
Environmental Earth Science (Spec)	Cal; Alg&Geo or Fin; Chem	Biology; Physics
Environmental Science* (Spec, Maj)	Cal; Alg&Geo or Fin; Chem	Biology; Physics
Mathematics (Spec)	Cal; Alg&Geo	Physics
Mathematics and Statistics (Spec)	Cal; Alg&Geo	Physics
Physical Science (Spec)	Cal; Alg&Geo or Fin; Chem	Physics
Mathematical Sciences (Maj)	*Cal; Alg&Geo*	

* Environmental Science programs will be offered subject to final approval by Governing Council.

Awards

Unless specified the following awards do not require an application; all Scarborough College undergraduate degree students with excellent academic standing are considered. 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" binder in Room S415.

A general condition for holding an entrance or in-course award is that the student must register at Scarborough College in the following academic year. Students who have been awarded a scholarship which is based on enrolment in a particular programme of study must continue in that programme to receive the award. Scarborough College may not award a scholarship, if, in a particular year, the academic achievement of the candidate is not of high standard.

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 Scholars 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 Admission 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 which are similar to the National Scholarships, but with a value of $2,200 per year. Ontario secondary school students should contact their high school guidance offices for scholarship applications and information. All other students should write to University of Toronto, Admissions and Awards, 315 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 $1,500, 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 can 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 Scarborough College.

Frederick A. Urquhart Admission Scholarships
Eight scholarships are awarded to students entering first year on the basis of exceptional academic achievement in secondary school. The scholarships are awarded in honour of Professor Emeritus F.A. Urquhart, a distinguished entomologist.

University of Toronto, Scarborough College Admission Scholarships
Approximately forty scholarships are awarded to students on the basis of excellent academic achievement.

Scarborough College Alumni Admission Award
Awarded to a graduate of a City of Scarborough high school (public or separate) who has provided evidence of valuable community service and demonstrated high academic standing. Applications are mailed to Scarborough schools in February.

Scarborough Alumni Entrance Scholarship
Awarded to a student entering first year on the basis of academic excellence in the secondary school programme.

Warner-Lambert Admission Scholarship
Awarded to a student entering first year on the basis of academic excellence in the secondary school programme.

Ting Sum Tang Memorial Entrance Scholarship
Awarded to a student on the basis of excellent academic achievement in the secondary school programme.
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 identify outstanding undergraduates completing 1st, 2nd and 3rd years as University of Toronto Scholars. It is expected that these top students will receive awards of at least $1,000. The first awards under this programme will be made to students completing first year in 1993.

A. D. Allen Scholarship
Awarded to the outstanding student in each year at Scarborough College, in any field of study. The scholarships are awarded in memory of Dr. A.D. Allen, a former principal of Scarborough College.

Vincent Bladen In-course Scholarships
A total of six scholarships are awarded on the basis of exceptional academic achievement at the completion of each year of study. The scholarships are awarded in memory of Professor V. Bladen, a former member of the faculty in Economics.

Scarborough College In-course Scholarships
Awarded to the outstanding students in each year at Scarborough College.

Stanley Kosta Todorow 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.

The University of Toronto Women's Association Lois Dove Memorial Scholarship
Awarded to a student on the basis of excellent academic achievement in the third year of a four year undergraduate degree programme.

The Ali Tayyeb Scholarship
Awarded to a student who demonstrates excellent scholarship in political geography, geography of resources, studies of developing nations, Canadian studies, or an appropriate related field. The scholarship is awarded in memory of Professor Ali Tayyeb, a former member of the faculty in Geography. Suitable candidates are nominated by members of the Scarborough College faculty.

Scarborough Campus Student Council Prizes
Awarded to a student in good academic standing entering the second, third or fourth year who has made an outstanding contribution to the Academic, Social or Cultural life of Scarborough College. Application required.

Bladen Prize in Economics
Awarded on the basis of an essay submitted by a student specializing in Management or Economics on any subject covered by a B, C or D level course in Economics.

Tom McFeat Prize in Anthropology
Awarded to the outstanding student entering the final year of the Major or the Specialist Programme in Anthropology.

John Pounder Prize in Astronomy
Awarded to a full-time student entering the third year of a physical sciences programme on the basis of excellent achievement in ASTA03Y and one B or C level course in Astronomy.

John S. Moir Prize in Canadian History
Awarded to the student with the highest standing in HISB04Y Introduction to Canadian History.

William Beardmore Memorial Prize in History
Awarded to the student completing third year, who in the opinion of the members of the teaching staff in History, has excelled in the study of History.
Awarded in the memory of the late William Beardmore, a History graduate of Scarborough College.

The Morris Krever History Prize
Awarded to a student entering the third year of the Major or Specialist Programme in History on the basis of academic performance (at least B+ standing) and financial need. Emphasis is placed on academic performance. Application required.

Diefenbaker Essay Prize
Awarded on the basis of an essay, 2,500 to 5,000 words in length, on any topic within the general field of Canadian Studies. The essay should have Canada as its primary, principal or exclusive focus. Essays are normally those submitted for course work and nominated by instructors. However, students may also submit a copy of their essays to either the Chair of the Division of Humanities or the Chair of the Division of Social Sciences by April 30. Include a cover page showing full name, student number and the name of the course for which and professor to whom the essay was originally submitted.

McClelland and Stewart Essay Prize in Canadian Studies
Awarded on the basis of an essay, 2,500 to 5,000 words in length, on a topic focusing on Canadian art, drama, music or literature. Essays are normally those submitted for course work and nominated by instructors. However, students may also submit a copy of their essays directly to the Chair of the Division of Humanities by April 30. Include a cover page showing full name, student number and the name of the course for which and professor to whom the essay was originally submitted.

The Oxford University Press English Essay Prize
Awarded for the best essay written for an English course, in the past academic year. Essays are nominated by instructors.

The Margaret H. McCoy Johnston Scholarship
Awarded to the student enrolled in a major or specialist programme(s) in a modern language who, on entering the third or fourth year, has the highest grade point average in courses taken to satisfy the programme(s). (minimum gpa 3.2).

Anita FitzGerald Prize in Women's Studies
Awarded for the best essay in the area of Women's Studies. Essays are nominated by instructors.

Dr. Vivian Paskal Memorial Prize in Psychology
Awarded to a full-time student entering the fourth year of the Specialist Programme in Psychology, on the basis of excellent academic achievement.

The Katherine Nagel 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 grades and performance in Philosophy, in the opinion of the Faculty in Philosophy, have best demonstrated excellence in the subject.

Margeson Scholarship in English
Awarded to an outstanding student who has completed the second year of the Major or Specialist Programme in English.

Leigha Lee Browne Scholarship in Drama
Awarded to a student displaying outstanding ability in the dramatic arts who is either continuing in a Drama Programme at Scarborough College or is graduating and has registered in an advanced training programme in the dramatic arts. Application required.

The Gilchrist Award in Cell and Molecular Biology
Awarded to the student entering the fourth year of study in the Specialist Programme in Cell and Molecular Biology who has completed at least ten of the required full course equivalents of the Programme requirements and who has the highest grade point average in the Programme (minimum B+/3.30 GPA).

The Gilchrist Award in Computer Science
Awarded to an excellent student entering the third year of a Major Programme or fourth year of a Specialist Programme in Computer Science.

The Gilchrist Scholarship in Terrain and Environmental Earth Sciences
Awarded to the student in the Specialist Programme in the Terrain and Environmental Earth Sciences who has the highest aggregate standing at the end of the third year of study in the required courses of the programme.

The Gilchrist Scholarship in Physical Sciences
Awarded to the outstanding student who (i) has achieved at least an average of A- on five full credits, of which three must be physical sciences courses, in the first year of full-time study and (ii) is registered as a full-time student in a physical sciences Specialist Programme in second year.

Arthur Louden 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)

Hewlett-Packard Calculator Award
Awarded to students entering a Specialist Programme in Computer Science who have demonstrated excellence in sciences and computer sciences.

The Scarborough College Physics Prize
Awarded to the student in a Physics Specialist or Major Programme, including joint Programmes, who has the highest combined grade point average in PHYB01, PHYB03, PHYB04, PHYB17 and PHYB19, provided that the average is at least 3.3 (B+).

The William D. Peek 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 BIOA03Y Introductory Biology (minimum 3.3 gpa / B plus). Emphasis will be placed on the laboratory component of the course and overall contribution to the class.

Scarborough College 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 Radford Memorial Scholarship in Management
Awarded to one or more students entering the third or fourth year of a Management programme whose academic and athletic achievement, combined, best exhibit dedication to excellence. (Minimum grade point average of 3.3/B+). Application required.

Management Accounting Student of Merit Scholarship
Awarded to the student who has completed the third year of study in the Specialist Programme in Mangement or Management and Economics, and who has completed the following courses with the highest average

grade: MGTB01Y, MGTC02Y, MGTC72H/73H.

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.

Ernst & Young of Scarborough Award in Management
Awarded to an outstanding student entering third or fourth year in a Management Programme, who has achieved a cumulative grade point average of at least 3.3.

The Harvey Babiak Award in Financial Accounting
Awarded to a student completing the third year of the Specialist Programme in Management or Management and Economics with the highest grade (at least A minus) in MGTC01Y.
Donated by Peat Marwick Thorne.

Jean Black Memorial Scholarship in Management
Awarded to a student enrolled in a Managment programme on the basis of excellent academic achievement. Preference will be given to a student entering fourth year who as completed the Fiance courses, MGTC03H and MGTC09H, with high standing.
Doanted by Canadian Union of Public Employees Local 3261

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 Scholarship
Awarded to the student enrolled in the Co-operative Programme in International Development Studies who has demonstrated outstanding academic achievement.

Washington United Church U.C.W. International Development Scholarship
Awarded to a student entering the third year of the Co-operative Programme in International Development Studies on the basis of 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 Prize
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 Tsang Memorial Scholarship in Sino-Canadian Studies
Awarded to the undergraduate, whose academic performance and extra-curricular activities in the area of Chinese studies and Sino-Canadian studies best exhibits commitment to Chinese-Canadian cultural and economic ties.

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, Scarborough College) on the basis of academic performance and financial need. Application required.

APUS Scholastic Awards
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 apply. Application required.

APUS Award for the University of Toronto's Sesquicentennial
Part-time undergraduate students who (a) have completed at least five 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 in activities distinct from their University studies or have overcome adverse circumstances in order to attend University, may apply. 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 these areas of scholarship.

Ali Tayyeb Prize
Awarded to the outstanding member of the graduating class in Geography.

The Irwin Publishing Prize in Classical Studies
Awarded to the outstanding member of the graduating class who has completed the Major Programme in Classical Studies.

Forrin Prize in Psychology
Awarded to the outstanding member of the graduating class who has completed the Specialist Programme in Psychology.

CGA Ontario Award for Excellence
Awarded to an outstanding graduating student completing a Management programme who has displayed excellent achievement in accounting, with grades not less than A minus in each of MGTB01Y and MGTC01Y.

The Graduation Prize in Sociology
Awarded to the student who has achieved the highest scholastic average (grade point average) in either the Sociology Specialist or Major Programme. The grade point average is based on all sociology courses attempted.

CIBA-GEIGY Award in Neuroscience
Awarded to a student graduating with a four-year degree who has completed either the Neuroscience Specialist or Major Programme, who in the judgement of the Faculty, has demonstrated the most outstanding academic and laboratory performance.

The Gilchrist Graduation Prize in Computer Science
Awarded to an outstanding member of the graduating class who completed a Major or Specialist Programme in Computer Science.

The Gilchrist Graduation Prize in Cell and Molecular Biology
Awarded to the student who has the highest grade point average in the Specialist Programme in Cell and Molecular Biology (minimum B+/3.30 GPA).

The Society of Chemical Industry Student of Merit Award
Awarded to a member of the graduating class who has completed a Specialist programme in chemistry and achieved the highest standing in the final year.
(Minimum GPA of 3.0/75%; has completed the degree within the normal number of years)

Orpheus Prize in Humanities
Awarded to an outstanding member of the graduating class who has completed either the College Programme in the Humanities, the Major Programme in Music History and Literature, or the Specialist Programme in the Arts.

Graduation Prize in Political Science
Awarded to an outstanding member of the graduating class who has completed a programme in political science.

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 January.

Scarborough College Honours List
Scarborough College publishes annually an honours list, including the names of all degree students who have achieved a grade point average of 3.70 or better in their most recent year of full-time study or equivalent amount of part-time study. Students are considered for the honours list at the end of the session in which they complete their 5th, 10th, 15th and 20th

credit. Other students may be nominated by the academic Divisions of the College.

Graduation With High Distinction and With Distinction
Scarborough College students who have completed at least ten full courses while registered at Scarborough College or at the University of Toronto's Faculty of Arts and Science will graduate with high distinction if their cumulative grade point average is 3.50 or better and will graduate with distinction if their cumulative grade point average is between 3.20 and 3.49. Other students with a cumulative grade point average of 3.20 or better will be considered on an individual basis.

Bursaries

University of Toronto Undergraduate Bursaries
Applicants for bursaries must demonstrate financial need. Applications may be obtained from the Counselling Services Office. Deadline: November 1; however, applications will be accepted after this date should emergencies arise and funds are still available.

Gavin Livesey Memorial Bursary
Awarded to a student enrolled in the Co-operative Programme in International Development Studies returning from work placement to complete the fifth and final year; Given on the basis of financial need. Where two or more students qualify on this basis, the students' contribution to the programme and college will also be considered. Application required. Deadline: September 30.

Edward A. Pickering Placement Bursaries in Arts Administration
Awarded to students enrolled in the Co-operative Programme in Arts Administration undertaking Placement, on the basis of financial conditions during Placement. (Applications are required.) Donated by the Corporation of Massey Hall and Roy Thompson Hall.

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 Programmes
Canadian citizens or permanent residents who have established themselves as Ontario residents, and who demonstrate financial need, may be eligible for interest-free loans or grants. Applications are available from the Counselling Services Office. The Admissions and Awards inquiry number is (416) 978-7950.

Academic Regulations

Student responsibility
Students are responsible for making themselves familiar with the information in this Calendar, particularly with this section, as well as instructions published by the Registrar periodically. Students whose registration contravenes the regulations will be withdrawn from courses. Members of the Registrar's Office and Counselling Services Office will assist students in interpreting the regulations and explaining their application in particular cases. Where appropriate, they will assist those who encounter special difficulties in requesting special consideration.

Calendar changes
The information published in this calendar outlines the rules, regulations, curricula and Programmes for the 1993 Summer Session (May to August) and the 1993-94 Winter Session (September to May). The College reserves the right to change without notice any information contained in this Calendar, including any rule or regulation. The publication of information in this Calendar does not bind the University to the provision of courses, Programmes or facilities as listed herein.

Enrolment limits
Scarborough College 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 fees payment for the session has been received, the card must be presented to the Office of the Registrar for validation. The validation stickers remain in effect from September to August. Therefore it is not necessary for a 1993 Summer Session student who was registered in the 1992/93 Winter Session to present the card for validation again until the 1993/94 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
Scarborough College 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 reenrolling 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 on non-academic matters

Services to Persons with a Disability
A Coordinator is available to provide personal support and liaison with academic and administrative departments on campus and with agencies off-campus, and to organize volunteers to assist in various ways.
Devices to aid print-handicapped students on all three campuses and personal amplification systems to aid hard-of-hearing students may be borrowed from the Coordinator. Students can make appointments through Counselling Services, Room S302, 287-7560 or by contacting the St. George campus office in the Koffler Student Services Centre, 978-8060.

Course key

The Course 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. ANTA01Y "ANT" indicates a course in Anthropology, CHMB44Y "CHM" indicates a course in Chemistry; PHLD87H "PHL" indicates a course in Philosophy. (In the Student Telephone Service a separate three-digit numeric code indicates discipline.)
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=1, B=2, C=3 and D=4.)
3 *The Course Number*
The fifth and sixth letters of the course code are course numbers. In most disciplines, these numbers have no significance, except to identify the course in a shorthand form.
4 *Credit Value and Duration of a Course*
The final letter of the course code indicates the credit value and duration of a course as follows:

Final Letter	Credit Value	Winter Session	Summer Session
Y	Full Course	Sep.-May	May-August
F	Half Course	Sep.-Dec.	May-June
S	Half Course	Jan.-May	July-August
H	Half Course	Sep.-May	May-August
A	Full Course	Sep.-Dec.	May-June
B	Full Course	Jan.-May	July-August

Hence, ANTA01Y is an elementary course in Anthropology taught throughout the session and worth a full course credit. PHLD87S is an advanced course in Philosophy taught in the second term and worth one-half a course credit. (In the Student Telephone Service Y=6, F=3, S=5, H=4, A=1 and B=2. The last digit of the telephone course identifier indicates campus with Scarborough=3)
In systems using semester hours as the credit unit, "Y", "A" and "B" courses would be considered equivalent to six semester hours of credit and "F", "S" and "H" courses would be the equivalent of three semester hours of credit.

Exclusions, Prerequisites and Corequisites
1 *Exclusions*
A student may not register for credit in a course which lists, as an exclusion, one which the student is also taking or has already passed.
2 *Prerequisites*
A student must have passed the prerequisite course before enrolling in the course being described. Instructors are permitted to waive prerequisites if they feel that there are adequate grounds for so doing. If a student registers in a course without meeting its prerequisite and without obtaining a specific waiver, the student may be withdrawn from the course at any time during the term. Students who are not withdrawn from the course remain in it at their own risk, for lack of the prerequisite is not grounds for special consideration. Students who complete courses for which they have obtained a waiver of specific prerequisites may not subsequently obtain credit for the less-advanced prerequisite courses.
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 corequired course without obtaining specific waiver of the corequisite, they may be withdrawn from the course at any time during the term. 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*
Some exclusions and some prerequisite and corequisite courses are enclosed in parentheses. This indicates that the course is no longer in the College's curriculum. Students who have already passed an excluded course contained in parentheses may not take the course being described. Students who have completed, in a previous session, a prerequisite or corequisite course contained in parentheses may make use of the course to meet the requirements of the course being described.

Supervised Reading, Supervised Research and Independent Study Courses
Students in these courses work under the direction of a faculty member with whom they meet periodically or in whose laboratory they work. Students must obtain written permission of instructors before enrolling in them. (Forms are available from the Registrar's Office.)

Course[1] selection

In selecting their courses, students must adhere to the following regulations.
1 Prerequisites and corequisites for each course, as stated in the course descriptions, must be met, unless waived by the instructor.
2 Students may not register for credit for a course if they have already passed[2] another course shown in the course description as an exclusion to that course.
3 Students may not re-register for credit in a course if they have already passed that course. Students may re-register in a course 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[3] for a course they have already passed.
5 Where students may not register in courses for credit, they may register in them as extra courses. In such cases, both registrations in the course are shown on the student's record but the second grade is not included in the student's grade point average nor does it count towards the degree.
6 Students may normally select as many courses as they wish each session. Students should, however, note the following.
   - The usual load for a full-time student in the Winter Session is five courses.
   - The usual maximum load for a student in the Summer Session is two courses.
   - Students who are on probation are strongly advised to carry no more than an average course load. Should they choose not to follow this advice they do so at their own risk.
   - In the Winter Session students are assigned to no more than 6.0 courses before classes start. Students wishing to enrol in more than 6.0 must wait until September to add them.
7 Students who wish to register in courses on the St. George or Erindale campus should consult pages 228 and 229 of this *Calendar*.
8 Full-time students are those students who register in at least four courses in the Winter Session. Students who are restricted on admission to part-time studies until they have met certain conditions may register in no more than two and one-half courses in any session until those conditions are met.
9 Students must register for their courses in accordance with instructions issued each session by the Registrar. 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 of any change through the Student Telephone Service or by means of a registration change form, submitted by the appropriate deadline.
10 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.

Registration

Registration consists of two basic steps:
1. Course selection, and
2. Fees payment.

Both must be completed by the appropriate deadlines in order to be considered a "registered" student and to retain a place in any course selected. (For deadlines and further information, see the registration material published separately for each session.)

Course selection
Courses may be selected either through the Student Telephone Service or by submitting a registration form directly to the Registrar's Office. (For regulations on course selection, see page 221.)

Fees payment
The University Fees Department publishes a schedule of fees for each session. The schedule for the 1993 Summer Session will be included in the registration package. The schedule for the 1993-94 Winter Session will be available in June. 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
Programme registration takes place in the Winter Session only. All degree students with at least 4.0 credits are required to register in their Specialist, Major, College or Minor Programmes. Students may only register in Programmes offered by Scarborough College. (For regulations governing Programmes, see page 224 of this *Calendar*.)

Summer Session
1993 Summer Session registration begins on April 5. Students who registered at the College in the 1992 Summer Session or the 1992-93 Winter Session and who are not on suspension are eligible to register. Beginning on March 29, students may pick up their registration material from the Registrar's Office. New students, students who reenrol (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 withdrew) will be mailed their registration material upon request. Most courses in the Summer Session are assigned on a first come-first served basis.

Winter Session
1993-94 Winter Session registration begins on March 15. Students who registered at the College in the 1992-93 Winter Session and who are not on suspension are eligible to register. Students may pick up their registration material from the Registrar's Office. Registration material will be mailed upon request to new students, students who reenrol (i.e. reactivate their enrolment after an absence of one year or more) and other students who are not on campus.

Course scheduling
Before classes start in September, all requests for course enrolment received prior to the appropriate deadline are considered at the same time in:
- early June
- mid-August
- early September

Priorities for course scheduling
With the exception of courses with restricted admission, priority is given as follows:

Year of Study	Passed credits	Priority given in:
4th	>14.0	all courses
3rd	9.0 to 14.0	C & D level
2nd	4.0 to 8.5	B level
1st	<4.0	A level

After classes have started in September places in courses which do not have restricted admission are assigned on a first come-first served basis.

Timetables
Following the June and August course scheduling, personal timetables will be mailed to all students who have requested enrolment in a course. Following the September scheduling, timetables will be available in the Meeting Place on the first two days of classes and thereafter from the from the Registrar's Office. Personal timetables are not produced to reflect changes made after classes start in September.

University of Toronto Student Telephone Service (872-8638)

Scarborough College students with access to a touchtone telephone may use the Student Telephone Service to:
- add courses
- drop courses
- change sections
- list courses on their record
- request graduation
- receive St. George campus ballot results
- avoid lineups

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.
By using the Student Telephone Service, students are modifying their own computer records.
Access is through student number and a four digit personal identification number (PIN). PIN usually consists of month and day of birth (e.g. 0323 = March 23). For this reason it is important not to give both student number and date of birth to anyone else. Students who are concerned about security may change their PIN through the Registrar's Office to one of their own choice. PINs will not be changed without photo identification. For security there is a limit on the number of attempts which can be made to enter PIN. Students who exceed the limit will have their access to the Student Telephone Service suspended and should contact the Registrar's Office immediately. Access will not be restored without photo identification.

Using the Student Telephone Service
Students are guided through each step of the telephone call and are asked at certain 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 dealing with courses, it is a good idea always to end the call by using the list option as additional confirmation that call has progressed as it should and that the record is correct.

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)978-8060.

Student Telephone Service fee
Incidental fees each session include a Student 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.

Course changes

Students may add courses or withdraw from courses without academic penalty up to the dates stated in the Academic Calendar on page 6, either through the Student Telephone Service or by submitting a registration change form to the Registrar's Office.
Students who make changes through the Registrar's Office will be given or mailed a receipted copy of their registration change 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.
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 admission 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.

Withdrawal from 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:*

that one of two majors or both minors need to be Science until next cal year D. Vandermeer July 2005

- return any borrowed books to the Library, pay any outstanding library fines and receive clearance from the library;
- return any equipment borrowed from the College Recreation Centre and surrender any recreation centre locker;
- surrender any College locker and return (perhaps for a partial refund) any College parking permit; and
- surrender any laboratory locker and equipment.

Students who wish to withdraw from the College are advised to speak with a counsellor in the Counselling Services Office. The counsellor will advise students concerning the academic consequences of their withdrawal (deadline dates, eligibility for re-admission, etc.), any fees adjustments and repayment of Ontario Student Assistance.

Degree requirements

Students who first registered at the College before the 1989 Summer Session may, if they wish, complete the degree requirements outlined in the 1988/89 Scarborough College *Calendar*. Students who first registered at the College before the 1980 Summer Session may, if they wish, complete the degree requirements outlined in the 1979/80 Scarborough College *Calendar*.

Three-year degree
To qualify for a three-year degree, students must:
1 pass at least fifteen courses
2 complete the requirements of a Major Programme or a College Programme or two Minor Programmes.
3 earn a cumulative grade point average of at least 1.60.

Four-year degree
To qualify for a four-year degree, students must:
1 pass at least twenty courses
2 complete (a) a Specialist Programme, or (b) two Major Programmes, or (c) a Major Programme and a College Programme, or (d) three Minor Programmes, or (e) two Minor Programmes and either a Major Programme or a College Programme.
3 earn a cumulative grade point average of at least 1.60.

B.A. ,B.Sc. and B.Com. degrees
The type of degree students receive is determined, for students completing the requirements outlined above, by the Programme completed. (See the list of Programmes on page 15 for the type of degree towards which the Programme leads.) *Unless otherwise approved by the* Programme supervisor, students completing the Specialist Programme in Management and Economics or Management and Economic Theory must complete the Programme as described in the 1992-93 *Calendar* or in a subsequent *Calendar* to receive a Bachelor of Commerce degree. (Prior to 1992-93 these Programmes led to a Bachelor of Arts degree.) For students completing the requirements outlined in the 1988/89 or the 1979/80 *Calendar*, the type of degree is determined by the number of Science credits completed.

Transfer Students
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 Scarborough College students. Students transferring from other divisions of the University of Toronto are exempt from this requirement.

NOTES:
1 A course. The word course is used in two ways: a) to describe a full or half course such as "the last day to withdraw from a course", or b) to describe a number of full courses, or the equivalent in full and half courses such as the requirement of passing fifteen courses for a three-year degree.
2 To Pass a Course. To pass a course means to obtain a grade of D- or better in that course (or "Credit" in a Credit/No Credit course).
3 A Specific Prerequisite. This rule does not apply in the case of non-specific prerequisites (such as "one B-level course in English") or in the case where one of two or more completely different courses may serve as prerequisite.

Programme requirements

Specialist Programmes
1 Specialist Programmes are designed to provide *depth and intensity of study within a limited area* defined as a discipline, a group of disciplines, or a particular theme or area of study. A Specialist Programme may be taken only as part of a four-year degree and will consist of at least nine courses. There are four Specialist (Co-operative) Programmes (see page 50).

(A list of Specialist Programmes may be found on page 15.)

Major Programmes
2 *Major Programmes are designed to* provide *concentration* in an area of study defined as a discipline, a group of disciplines or a particular theme or area of study. A Major Programme may be taken as part of either a three-year or a four-year degree and will consist of six to eight courses. (A list of Major Programmes may be found on page 16.)

College Programmes
3 College Programmes are designed to provide an *organizing framework* for students desiring wide- ranging but coherent programmes of study in a major area of the curriculum. A College Programme may be taken as part of either a three- or a four- year degree.
(A list of College Programmes may be found on page 16.)

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

Approved Individual Programmes
5 Students may propose individual Programmes of study, other than those described in this Calendar.
Such proposals will be considered favourably only from students with cumulative grade point averages of 3.5 or greater. To be approved, individual Programmes should specify four courses for a Minor Programme, six to eight courses for a Major or College Programme and ten to fourteen courses for a Specialist Programme. The courses should all be offered on the Scarborough Campus and should form a logical programme. The student should offer a rationale for the proposal. Proposals should be made to the Vice-Principal and Associate Dean. Proposals must be submitted at least eight months prior to the session in which the students expect to graduate.

Course selection and registration for Programmes of study
1 Students are responsible for ensuring that their course selection will enable them to complete the requirements of their Programme(s) by the time they complete their other degree requirements. In certain Programmes, approval by the supervisor of *some or all courses is necessary. In all* Programmes, the supervisor is available for advice concerning Programme requirements and course selection.
2 While students in their first year of full-time study, or first four courses of part-time study, are not required to select a Programme, they should, when selecting their first year courses, consider carefully the requirements of any Programmes they may later choose to follow. Supervisors, instructors in A-level courses, and counsellors in Counselling Services may be consulted for assistance. Students who have registered in a Programme should consult annually with the supervisors of their Programmes to ensure that their course selection will meet Programme requirements.
3 Students must register in their Programmes at the time they submit their course registration for the Winter Session following the session in which they attain their fourth credit.

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

Certification of completion of Programmes
Students request certification of completion of their Programmes early in their final session of study at the College, at the same time as they request graduation.
When Programme requirements are changed, students may elect to satisfy the requirements in effect 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 not register in two limited enrolment Specialist Programmes.
2 No overlapping courses are permitted between a Minor Programme and any other Programme.

3 Where a student is registered in two Major and/or College Programmes with overlapping course requirements, a student may use no more than two courses to fulfil 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.
4 Where a student completes the requirements of a Minor Programme and subsequently chooses to complete a Major, College or Specialist Programme the student may use the courses already accredited to the Minor Programme to fulfill the requirements of the Major, College 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, College or Specialist Programme.
5 Where a student completes the requirements of a Major or College Programme, and subsequently chooses to complete a Specialist Programme, the student may use the courses already accredited to the Major or College Programme to fulfil the requirements of the Specialist Programme. Upon successful completion of the additional requirements, any previous certification of the Major or College Programme will be superseded on the student's transcript by certification of the Specialist Programme.
6 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 (or a Major and a College Programme) that require more than two overlapping courses (see 3 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 where they deem them appropriate. When special arrangements are made, students should ask their supervisor to record them on a programme exceptions form.
7 Students should note that certain Programmes will require students to take some of their courses on the St. George Campus.
8 Students intending to enrol in any course on the St. George Campus which they intend counting towards their programme should consult with their Programme Supervisor first.
9 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 Scarborough College students. Students transferring from other divisions of the University of Toronto are exempt from this requirement.

Standing in a course

Grading scheme
Students are assigned a grade in each course, as follows:

Grade	Grade Point Value	Percentage Equivalent	Definition
A+	4.3	90-100	
A	4.0	85-89	Excellent
A-	3.7	80-84	
B+	3.3	77-79	
B	3.0	73-76	Good
B-	2.7	70-72	
C+	2.3	67-69	
C	2.0	63-66	Adequate
C-	1.7	60-62	
D+	1.3	57-59	
D	1.0	53-56	Marginal
D-	0.7	50-52	
CR		No value	Credit in a Credit-/No-credit course
E	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 'E', 'F', and 'NCR' are failing grades, yielding no standing in a course and no degree credit. Students are cautioned that a numerical score on an assignment is not deemed to be automatically equivalent to the corresponding letter grade.

Credit/No credit courses
In some courses such as music performance courses, or certain drama courses, specific letter grades may not be assigned. Students may instead be graded on a Credit/No credit (CR/NCR) system.
The grade of "No credit" is a failing grade. Where students earn a grade of "Credit" in a course, the course is not included in the grade point average; where students earn a grade of "No Credit", the course is included as an F (value zero) in the grade point average.

Aegrotat standing
The Sub-committee on Standing may, on petition, assign a grade of "Aegrotat" (AEG). This grade is assigned on the basis of term work 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 term mark of C minus or better. Where a student is assigned Aegrotat standing, the course is not included in any grade point average.

Extra courses
Extra courses are those courses in which students may not register for credit (see "Course Selection" on page 221). The course and its grade will appear on the student's transcript (designated as an extra course) but the grade will not be included in any grade point average.

Overall standing

Grade point averages
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.
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 a given session (winter or summer) having a grade point value.
3 A *cumulative grade point average* is calculated on the basis of all courses taken having a grade point value.

Determination of academic status
Academic status will be determined as follows for students who have attempted at least two and one-half full courses (or equivalent) since beginning their studies at Scarborough College or at the University of Toronto's Faculty of Arts and Science. It is determined at the end of each Summer and each Winter Session:

1 In good standing
Students who maintain a cumulative grade point average of 1.60 or better shall be said to be "in good standing".
2 *On probation*
- Students shall be placed on probation who have attempted at least two and one-half courses in the College and have a cumulative GPA of less than 1.60.
- Students returning from suspension (under 5) below or under any provision in previous College rules) shall be placed on probation again.
3 Probation cleared
Students may clear probation by achieving a cumulative GPA of 1.60 or better. Students who have cleared probation shall be said to be again "in good standing".
4 Probation continued
Students may continue on probation by achieving a sessional grade point average of at least 1.60 in each session (summer or winter) until such time as they return to good standing.
5 Suspended or refused further registration
Students who, by the end of a given session, whether Summer (May to August) or Winter (September to May), have not either cleared probation or achieved a sessional grade point average of at least 1.60 shall be liable for suspension or refusal of further registration as follows, regardless of the number of courses taken in the session:
- Students who have incurred no previous suspension will be *suspended for one year.*
- Students who have previously incurred (at worst) a one year suspension will be *suspended for three years.*
- Students who have previously incurred a three year suspension will be *refused further registration in the College.*

Determination of academic status for students admitted on condition
In certain circumstances, students who do not meet normal admission requirements may be admitted "on condition". The academic status of such students is determined according to the following rules:
1 The status of students admitted on condition will be assessed at the end of the session in which such students complete their second full-course equivalent.
2 Where such students earn a cumulative grade point average of 1.70 or better, their conditional status will be removed, and they will be said to be "in good standing".

3 Where such students earn a cumulative grade point average of less than 1.70, they will be suspended for one year.
4 Upon their return from suspension, their academic status will be assessed as it is assessed for any other student returning from suspension.

Determination of academic status for re-enrolling students at Scarborough College
Students who have studied at other institutions or other divisions of the University of Toronto since their last registration at Scarborough College must arrange for official transcripts of other post-secondary studies to be sent to Scarborough College upon application for re-enrolment. Achievement in courses is taken into consideration in determining if the application will be approved and in assessing whether any change in academic status will be imposed. In particular, students who are not in good standing who study at other institutions with poor achievement are unlikely to be eligible to re-enrol. Students who study at other universities without prior permission from Scarborough College are unlikely to be eligible for transfer credit for such study. See also the section "Study at other universities".

Study at other institutions or other divisions of the University of Toronto
Courses taken for credit by degree students while registered at the University of Toronto's Faculty of Arts and Science or at Woodsworth College are included in Scarborough College grade point averages as are all University of Toronto courses taken for credit while registered at Scarborough College. Courses taken while registered at other institutions or other divisions of the University of Toronto are not included in grade point averages.

Courses on other campuses

Students are permitted to take some courses on other campuses of the University of Toronto subject to the following rules. Students may be withdrawn from courses after classes have started if their registration violates these rules.

Overall limits
Of the total number of courses completed by Scarborough College students, at least one half must at all times be Scarborough College courses. (The total number of courses refers to the sum of the courses in which students are registered plus those which they have already passed.)

Other than Arts and Science credits
Students are not permitted to register for courses in Faculties other than Arts and Science unless they have received the permission of the Sub-Committee on Standing or unless the courses are required by their Specialist, Major or College Programme.

Transfer to the Faculty of Arts and Science
Students who are contemplating transfers to other Colleges in the University should be aware that Scarborough College is in fact a separate faculty and that the rules covering students at Scarborough College differ from those in the Faculty of Arts and Science. Students are urged to consult the Office of Admissions and Awards at 315 Bloor Street West to establish how they will be affected by transferring from one faculty of Arts and Science to another.

Study at other universities

Students who wish to take courses at another university and have credits transferred to the University of Toronto must receive permission from the University of Toronto to do so prior to taking the courses. Students who study at other institutions without the University of Toronto's approval in advance do so at their own risk in that the credits usually are not transferred after the fact. However, students should also be aware that duplication of previous study is not permitted. Students who study at another institution after leaving Scarborough College are required to supply official transcripts upon re-enrolment. Grades attained at other universities may affect a student's academic status.

There are two types of programmes where credit transfer is considered. The Study Elsewhere programme allows a student to study full-time at an accredited university in a different cultural setting to enhance the student's educational experience. A Letter of Permission allows a student to study at a university similar in setting to the University of Toronto. The regulations governing the programmes are different.

(i) Letters of Permission
To take a course at another university, students must, in advance, apply for and receive a "Letter of Permission" from Scarborough College. Requests should be addressed to the Assistant Registrar - Admissions, Room S415. Requests should include the name of the university, the course number, title and description. Courses requested must be appropriate for Arts and Science degree credit at this university. In addition the student must give reasons why the Letter of Permission is necessary.

To be considered, a student must have completed the equivalent of one year of full-time study and be in good standing. A maximum of 5.0 credits may be obtained on a Letter of Permission. If a student has received more than 5.0 transfer credits upon admission, it is unlikely that a Letter of Permission will be allowed. Letters of Permission are not normally granted for study at institutions within Metropolitan Toronto and surrounding regions. Only 1.0 credit at the C or D level will be permitted to be taken on a Letter of Permission. A student who completes the final course(s) for the degree during the Winter Session may not apply to graduate at the June convocation but may apply for graduation at the November convocation.

A fee will be charged for each Letter of Permission.

Special Note: French Summer Immersion Programmes.
The Department of the Secretary of State in co-operation with the Ministry of College and Universities (in Ontario) sponsors the Summer Language Bursary Programme. Students interested in this six week immersion programme (in Quebec or elsewhere in Canada) should complete the bursary forms promptly upon distribution by the Ministry. (Check with Counselling Services in January for expected date of arrival.) Speak to the Assistant Registrar - Admissions and the Study-Elsewhere Supervisor in French for advice about choosing three universities offering courses which most closely correspond to the curriculum at the University of Toronto. Submit the form to the Registrar's Office 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.

(ii) Study Elsewhere year
To apply for a Study Elsewhere programme, students may obtain an application from the Assistant Registrar-Admissions or the Vice-Principal and Associate Dean. The application requires details about the proposed course of study and asks students to show how the intended studies will enhance their studies at Scarborough College. Students who intend to count the courses towards programme requirements must obtain the approval of the Programme Supervisor before submitting the application. Students normally apply for a Study Elsewhere year during the third year of a four year programme. However students may apply after completing four full-course equivalents at Scarborough College. To be eligible a student must have a cumulative grade point average of 2.5 or better. Students must return to Scarborough College to complete the final year of study. A maximum of 5.0 full-course equivalents will be considered for transfer. Completed applications should be submitted to the Vice-Principal and Associate Dean by April 1. The proposed programme will be reviewed by the Study Elsewhere Committee.

Since there is often limited information about foreign universities, students should begin the process early in October. Most often students register at the host university and follow its courses for credit. It is possible that students may arrange to take University of Toronto independent study or supervised reading courses under supervision from University of Toronto faculty. The University of Toronto offers Study Elsewhere opportunities at Aix-en-Provence, Granada, Laval and Siena but students may submit proposals for any accredited university that qualifies for a Study Elsewhere experience.

(iii) Grades and Accountability
Students registering in courses offered by the University of Toronto receive grades in the normal manner.
To receive credit for other courses, the student must earn one full grade higher than the minimum passing grade (i.e. a C minus or better at universities using a grading scale similar to that of the University of Toronto). Grades are not recorded on transcripts and are not included in any grade point averages. The student must arrange for the host university to send an official transcript to Scarborough College promptly after completion of the course. Students who do not register or 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 Scarborough College.

Fees and aid
Students pay the appropriate fees to the host university and a Study Elsewhere fee will be charged by the University of Toronto. Students who would be eligible for financial assistance through the Ontario Student Assistance Programme for study at Scarborough College may be eligible for similar assistance in their Study elsewhere year. (Consult the Student Awards section of the Office of Admissions and Awards.)

Degrees

Scarborough College students may earn a Bachelor of Arts, a Bachelor of Science or a Bachelor of Commerce degree. Students may elect to receive B.A or a B.Sc. degree after having completed the requirements for a three-year degree or a four-year degree. The B.Com. may only be completed as part of a four year degree.
Students who wish to graduate must notify the Office of the Registrar either through the Student Telephone Service or on a degree request form by 15 February for graduation at Spring Convocation or by 31 August for graduation at Fall Convocation. Students are advised, however, to make their requests in the first term of their final session in order that possible problems may be solved well in advance of Convocation.
Students who have elected to graduate after having completed a three-year degree may still choose to complete the requirements of the four-year degree; a second degree will not be conferred but completion of the four-year degree requirements will be noted on the student's transcript. Students who have received a three-year degree, and wish to receive certification of completion of a four-year degree, should notify the Office of the Registrar by means of a degree request form.
Students who have requested their degree will be mailed complete information about the time and arrangements for the Convocation.
Degrees are conferred at university convocations, held twice annually: the Spring Convocation held in June and the Fall Convocation held late in November.

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 session.
- each course attempted, its abbreviated title, and its grade;
- the sessional grade point average;
- the cumulative grade point average at the end of the session;
- the 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 suspension deferred;
- completion of degree and Programme requirements, and date of conferral of the degree;
- any academic honours awarded: scholarships, prizes or medals awarded by the College or by the University, inclusion on the Scarborough College Honours List, and graduation with high distinction or with distinction.

Ordering copies
Students may obtain copies of their academic transcripts, subject to reasonable notice and upon payment of a fee.
Copies of transcripts may be requested in person or by letter only. As a student's signature is required to authorize release of the transcript (in order to protect confidentiality of records), telephone requests cannot be accepted.
To order copies of transcripts, students should visit the Office of the Registrar, or should write to: Office of the Registrar, Scarborough College, University of Toronto, 1265 Military Trail, Scarborough, Ontario, M1C 1A4. Payment by mail should take the form of a cheque or money order payable to "The University of Toronto".
There is no 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 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. *Preamble*
(a) Academic records of students are ultimately the property of the University, and it is the responsibility of the University to establish overall University policy in this area. This policy establishes university-wide aims, objectives, criteria and procedures which shall apply to the academic records of students of academic divisions of the University.
(b) The purpose of this policy is to combine consistency with flexibility in such a way as to ensure that:
(i) Students, alumni and former students are allowed as great a degree of access to their own academic records as is academically justifiable and administratively feasible.
(ii) A student's right to privacy in relation to his or her academic records is safeguarded as far as both internal university access and external public access are concerned.
(iii) There will be a basic university-wide consistency in the kinds of information collected, recorded, filed and made available.
(iv) In keeping with the pluralistic nature of the University academic divisions may retain some flexibility in the implementation and application of the policies established within this document.
(c) Individual divisional regulations and procedures on access to student academic records, including the statement in the divisional calendar concerning such, shall be reported by the Provost to the Committee on Academic Policy and Programs. Any subsequent revisions shall also be reported.
(d) This policy supersedes the 1979 access policy for undergraduate student records and the 1981 access policy for graduate student records.

2. *For the purposes of this policy:*
(a) "student" means any person registered at the University for full-time or part-time study in a program that leads to a degree or post-secondary diploma or certificate of the University or in a program designated as a program of post-secondary study at the University by the Governing Council or other University body having delegated authority. On the date of an enquiry or request relevant to this policy, persons who have been registered within a period of two calendar years shall be included in the provisions which relate to "students".
(b) "alumnus or alumna" means any person who has received a degree or post-secondary diploma or certificate from the University, or any person who has completed one year of full-time studies or the equivalent thereof as determined by the Governing Council, towards such a degree, diploma or certificate, and is no longer registered at the University.
(c) "former student" means any person who is not a student or an alumnus or alumna who has been registered at the University in a program as defined in Section 2 (a), and is no longer registered at the University.
(d) "academic division" means a college, school, institute, faculty or other division of the University that has academic autonomy (i.e. the right to administer its own degrees, diplomas, certificates and other programs of study), subject only to the authority of the Vice-President and Provost, the President and the Governing Council.

3. *Definition of the official student academic records*
The official student academic record refers to information relating to a student's admission to and academic performance at this University.
The "official student academic record" shall contain:
(a) (i) Personal information which is required in the

administration of official student academic records such as name, student number, citizenship, social insurance number
(ii) Registration and enrolment information
(iii) Results for each course and academic period.

(b) (i) Narrative evaluations of a student's academic performance subsequent to his or her admission, used to judge his or her progress through an academic program.
(ii) Basis for a student's admission such as the application for admission and supporting documents.
(iii) Results of petitions and appeals filed by a student.
(iv) Medical information relevant to a student's academic performance which has been furnished at the request or with the consent of the student concerned.
(v) Letters of reference which may or may not have been provided on the understanding that they shall be maintained in confidence.
(vi) Personal and biographical information such as address and telephone number.

The "official student academic record" shall be maintained by the University. For each type of information, academic divisions shall designate which document, form or medium contains the official version and how official copies of such information will be identified.

4. *Access to official student academic records*

(a) *Access by a student*
(i) A student may examine and have copies made of his or her official student academic record defined in Section 3 above, with the exception of those portions of the record which comprise letters of reference (Section 3(b)(v)) which have been provided or obtained on the expressed or implied understanding that they shall be maintained in confidence. A student may, however, be advised of the identity of the authors of any confidential letters contained in his or her official academic record.
(ii) A student's request to examine a part of his or her official student academic record shall be made in writing and shall be complied with by the responsible authorities within a division. Such compliance shall occur within 30 days of receipt of the request, or within such lesser period as a division may determine.
(iii) A student has the right to challenge the accuracy of his or her official student academic record with the exception of the material specifically excluded in Section 4(a)(i) and to have his or her official student academic record supplemented with comments so long as the sources of such comments are identified and the official student academic record remains securely within the custody of the academic division.
Reference to such comments does not appear on reports such as transcripts or statements of results.
(iv) It is assumed that all documents relating to petitions and appeals (Section 3(b)(iii)) and not provided on the understanding that they shall be maintained in confidence will be retained within a division, and when needed by a student, will be made freely available. In addition, The Statutory Powers Procedure Act, 1971 of Ontario requires that where the good character, propriety of conduct or competence of a party is in issue in any proceedings in a tribunal to which the Act applies (such as the Academic Appeals Board of the Governing Council), the party is entitled to be furnished prior to the hearing with "reasonable information" of any allegations with respect thereto.

(b) *Access by alumni and former students*
(i) An alumnus of 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 alumnus 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 alumnus 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 relevant portions of an official student academic record for purposes related to the performance of their duties. A staff member requesting information must have a legitimate need to have the requested information for the effective functioning of the position or office.
Access to medical information as defined in Section 3(b)(iv) 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.
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 sessional 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 sessional address and telephone number of students as long as there is a realistic provision for students to decline to consent to the disclosure of that information.
Names and addresses of students will also be provided to recognized campus organizations for the purpose of distributing information when all of the following conditions are met:
- The name and address information is not released to a third party.
- The name and address information is not used for commercial purposes.
- The organization proposes to distribute information which, in the opinion of the Assistant Vice-President (Planning) and University Registrar, the University would be willing to distribute if reimbursed by the organization.
- The information to be distributed is intended to provide information about the University and is not primarily advertisements for non-University organizations.
- The campus organization agrees to use the name and address information only for the specific purpose for which it was provided.

(e) *Access by others*
(i) By the act of registration, a student gives implicit consent for a minimal amount of information to be made freely available to all enquirers:
- the academic division(s), degree program(s) and the session(s) in which a student is or has been registered,
- degree(s) received and date(s) of convocation.
(ii) Any other information contained in the official student academic record (including any comments generated under Section 4(a)(iii) but with the exception of the material specifically excluded in Section 4(a)(i)), shall be released to other persons and agencies only with the student's prior expressed written consent, or on the presentation of a court order, or in accordance with the requirements of

professional licensing or certification bodies, or the Ministry of Colleges and Universities for an annual enrolment audit, or otherwise under compulsion of law. Requests granted to any persons or agencies outside the University for access to a student's academic record shall be kept on file within a division. The release of the information concerning alumni and former students contained in the portions of the academic record as defined in Section 3(a)(i) shall also be governed by the above provisions.
(iii) General statistical material drawn from academic records not disclosing the identities of students, alumni and former students may be released for research and informational purposes authorized by the University by the academic division maintaining these records.
(iv) In the event that a student, alumnus or alumna or a former student is deceased, the executors of his or her estate shall have access to the official student academic record under the same terms as would the individual if he or she were still living.

(f) *Refusal of access*
The University reserves the right to withhold access to the statements of results and transcripts of students, alumni and former students who have outstanding debts or obligations to the University in accordance with the Policy on Academic Sanctions for Students Who Have Outstanding University Obligations. The University may also choose not to release the official diploma to such persons nor to provide written or oral certifications of degree on their behalf.

5. *Custody and retention of official students academic records*
(a) Academic records of students are normally under the custodial responsibility of the academic division. Every academic division maintaining official student academic records shall draw up plans for the eventual disposition of their records in consultation with the University Archivist and in accordance with an approved records schedule which is in compliance with this policy.
(b) Those portions of the official student academic record as defined in Section 3(a) shall be maintained permanently. Each academic division's records schedule shall specify the document, form or medium in which these records will be maintained.
(c) Official student academic records preserved in the University Archives because of their archival value shall become open to researchers authorized by the University seventy-five years after a student has ceased to be registered.

6. *The University's responsibilities with reference to the official academic records of students, alumni and former students*
(a) Students shall be informed of University policy and divisional procedures with respect to their official student academic records.
(b) Academic divisions, administrative divisions which handle student academic records and campus organizations shall develop administrative procedures in support of this policy.
(c) Academic records shall be kept at all times under appropriate security.

Regulations governing special students

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

University grading practices policy

The following is the text of the University grading practices policy. Text enclosed in square brackets [ ] has been added to clarify or interpret the policy as it applies to Scarborough College.

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 in degree, diploma, and certificate credit courses (hereafter 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 indicated in Part II of this Policy shall be published in the Calendar of the division. Similarly a copy shall be given to all students upon initial registration and to all instructors and others, including teaching assistants, involved in the evaluation of student performance.

The Policy is in three parts: Part I deals with grades, Part II outlines grading procedures to be adhered to in divisional regulations adopted as part of this Policy, and Part III is an administrative appendix available upon request from the Office of the Provost.

PART I: Grades

Meaning of grades
Grades are a measure of the performance of a student in individual courses. Each student shall be judged on the basis of how well he or she has command of the course materials.

I.1 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.

I.2 Grades for each course shall be assigned with references to the following meanings (which may be expanded in the divisional regulations under Part II):
Excellent,
Good,
Adequate,
Marginal,
Inadequate,
Wholly inadequate.

Grade scales
I.3 Once a judgement 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 Honours/Pass/Fail and Credit/No Credit.
[For the scale used at Scarborough College, see page 00.]

Grades vs. scores
I.4 Grades should always be based on the approved grade scales. However, students may find that on any one evaluation they may receive a numerical or letter mark that reflects the score achieved on the test or essay. The cumulative scores may not be directly identified with the final grade. Grades are final only after

review by the divisional review committee described below.

I.5 A table of correspondence and a translation table are defined in the Appendix for each of the letter grade scales referred to in I.3(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

I.6 Only one *letter scale, as referred to in* I.3(a) may be used in a division for assigning grades, but the numerical scale and the H/P/FL and CR/NCR scales, as referred to in I.3(b) and (c) respectively, may also be used. The grades assigned in a course, however, must all be from the same scale.

I.7 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 divisions *use the same grade scale*, and when the grades are assigned from H/P/FL or CR/NCR 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 H/P/FL and CR/NCR scales, two different letter grade scales may not be used on the same 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.

I.8 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.

I.9 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 recommended by the instructor to the chair or division head. The grades shall then be reviewed and approved following the divisional review procedure. Grades shall not be reported or released to students as official until the divisional review procedure has been carried out. The divisional review constitutes final approval of grades except when grades are changed on appeal.

II.1 Divisional Review Committee

In each division, a committee chaired by the divisional head or a designate, and where appropriate, an additional committee structure, with the chairs (or their designates) departments or other academic units of divisions serving as chairs, shall:

(a) administer the implementation of the University Grading Practices Policy at the divisional level and oversee the general consistency of grading procedures with the division;

(b) 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 in the professional faculties may be adjusted according to his or her performance in the course or program as determined by the committee. *The divisional committee has the final responsibility for assigning the official course grade.*

II.2 Classroom procedures

To ensure that the method of evaluation in every course reflects appropriate academic standards and fairness to students, divisional regulations governing classroom procedures must be consistent with the practices below.

(a) As early as possible in each course (and no later than the division's last date for course enrolment) the instructor shall make available to the class, and shall file with the division or department, the methods by which student performance shall be evaluated. This should include whether the methods of evaluation shall be essays, tests, examinations, etc., the relative weight of these methods in relation to the overall score, and the timing of each major evaluation.

(b) After the methods of evaluation have been made known, the instructor may not change them or their relative weight without the consent of at least a simple majority of the students enrolled in the course. Any changes shall be reported to the division or the department.

(c) Student performance in a course shall be assessed on more than one occasion. No one essay, test, examination, etc. should have a value of more than 80% of the grade. Criteria for exemption may be determined by the division.

-- [Exempt from this requirement are advanced seminar courses or supervised research or supervised reading courses. In such courses more than 80% of the final grade may be based on a thesis, a research essay or project, or a comprehensive examination.]

(d) *In courses that meet regularly as* a class there shall be an examination (or examinations) conducted formally under divisional auspices and worth (alone or in the aggregate) at least one-third of the final grade. Criteria for exemption may be determined by the division.

-- [In A-level courses, at least one third of the final grade will be based upon a formal examination(s) in the Christmas examination period in December and/or in the final examination 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 annual request of the instructor and approval of the appropriate Divisional Chair.

-- The following courses may be exempted from the requirement for examinations, upon annual request of the instructor and approval of the appropriate Divisional Chair: advanced seminar courses; supervised reading or research courses; field courses; and performance courses such as music performance or art studio courses. All courses which are exempted from the one-third examination requirement are reported annually to the Sub-committee on Curriculum & Standards of the Governing Council.

-- Oral Examinations. At the discretion of the instructor an oral examination may be required in conjunction with any piece of written work. At the examination, the student must defend the ideas advanced in the paper. The grade assigned for the paper may be substantially affected by the results of the oral examination.]

The relative value of each part of an examination shall be indicated to the student. In the case of a written examination, the value shall be indicated on the examination paper.

(e) Commentary on assessed term work and time for discussion of it shall be made available to students.

(f) At least one piece of term work which is a part of the evaluation of a student'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).

II.3 Procedures in the event of disruptions

Principles

The following principles shall apply in the event of disruption of the academic program:

i) The academic integrity of academic programs must be honoured; and

ii) Students must be treated in a fair manner recognizing their freedom of choice to attend class or not without penalty.

Procedures

(a) The Vice-President and Provost, or the Academic Board, shall declare when a disruption of the academic program has occurred. The Provost shall take steps to inform the University community at large of the changes to be implemented, and will report to the Committee on Academic Policy and Programs regarding the implementation of the procedures and changes to the status of the academic programs.

(b) Individual instructors or multi-section co-ordinators responsible for courses that are disrupted shall determine, as the disruption proceeds, whether any changes to classroom procedures are needed to complete the course.

(c) Changes to the classroom procedures should, where possible, first be discussed with students prior to the class in which a vote of the students present on the proposed changes is to be taken. Changes agreed upon by 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 in multi-departmental faculties or the division head, shall make changes deemed necessary to the classroom procedures. In the absence of the instructor such changes will be made by the divisional head and require the approval of the Provost. Where courses are to be cancelled, approval of the divisional council is required. If the divisional council cannot meet, approval of the division head, or in the absence of the division head, the approval of the Provost, is required.

(f) Students must be informed of changes to classroom procedures. This may be done by circulating the changes in writing to the class, posting in the departmental and faculty offices, reporting to the divisional council, as well as listing in the campus press. Should classes resume students must be informed, at class, of any changes made during the disruption.

(g) Where changes to the classroom procedures are made, students who do not wish to complete the course under the revised procedures may withdraw without academic penalty. This must be done prior to the last day of classes.

(h) Where students have not attended classes that are meeting, they nonetheless remain responsible for the course work and meeting course requirements. However, where possible, reasonable extension of deadlines for the course requirements, or provision of make-up tests shall be made and reasonable alternative access to material covered should be provided.

(i) A student who feels, owing to his or her special circumstances, that changes to the classroom procedure have unreasonably affected his or her grade may appeal the grade following the procedures as set out in each division.

II.4 Assessment in clinical and field settings

Divisions may make reasonable exemptions 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 as a minimum:

(a) A formal statement describing the evaluation process, including the criteria to be used assessing the performance of students and the appeal mechanisms available. This statement should be available to all students before or at the beginning of the clinical or field experience;

(b) A mid-way performance evaluation with feedback to the student;

(c) Written documentation of the final assessment. In addition, for 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 exception from the above would require a divisional request with explanation for approval by the Governing Council.

II.5 Grade review and approval process

[The Divisional Review Committee of Scarborough College 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 an system of quotas that specifies the number or percentage of grades allowable at any grade level.

(b) However, a division may provide broad limits to instructors setting out a reasonable distribution of grades in the division or department. Such broad limits shall recognize that considerable variance in class

grades is not unusual. The division may request an explanation of any grades for a course that exceed the limits and hence appear not to be based on the approved grade scales or otherwise appear anomalous in reference to the Policy. It is understood that this section shall only be used when the class size is thirty students or greater. Each division shall make known in the divisional Calendar the existence of any such limits.

(c) The criterion that the Divisional Review Committee shall employ in its evaluation is whether the instructor has followed the University Grading Practices Policy. The Review Committee shall not normally adjust grades unless the consequences of allowing the grades to stand would be injurious to the standards of the University, or the class in general.

(d) Membership on the Divisional Review Committee may include students but should not include members of the divisional appeals committee(s).

(e) Where grades have been adjusted by a divisional committee, the students as well as the instructor shall be informed. On request, the students or the instructor shall be given the reason for the adjustment of grades, a description of the methodology used to adjust the grades, and a description of the divisional appeal process.

(f) Where a departmental review committee changes course grades, the faculty office shall be so informed. Having done so, the faculty office shall relay this information, upon request, to the students or the instructor with a description as to the reason for the change and the methodology used.

(g) Past statistical data, including drop-out rates, mean arithmetic average, etc., should be provided to the Divisional Review Committee as background information where available. The committee will not use this information exclusively to judge whether a specific grades distribution is anomalous. Rather, the information should provide part of the basis for an overall review of grades in a division.

(h) Where class grades have been changed, or when the Divisional Review Committee had reservations about the grades, the issue will be taken up with the instructor by the division or department head, with a view to ensuring that the Grading Practices Policy is followed in future.

Appeals procedure
Every division shall establish divisional appeal procedures. Students may appeal grades according to the procedures established for that purpose in the division. The appeal may be made whether marks have been altered by the review process or not. These procedures shall be outlined in the divisional Calendar, and available upon request at the faculty or registrar's office.

[For procedures for appeals concerning grades and grading practices, see "Procedures for requesting special consideration, petitions, and appeals" (page 00).]

II.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. Exemptions may be granted by an appropriate committee of the division or department.

(b) All divisions should provide students with the opportunity within a reasonable time to review their examination paper where feasible. A recovery fee should be set to cover administrative costs including photocopying.

(c) All divisions should provide, in addition to the customary re-reading of papers and the re-checking of marks, the opportunity for students to petition for the re-reading of their examination where feasible. A cost recovery fee should be set and returned where appropriate.

[For further details, please refer to "Procedures for requesting special consideration, petitions, and appeals" (page 00.]

II.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.

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.
Students are responsible for reading the timetable carefully and appearing at the time specified. Students taking courses during the day may be required to write evening examinations, and students taking evening courses may be required to write day examinations.

Examination timetable conflicts
Students scheduled to write two examinations at the same time should report their conflicts to the Assistant Registrar (Secretariat and Scheduling) (Room S420A, 287-7540). Arrangements will normally be made for students to write both examinations on the same day, with a supervised break. Where the conflict involves a St. George Campus course, arrangements will normally be made for both examinations to be written at Scarborough College. Requests for such arrangements must be made no later than two full weeks before the commencement of examinations and will not be considered after that time.

Students with three consecutive examinations
Students scheduled to write examinations in three consecutive time slots (these are morning, afternoon, and evening) may request special arrangements. Requests for such arrangements must be made with the Assistant Registrar (Secretariat and Scheduling) no later than two full weeks before the commencement of examinations. Requests will not be considered after that time.

Special consideration regarding examinations
Students requesting special consideration because they are unable to write a final examination must submit a petition through the Office of the Registrar no later than the last day of the examination period. Petitions must be accompanied by a medical certificate or other appropriate supporting evidence. Please refer to the information concerning petitions and medical certificates (page 00).

Identification cards
Students will be required to identify themselves at examinations by means of their University of Toronto photo identification card. Students who do not have this card should arrange to obtain one well in advance of the day of their first examination.

Examination room regulations

1. All students are advised to read the section of this Calendar titled Code of Behaviour on Academic Matters.
2. Students are advised to arrive at the examination room at least fifteen minutes before the scheduled examination time. Invigilators will begin the actual examination at the scheduled time.
3. No persons shall be allowed in an examination room during an examination except the students writing the examination and those supervising it.
4. Candidates shall bring their photo identification cards and place them in a conspicuous place on their desks. (Students registered in other Faculties or Colleges of the University shall bring their student cards.)
5. Bags and books are to be deposited in areas designated by the invigilator and are not to be taken to the examination desk or table. Students may dispose of their purses by placing them, closed, on the floor underneath their chairs.
6. The invigilator has the authority to assign seats to candidates.
7. No materials shall be brought into the examination room or used at an examination except those authorized by the Chief Presiding Officer or Examiner.

8 Candidates shall not communicate with one another in any manner whatever while the examinations are proceeding.
9 Candidates bringing any unauthorized material into an examination room or who assist, or obtain assistance from other candidates or from an unauthorized source, are liable to be refused permission to write the remaining part of the examination or any subsequent examinations. Such candidates are also liable to the loss of academic credit for the course, to suspension, or to expulsion from the University.
10 Candidates shall not be permitted to leave the examination room except under supervision until at least half an hour after the examination has commenced.
11 Candidates shall not leave the examination room within the final ten minutes of an examination, during which time they shall remain quietly seated at their desks.
12 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.
13 Examination books and other material issued for the examination shall not be removed from the examination room without the authority of the invigilator.
14 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 Scarborough College* Sub-committee on Standing.
2 To enter a petition, the student prepares a written statement: stating clearly the special consideration requested; - stating clearly the grounds upon which special 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 debility 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.
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.
2 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 Calendar" section of this *Calendar*), 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.

Final examinations

1 Students who, for reason 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, 3, above) certifying in addition that:
- the student was incapable of attempting the examination at the scheduled time.
3 When an 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.
4 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 (A/F 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. Where the Sub-committee accepts the validity of a petition, students will normally be allowed to write a special examination. Students who are concerned 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. Petitions of this nature should be entered as soon as possible, but no later than:

Summer Sessions:
A & F courses - 31 July
B, H, S & Y courses - 30 September

Winter Sessions:
A & F courses - 31 January
B, H, S & Y courses - 30 June

(For deadlines for courses on other campuses, see the appropriate Faculty *Calendar*.)

Where students are allowed to rewrite final examinations, the amended grade will stand whether it is higher or lower than the original grade.

5 A fee is charged for all special examinations in Scarborough College courses and the examinations are held as follows:
- Spring examinations are held in the August examination period.
- June and August examinations are held in the December examination period.
- December examinations are held in the study week ~~immediately before~~ the Spring examination period. preceding

Instructions on confirming intention to sit the examination and on payment of the fee will be included in the reply from the Sub-committee on Standing. Failure to respond or pay the fee by the deadline given will result in loss of privilege to sit the examination.
Students are given one opportunity only to sit the special examination and are expected to be available for the entire special examination period. Students who, unavoidably, will be out of the Toronto area during the special examination period may apply to sit the examination at an outside centre.
Students who miss the special examination for legitimate reasons may petition the Sub-committee on Standing either for aegrotat standing or for withdrawal from the course. The Sub-committee will expect very good supporting documentation, usually indicating a long term debilitating illness. Aegrotat standing will only be considered where the student has completed at least 60% of the course work with a term mark of at least C-.

Requests for checking of marks in a course

Term work

Students who believe that their mark on a term examination or term assignment has been calculated incorrectly should speak with the course instructor as soon as possible to request that the mark be checked.

Final examinations
Students who believe that an error may have occurred in the calculation of their final examination mark may:
1 within six months of the relevant examination period, request from the Office of the Registrar a photocopy of their final examination. A copying fee is required at the time of the request.
2 request a recheck of the calculation through the Office of the Registrar if students believe that an error has been made in the calculation of their examination mark. This request must be entered within six months of the relevant examination period. If an error is discovered and the mark is changed, the copying fee will be refunded. Where the mark is changed, the amended grade will stand whether it is higher or lower than the original grade.

Final grade
Students who believe an error has occurred in the calculation of their final grade, may submit, through the Office of the Registrar, a request for a recheck of the calculation of the grade. This must be done within six months of the relevant examination period. A recheck fee is required at the time of the request. If an error is discovered and the grade is changed, the fee will be refunded. Where the grade is changed the amended grade will stand whether it is higher or lower than the original grade.
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.

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 submitted grades 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).

Final examinations
1 Students may request from the Office of the Registrar a photocopy of their final examination within six months of the relevant examination period. A copying fee is required at the time of the request.
2 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 it, or otherwise identifying the nature of the alleged misevaluation;
- has demonstrated that the alleged misevaluation is of a *substantial nature*: that is, that, in an objective answer, a correct response has been counted as incorrect; or that, in a subjective or essay answer, the response has been underevaluated substantially.

If an error is discovered and the mark is changed, the copying fee will be refunded.
3 Where the Sub-committee on Standing authorizes re-reading of any examination or item of term work, it is the responsibility of the division offering the course to arrange the re-reading and to authorize any change in the grade. It has been the usual practice in the divisions to have examinations or term work re-read by the course instructor, unless some convincing argument is put forward by the student that the work be re-read by another member of the faculty. Claims of prejudice must be supported by a detailed account of incidents and, if possible, confirmation from a third party.
4 Where the Sub-committee on Standing authorizes 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.

5 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 are expected to discuss this complaint with the instructor at once.
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 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.

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 and no later than:
- 30 June for Winter Session courses
- 30 September for Summer courses

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 in writing 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 Associate Dean 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 ninety 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 106, Simcoe Hall, St. George Campus, telephone 978-8794.

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 M5S 1A1 (Telephone 978-4874).

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 at Scarborough College may arrange an appointment at Scarborough Campus with the Sexual Harassment Officer or may go to the downtown office, whichever is more convenient. For an appointment, information, to arrange

educationals or to file a complaint, contact the Sexual Harassment Education, Counselling and, Complaint Office, University of Toronto, 455 Spadina Avenue (at College), Room 302, Toronto, Ontario, M5S 2G7 (telephone 978-3908).

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 enquiry, which is the University's life blood. Its fulfillment depends upon the well being of that relationship whose parties define one another's roles as teacher and student, based upon differences in expertise, knowledge and experience, though bonded by respect, by a common passion for truth and by mutual responsibility to those principles and ideals that continue to characterize the University.

This Code is concerned, then, with the responsibilities of faculty members and students, not as they belong to administrative or professional or social groups, but as they co-operate in all phases of the teaching and learning relationship.

Such co-operation is threatened when teacher or student forsakes respect for the other - and for others involved in learning - in favour of self-interest, when truth becomes a hostage of expediency. On behalf of teacher and student and in fulfillment of its own principles and ideals, the University has a responsibility to ensure that academic achievement is not obscured or underminded by cheating or misrepresentation, that the evaluative process meets the highest standards of fairness and honesty, and that malevolent or even mischievous disruption is not allowed to threaten the educational process.

These are areas in which teacher and student necessarily share a common interest as well as common responsibilities.

B. Offences

The University and its members have a responsibility to ensure that a climate that might encourage, or conditions that might enable, cheating, misrepresentation or unfairness not be tolerated. To this end all must acknowledge that seeking credit or other advantages by fraud or misrepresentation, or seeking to disadvantage others by disruptive behaviour is unacceptable, as is any dishonesty or unfairness in dealing with the work or record of a student.

B.I.

1. It shall be an offence for a student intentionally:
   (a) to forge or in any other way alter or falsify any document or evidence required for admission to the University, or to utter, circulate or make use of any such forged, altered or falsified document, whether the record be in print or electronic form;
   (b) to use or possess an unauthorized aid or aids or obtain unauthorized assistance in any academic examination or term test or in connection with any other form of academic work;
   (c) to personate another person 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". The present sense of plagiarism is contained in the original (1621) meaning in English: "the wrongful appropriation and purloining, and publication as one's own, of the ideas, or the expression of the ideas ... of another." This most common, and frequently most elusive of academic infractions is normally associated with student essays. Plagiarism can, however, also threaten the integrity of studio and seminar room, laboratory and lecture hall. Plagiarism is at once a perversion of originality and a denial of the interdependence and mutuality which are the heart of scholarship itself, and hence of the academic experience. Instructors should make clear what constitutes plagiarism within a particular discipline.
   (e) to submit for credit, 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 programme of study in the University or elsewhere;
   (f) to submit for credit any academic work containing a purported statement of fact or reference to a source which has been concocted.

2. It shall be an offence for a faculty member intentionally:
   (a) to approve any of the previously described offences;
   (b) to evaluate an application for admission or transfer to a course or programme of study by other than duly established and published criteria;
   (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 intentionally:
   (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 cause by action, threat or otherwise in a classroom, laboratory or examination room a disturbance, which the member knows or ought reasonably to know, obstructs the teaching of a course or the holding of a test or examination.

4. The following are offences to the extent that they relate to the teaching and learning relationship. It shall be an offence for a faculty member and student alike intentionally:
   (a) to remove or copy or alter stored information such as books, film, data files or programs from a library, computer or other information storage, processing or retrieval system or its peripheral communications devices without proper authorization; or to mutilate, misplace, misfile, install or render inoperable any such information, program, system or device or in any other way to deprive immediately or at some point in the future without authorization another member or members from using or having access to any such resource;
   (b) to use in a substantial way any information storage, processor or retrieval facility such as a library, computer, telephone, network or telecommunications system, or facsimile or photocopying equipment, or similar equipment, for any other purpose than that for which privileges of use or access have been granted;
   (c) to access any University computer, library, or other information storage, processing or retrieval system or any personal academic file without proper authorization.

5. A graduate of the University may be charged with any of the above offences committed intentionally while he or she was an active student, when, in the opinion of the Provost, the offence, if detected, would have resulted in a sanction sufficiently severe that the degree would not have been granted at the time that it was.

B. II. Parties to Offences

1. (a) Every member is a party to an offence under this Code who intentionally:
   (i) actually commits it;
   (ii) does or omits to do anything for the purpose of aiding or assisting another member to commit the offence;
   (iii) does or omits to do anything for the purpose of aiding or assisting any other person who, if that person were a

member, would have committed the offence;

(iv) abets, counsels, procures or conspires with another member to commit or be a party to an offence; or

(v) abets, counsels, procures or conspires with any other person who, if that person were a member, would have committed or have been a party to the 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 carrying out that intention (other than mere preparation to commit the offence) is guilty of an attempt to commit the offence and liable upon conviction to the same sanctions as if he or she had 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 University, who directed, authorized or participated in the commission of the offence is a party to and guilty of the offence and is liable upon conviction to the sanctions provided for the offence.

C. Procedures in cases involving students

At both the divisional level and the level of the University Tribunal, the procedures for handling charges of academic offences involving students reflect the gravity with which the University views such offences. At the same time, these procedures and those which ensure students the right of appeal represent the University's commitment to fairness and the cause of justice.

C.I.(a) Divisional Procedures

Note: Where a student commits an offence, the faculty in which the student is registered has responsibility over the student in the matter. In the case of Scarborough and Erindale colleges, the college is deemed to be the faculty.

1. No hearing within the meaning of Section 2 of the *Statutory Powers Procedure Act* is required for the purposes of, or in connection with, any of the discussions, meetings and determinations referred to in Section C.I.(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 so inform the student immediately after learning of the act or conduct complained of, giving reasons, and invite the student to discuss the matter. Nothing the student says in such a discussion may be used or receivable in evidence against the student.

3. If after such discussion, the instructor is satisfied that no academic offence has been committed, he or she shall so inform the student and no further action shall be taken in the matter by the instructor, unless fresh evidence comes to the attention of the instructor, in which case he or she may again proceed in accordance with subsection 2.

4. If after such discussion, the instructor believes that an academic 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 Associate Dean*. See also Section C.I.(b) 1.]

5. When the dean [*Vice Principal and Associate Dean*] or the department chair, as the case may be, has been so informed, he or she shall notify the student in writing accordingly, provide him or her with a copy of the Code and subsequently afford the student an opportunity for discussion of the matter. In the case of the dean [*Vice Principal and Associate Dean*] being informed, the chair of the department and the instructor shall be invited by the dean [*Vice Principal and Associate Dean*] to be present at the meeting with the student. The dean [*Vice Principal and Associate Dean*] shall conduct the interview.

6. Before proceeding with the meeting, the dean [*Vice Principal and Associate Dean*] shall inform the student that he or she is entitled to seek advice, or to be accompanied by counsel at the meeting, before making, and is not obliged to make, any statement or admission, but shall warn that if he or she makes any statement or admission in the meeting, it may be used or receivable in evidence against the student in the hearing of any charge with respect to the offence or alleged offence in question. The dean [*Vice Principal and Associate Dean*] shall also advise the student, without further comment or discussion, of the sanctions that may be imposed under Section C.I.(b), and that the dean [*Vice Principal and Associate Dean*] is not obliged to impose a sanction but may instead request that the Provost lay a charge against the student. Where such advice and warning have been given, the statements and admissions, if any, made in such a meeting may be used or received in evidence against the student in any such hearing.

7. If the dean [*Vice Principal and Associate Dean*], on the advice of the department chair and the instructor, or if the department chair, on the advice of the instructor, subsequently decides that no academic 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 Associate Dean*] or the department chair may either impose the sanction that he or she considers appropriate under Section C.I.(b) or refer the matter to the dean [*Vice Principal and Associate Dean*] or Provost, as the case may be, and in either event shall inform the student in writing accordingly. No further action in the matter shall be taken by the instructor, the department chair or the dean [*Vice Principal and Associate Dean*] if the dean [*Vice Principal and Associate Dean*] imposes a sanction.

9. If the student is dissatisfied with a sanction imposed by the department chair or the dean [*Vice Principal and Associate Dean*], as the case may be, the student may refer the matter to the dean [*Vice Principal and Associate Dean*] or Provost, as the case may be, for consideration.

10. If the student does not admit the alleged offence, the dean [*Vice Principal and Associate Dean*] may, after consultation with the instructor and the department chair, request that the Provost lay a charge against the student. If the Provost agrees to lay a charge, the case shall then proceed to the Trial Division of the Tribunal.

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 of or before the Tribunal, unless the chair of the hearing considers that such failure, defect or irregularity resulted in a substantial wrong, detriment or prejudice to the accused. The chair will determine at the opening of the hearing whether there is going to be any objection to 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 Associate Dean*] to bar him or her from a facility. A student upon whom a sanction has been imposed by the dean [*Vice Principal and Associate Dean*] or the department chair under Section C.I.(b) or who has been convicted by the Tribunal shall not be allowed to withdraw from a course so as to avoid the sanction imposed.

13. A record of cases disposed of under Section C.I.(a) and of the sanctions imposed shall be kept in the academic unit concerned and may be referred to by the dean [*Vice Principal and*

Associate Dean] in connection with a decision to prosecute, or by the prosecution in making representations as to the sanction or sanctions to be imposed by the Tribunal, 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 Associate Dean*] to the Secretary of the Tribunal for use in the Provost's annual report to the Academic Board. The dean [*Vice Principal and Associate Dean*] may contact the Secretary of the Tribunal for advice or for information on cases disposed of under Section C.II. hereof.

14. Where a proctor or invigilator, who is not a faculty member, has reason to believe that an academic offence has been committed by a student at an examination or test, the proctor or invigilator shall so inform the student's dean [*Vice Principal and Associate Dean*] or department chair, as the case may be, who shall proceed as if he or she were an instructor, by analogy to the other provisions of this section.

15. In the case of alleged offences not covered by the above and not involving the submission of academic work, such as those concerning forgery or uttering, library or computer material or library or computer resources, 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 of this section.

C.I.(b) Divisional Sanctions

1. In an assignment worth 10 percent or less of the final grade, the department chair may handle the matter if:
   (i) the student admits guilt; and
   (ii) the assignment of a penalty is limited to *at most* a mark of zero for the piece of work.

   If the student does not admit guilt, or if the department chair chooses, the matter shall be brought before the dean [*Vice Principal and Associate Dean*].

2. One or more of the following sanctions may be imposed by the dean [*Vice Principal and Associate Dean*] where a student admits to the commission of an offence:
   (a) a written reprimand;
   (b) a written reprimand and, with the permission of the instructor, the resubmission of the piece of academic work, in respect of which the offence was committed, for evaluation. Such a sanction shall be imposed only for minor offences and where the student has committed no previous offence;
   (c) assignment of a grade of zero or failure for the piece of academic work in respect of which the offence was committed;
   (d) assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;
   (e) denial of privileges to use any facility of the University, including library and computer facilities;
   (f) a monetary fine to cover the costs of replacing damaged property or misused supplies in respect of which the offence was committed;
   (g) assignment of a grade of zero or a failure for the course in respect of which the offence was committed;
   (h) suspension from attendance in a course or courses, a program, an academic division or unit, or the University for a period of not more than twelve months. Where a student has not completed a course or courses in respect of which an offence has not been committed, withdrawal from the course or courses without academic penalty shall be allowed.

3. The dean shall have the power to record any sanction imposed on the student's academic record and transcript for such length of time as he or she considers appropriate. However, the sanctions of suspension or a notation specifying academic misconduct as the reason for a grade of zero for a course shall normally be recorded for a period of five years.

4. The Provost shall, from time to time, indicate appropriate sanctions for certain offences. These guidelines shall be sent for information to the Academic Board and attached to the Code as Appendix "C".

C.II.(b) Tribunal Sanctions

1. One or more of the following sanctions may be imposed by the Tribunal upon the conviction of any student:
   (a) a written reprimand;
   (b) a written reprimand and, with the permission of the instructor, the resubmission of the piece of academic work, in respect of which the offence was committed, for evaluation. Such a sanction shall be imposed only for minor offences and where the student has committed no previous offence;
   (c) assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;
   (d) assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;
   (e) denial of privileges to use any facility of the University, including library and computer facilities;
   (f) a monetary fine to cover the costs of replacing damaged property or misused supplies in respect of which the offence was committed;
   (g) assignment of a grade of zero or a failure for any completed or uncompleted course or courses in respect of which any offence was committed;
   (h) suspension from attendance in a course or courses, a program, an academic unit or division, or the University for such a period of time up to five years as may be determined by the Tribunal. Where a student has not completed a course or courses in respect of which an offence has not been committed, withdrawal from the course or courses without academic penalty shall be allowed;
   (i) recommendation of expulsion from the University. The Tribunal has power only to recommend that such a penalty be imposed. In any such case, the recommendation shall be made by the Tribunal to the President for a recommendation by him or her to the Governing Council. Expulsion shall mean that the student shall be denied any further registration at the University in any programme and his or her academic record and transcript shall record permanently this sanction. Where a student has not completed a course or courses in respect of which an offence has not been committed, withdrawal from the course or courses without academic penalty shall be allowed. If a recommendation for expulsion is not adopted, the Governing Council shall have the power to impose such lesser penalty as it sees fit.
   (j) (i) recommendation to the Governing Council for cancellation, recall or suspension of one or more degrees, diplomas or certificates obtained by any graduate; or
   (ii) cancellation of academic standing or academic credits obtained by any former student who, while enrolled, committed any offence which if detected before the granting of the degree, diploma, certificate, standing or credits would, in the judgement of Tribunal, have resulted in a conviction and the application of a sanction sufficiently severe that the degree, diploma, certificate, standing, credits or marks would not have been granted.

2. The jury 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 jury considers appropriate.

3. The Tribunal may, if it considers appropriate, report any case to the Provost who may publish a notice of the decision of the Tribunal and the sanction or sanctions imposed in the University newspapers, with the name of the student withheld.

NOTE: The College has a policy on the use of calculators in tests and examinations. Students should consult with instructors about whether the use of calculators is permissible in their course and if so which models are approved. The use of an unauthorized calculator may be treated as an academic offence.

Code of Student Conduct

A. Preface

1. The University of Toronto is a large community of teaching staff, administrative staff and students, involved in teaching, research, learning and other activities. Student members of the University are adherents to a division of the University for the period of their registration in the academic program to which they have been admitted and as such assume the responsibilities that such registration entails.

2. *As an aacademic community, the* University governs the activities of its members by standards such as those contained in the Code of Behaviour on Academic Matters, which provides definitions of offences that may be committed by student members and which are deemed to affect the academic integrity of the University's activities.

3. The University sponsors, encourages or tolerates many non-academic activities of its members, both on its campuses and away from them. These activities, although generally separate from the defined requirements of students' academic programs, are a valuable and important part of the life of the University and of its students.

4. The University 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 activites in or on the University's premises. Strict regulation of such activities by the University of Toronto is otherwise neither necessary nor appropriate.

5. University members are not, as such, immune from the criminal and civil laws of the wider political units to which they belong. Provisions for non-academic discipline should not attempt to shelter students from their civic responsibilities nor add unnecessarily to these responsibilities. Conduct that constitutes a breach of the Criminal Code or other statute, or that would give rise to a civil claim or action, should ordinarily be dealt with by the appropriate criminal or civil court. In cases, however, in which criminal or civil proceedings have not been taken or would not adequately protect the University's interests and responsibilities as defined below, proceedings may be brought under a discipline code of the University, but only in cases where such internal proceedings are appropriate in the circumstances.

6. The University must define standards *of student behaviour and make provisions* for student discipline with respect to conduct that jeopardizes the good order and proper functioning of the academic and non-academic programs and activities of the University or its divisions, that endangers the health, safety, rights or property of its members or visitors, or that adversely affects the property of the University or bodies related to it, where such conduct is not, for the University's defined purposes, adequately regulated by civil and criminal law.

7. Nothing in this Code shall be construed to prohibit peaceful assesmblies and demonstrations, lawful picketing, or to inhibit freedom of speech as defined in the University.

8. In this Code, the word "premises" includes lands, buildings and grounds.

9. In this Code, "student" means a member of the University

i) engaged in any academic work which *leads to the recording and/or issue of* a mark, grade or statement of performance by the appropriate authority in the University or another institution; and/or

ii) registered in any academic course which entitles the member to the use of a University library, library materials, library resources, *computer facility or dataset.*

10. In the following, the words "University of Toronto" refer to the University of Toronto and include any institutions federated or affiliated with it, where such inclusion has been agreed upon by the University and the federated or affiliated institution, with respect to the premises, facilities, equipment, services, activities, students and other members of the federated or affiliated institution.

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 standards of professional conduct as required by a college, faculty or school; 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 Policy and Procedures: Sexual Harassment; and

iii) occurs on premises of the University of Toronto or elsewhere in the course of activites sponsored by the University of Toronto or by any of its divisions.

1. Offences against persons

a) No person shall assault another person sexually or threaten any other person with sexual assault.

b) No person shall otherwise assault another person, threaten any other person with bodily harm, or knowingly cause any other person to fear bodily harm.

c) No person shall knowingly 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.

2. Disruption

No person shall cause by action, threat or otherwise, a disturbance that the member knows obstructs any activity organized by the University of Toronto or by any of its divisions, or the right of another member or members to carry on their legitimate activities, to speak or to associate with others.

For example, peaceful picketing or other activity outside a class or meeting that does not substantially interfere with the communication inside, or impede access to the meeting, is an acceptable expression of dissent. And silent or symbolic protest is not to be considered disruption under this Code. But noise that obstructs the conduct of a meeting or forcible blocking of access to an activity constitutes disruption.

3. Offences involving property

a) No person shall knowingly take, destroy or damage *premises of the* University of Toronto.

b) No person shall knowingly take, destroy or damage any physical property that is not her or his own.

c) No person shall knowingly destroy or damage information or intellectual property belonging to the University of Toronto or to any *of its members.*

d) No person, in any manner whatsoever, shall knowingly deface the inside or outside of any building of the University of Toronto.

e) No person, knowing the effects or property to have been appropriated without authorization, shall possess effects or property of the University of Toronto.

f) No person, knowing the effects or property to have been appropriated without authorization, shall possess any property that is not her or his own.

g) No person shall knowingly create a condition that unnecessarily endangers or threatens destruction of the property of the University of Toronto or of any of its members.

4. Unauthorized entry or presence

No person shall, contrary to the expressed *instruction of a person* or persons authorized to give such instruction, or with intent to damage or destroy the premises of the University of Toronto or damage, destroy or steal any property on the premises of the University of Toronto that is not her or his own, or without just cause knowlingly enter or remain in or on any such premises.

5. Unauthorized use of University facilities, equipment or services

a) No person shall knowingly use any facility, equipment or service of the University of Toronto contrary to the expressed instruction of a person or persons authorized to give such instruction, or without just cause.

b) No person shall knowingly gain access to or use any University computing or internal or external 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 uses for University connections to external networks are described, for example, in the policy document "Appropriate Use Policy for the ONet Network.*

c) No person shall knowingly mutilate, misplace, misfile, or render inoperable any stored information such as books, film, data files or programs from a library, computer or other information storage, processing or retrieval system.

6. False charges

No person shall knowingly or maliciously bring a false charge against any member of the University of Toronto under this Code.

7. Aiding in the commission of an offence

No person shall counsel, procure, conspire with or aid a person in the commission of an offence defined in this Code.

8. Refusal to comply with sanctions

No person found guilty of an offence under this Code shall refuse to comply with a sanction or sanctions imposed under the procedures of this Code.

C. Hearing Procedures

Anyone who believes an offence under this Code has been committed, may initiate a complaint by bringing the matter to the attention of the principal of the college or dean of the faculty of the student who is alleged to have committed the offence.

D. Sanctions

The following sanctions or combinations of them may be imposed upon students found guilty of committing an offence under this Code.

Penalties that directly affect a student's registration in a program, such as suspension or the recommendation for expulsion, 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.

In addition, students found guilty may be placed on conduct probation for a period not to exceed one year, with the provision that one or more of the following sanctions will be applied if the conduct probation is violated.

1. Formal written reprimand
2. Order for restitution, rectification or the payment of damages
3. A fine or bond for good behaviour not to exceed $100
4. Requirement of public service work not to exceed 25 hours
5. Denial of access to specified services, activities or facilities of the University for a period of up to one year
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

Part-time Studies

All students, whether part-time or full-time, are subject to the same admission standards, are governed by the same rules and regulations, and are required to satisfy the same degree requirements.

It is true, however, that students whose outside commitments prevent them from coming to the College during the day may find that they have less access to services in the University (although the Registrar's Office is open from 5:00 pm to 7:00 pm on class nights) and to the informal student network. Part-time students should try to make the time to develop contact with their fellow students and with faculty members, since this is an integral part of the University experience. When problems arise, evening students are encouraged to contact Counselling Services (287-7550). Counselling Services does not have regular evening hours but evening counselling appointments can be arranged. 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 Scarborough College

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 287-7529.

Awards

Part-time students are considered for most awards and scholarships on the same basis as full-time students. Some special awards and bursaries for part-time students are available through APUS. For further information see the Awards section of this *Calendar*.

Academic Regulations and Degree Requirements

Part-time students are governed by the same regulations as any other student. Students are responsible for reading through the section of the *Calendar* dealing with Academic Regulations. When in doubt, students should contact the Office of the Registrar or Counselling Services for assistance in interpreting regulations and their applications in particular cases. We have noted below several regulations that seem of particular relevance to part-time students. However, this list is by no means exhaustive. It must be emphasized that all

rules and regulations apply to part-time students and that the fact that a particular rule is not quoted below in no way suggests that it will not apply.

1 Because part-time students are often involved in their studies for more years than full-time students, part-time students may more frequently find that degree or programme requirements change during their academic career. When changes occur, students are usually 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 College 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 takes the form of a petition to Scarborough College Sub-committee on Standing. Students who believe that such special consideration is necessary should contact a counsellor in Counselling Services at the earliest possible time to discuss the appropriate form of action. Students should be aware that special consideration may not be granted and should avoid taking any action that will harm them if the petition is denied.

Choosing a Programme

Since most students must complete 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 below with 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.

Anthropology Specialist and Major Programme

Normally, one of the following core requirements is offered on a rotational basis [ANTB15Y, ANTB20, ANTB26] every year during the evening.

Economics Major Programme

Each of the four courses specifically required for the Economics Major [ECOA03Y, ECOB03Y, ECOB07Y, ECOB09Y] is offered in the evening at least once each year. ECOA03Y and ECOB03Y are offered in both summer and winter evening sessions each year. ECOB07Y and ECOB09Y 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 and Major Programme

English courses are, as far as possible, cycled as follows:

ENGA11Y - every two years.
ENGB01Y - every two years.
ENGB02Y - every four years
ENGC59Y - every four years.
Pre-1800 courses - at least every two years.
Post-1800 courses - at least one every year.
D-level courses - usually 3 half-courses every year.

History Specialist and Major Programme

HISA01Y offered in the evening normally every other year.
Upper level History courses - at least two offered every year.

Philosophy Specialist and Major Programme

PHLA01Y offered in the evening every other year.
PHLB01F, PHLB20F/S, PHLB50F, PHLB60F/S - two of these courses are usually offered every year.

Political Science Major Programme

POLA50Y offered every second year.
Core area courses [POLB60Y; B80Y; B86Y; B87Y] offered every three or four years.
Others, including C & D level courses, occasionally.

Psychology Specialist and Major Programme

The following courses are normally offered annually in the evening and/or in the summer: PSYA01Y, PSYB01, and PSYB07, all of which are required for both programmes. As well, all courses in each of the content areas and all D-level courses appear in the evening or summer on approximately a 3-year cycle. Part-time students are also encouraged to check the offerings on the St. George campus, to which they have access and which they will find are not identical to those at Scarborough in a given year.

Sociology Minor Programme

Some Sociology courses will be offered in the evening or summer session every year. These will normally include SOCA01Y 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.

Telephone directory: frequently called numbers

Athletic Association (S.C.A.A.)	287-7096
Bookstore	287-7035
Cafeteria	287-7057
Campus Police (Including Lost and Found)	287-7398
Career Counselling & Placement	287-7559
Computer Centre	287-7389 287-7390 287-7391
Co-operative Programmes	287-7110
Counselling Services	287-7550
Development & Public Relations Office	
Events enquiries	287-7080
Drama	287-7175
Fees Department	978-2142
Health Service	287-7065
High School Liaison (Tours)	287-7556
Humanities Division	
Classics,History, Philosophy	287-7117
Fine Art, English, Humanities, Linguistics	287-7119
Languages	287-7120
Chair's Office	287-7127
International Student Centre	978-2564
Library	
Inquiry, Circulation Desk	287-7482
Reference Desk	287-7480
Life Sciences Division	
Biological Sciences, Psychology	287-7400
Chair's Office	287-7397
Music	287-7194
Management & Economics Division	
Secretary	287-7331
Chair's Office	287-7341
Associate Chair	287-7348
Physical Sciences Division	
R-Wing Office	287-7200
S-Wing Office	287-7195
Chair's Office	287-7197
Physical Plant Services (Parking enquiries)	287-7575
Principal and Dean	287- 7025
Pub	287-7616
Recreation Centre	
Counter (reservations)	287-7099
Office (information)	287-7090
Registrar's Office	
Enquiries	287-7537
Admissions/Scholarships	287-7529
Automated Telephone Course Registration Service	872-8638
Residences	
Office	287-7366
Dean of Students in Residence	287-7150
Social Sciences Division	
Receptionist	287-7282
Chair's Office	287-7287
Student Awards (OSAP)	978-7950
Students' Council	
Scarborough College (SCSC)	287-7047
Vice-Principal and Associate Dean	287-7566
Writing Centre	287-7562
APUS	978-3993

Index

Academic Calendar:
Summer Session 1993 6
Winter Session 1993/94 7
Academic Offences 246
Academic Regulations 219
Academic Standing 226
Academic Transcripts 230
Access to Student Records 231
Administration Co-operative Programme 50
Arts Administration Co-op Programme 53
Admissions 206
Admission - Bases of 206
Admission Awards 212
Admission Requirements 206
Admission Requirements for Students entering Scarborough College from Grade Thirteen 206
Aegrotat Standing 227
Anthropology 17
Anthropology Major Programme 18
Anthropology Minor Programme 18
Anthropology Specialist Programme 17
Appeals Procedures 242
Application Dates 206
Application Procedures 206
Approved Individual Programmes 225
Arts 23
Arts Specialist Programme 23
Astronomy 24
Astronomy and Physics Major Programme 171
Astronomy, Physics and Mathematics Specialist Programme 160
Awards 212

Biochemistry Major Programme 172
Biochemistry and Chemistry Specialist Programme 161
Biological Sciences 26
Biological Sciences Major Programme 26
Biological Sciences Minor Programme 27
Biological Sciences Specialist Programme 27
Bursaries 218

Chemistry 35
Chemistry Specialist Programme 161
Chemistry and Biochemistry Specialist Programme 161
Chemistry Major Programme 171
Child Care Centre 5
Classical Studies 39
Classical Studies Minor Programme 40
Code of Behaviour: Academic Matters 246
Code of Student Conduct 252
Cognitive Science Major Programme 45
Cognitive Science Specialist Programme 44
Computer Science 46
Computer Science Specialist Programme 163
Computer Science for Data Management Specialist Programme 46
Computer Science and Mathematics Specialist Programme 163
Computer Science and Physical Sciences Co-operative Programme 165
Computer Science and Physics Specialist Programme 164
Computer Science and Statistics Specialist Programme 164
Co-operative Programmes 50
Course Selection 221
Courses on other Campuses 228

Debts to the University 219
Degrees 230
Degree Requirements 224
Development Studies Major Programme 126
Disabled - Special Services 220
Discipline:
Academic Matters 246
Non-Academic Matters 252
Drama 64
Drama Major Programme 65
Drama Specialist Programme 64

Ecology and Environmental Biology Specialist Programme 28
Economics 68
Economics Major Programme 71
Economics Specialist Programme 69
Economics and History Specialist Programme 70
Economics and Management Specialist Programme 140
Economics and Mathematics Specialist Programme 70
Economics and Political Science Specialist Programme 70
Economic Theory and Management Specialist Programme 140
English 76
English Major Programme 77
English Specialist Programme 76
Environmental Chemistry Specialist Programme 162
Environmental Earth Sciences Specialist Programme 169
Environmental Science 83
Environmental Science Specialist Programme 167
Environmental Science Major Programme 172
Environmental Science Co-op Programme 167
Extra Courses 227

Faculty of Scarborough College 9
Final Examinations 241
Fine Art 90
Fine Art History Major Programme 91
Fine Art History Specialist Programme 90
Fine Art Studio Major Programme 95
Fine Art Studio Specialist Programme 94
French 99
French Language Major Programme 101
French Language and Literature Major Programme 101
French Minor Programme 101
French Specialist Programme 100

General Interest Courses 17
Geography 108
Geography Major Programme 108
Geography Minor Programme 109
Geography Specialist Programme 108
Geology 112
German 112
German Language Major Programme 113
German Language Minor Programme 113
Grade Point Average 227
Grading Practices Policy 235
Graduation Prizes 217
Graduation with High Distinction and with Distinction 218
Greek 115
Greek and Roman History 115

History 115
History Major Programme 116
History Minor Programme 116
History Specialist Programme 115
History of the College 4
Honours List 217
Humanities 121
Humanities College Programme 122

Important Information 2
In-course Awards 213
International Development Studies 126
International Development Studies Co-operative Programme 58
Italian 127
Italian Language Major Programme 128
Italian Language Minor Programme 128

Language and Management Specialist Programme 139
Language Studies 131
Language/Literature Specialist Programme 131
Linguistics 134
Linguistics Major Programme 135
Linguistics Minor Programme 135
Linguistics Specialist Programme 135
Management 138
Management Specialist Programme 139
Management and Economics Specialist Programme 140
Management and Economic Theory Specialist Programme 140
Management and Language Specialist Programme 139
Mathematics 146
Mathematical Sciences Major Programme 173
Mathematics Specialist Programme 169
Mathematics and Economics Specialist Programme 70
Mathematics and Statistics Specialist Programme 170
Modern Greek Minor Programme 40
Modern Languages Specialist Programme 131
Music 149
Music Major Programme 149
Music Minor Programme 149

Neuroscience 153
Neuroscience Major Programme 154
Neuroscience Specialist Programme 153
Non-Academic Offences 252
"N'Sheemaehn" 5

Officers and Faculty of Scarborough College 8
Officers of the University 8
Oral Examinations 237
Overall Limits 228
Overall Standing 227

Part-time Studies Information 255
Petitions Procedures 242
Philosophy 155
Philosophy Major Programme 156
Philosophy Specialist Programme 156
Physical and Computer Science Co-operative Programme 165
Physical Sciences Scarborough 160
Physical Sciences Specialist Programme 170
Physics 174
Physics and Computer Science Specialist Programme 164
Political Science 176
Political Science Major Programme 177
Political Science Minor Programme 177
Political Science Specialist Programme 176
Political Science and Economics Specialist Programme 177
Probation 227
Programmes Listing 15
Programme Requirements: New Rules 224

Psychology 182
Psychology Major Programme 183
Psychology Minor Programme 184
Psychology Specialist Programme 183

Russian 192

Sanctions 250
Scarborough College Honours List 217
Secondary School Prerequisites 209
Society, Values and Medicine
  Major Programme 193
Sociology 193
Sociology Major Programme 193
Sociology Minor Programme 193
Sociology Specialist Programme 193
Spanish 198
Spanish Language Major Programme 198
Spanish Minor Programme 198
Special Consideration 242
Special Services 220
Special Students 234
Standing in a Course 226
Statistics 201
Stratford Summer Seminars 205
Students in Debt to the University 219
Study at other Universities:
  Letters of Permission 228
  Study Elsewhere Year 228

Telephone Directory 257
Term Work 243

University Ombudsperson 245

Withdrawal 223
Women's Studies Major Programme 202
Women's Studies Minor Programme 203

Untitled 184 cm × 151 cm
by Sheree Wong, a first year student in the
Fine Art Studio Programme at Scarborough College.