# undergraduate calendar 

## CONCORDIA UNIVERSITY'S MISSION STATEMENT

Concordia is an urban university which is responsive to the needs of a diverse student population as well as to the bilingual and multicultural environment in which it resides. It is a welcoming community where values of equality, nondiscrimination and tolerance of diversity are appreciated and actively promoted. Furthermore, Concordia is committed to responsible and innovative leadership in fulfilling the mission of universities to develop and disseminate knowledge and values and to act as a social critic. The University seeks to achieve this end by offering its students inclusive and accessible academic programs which stress a broad-based, interdisciplinary approach to learning, by fostering an environment of academic and pedagogical freedom, as well as by a dedication to superior teaching supported by the best possible research, scholarship, creative activity and service to society. Through these means, the University prepares its graduates, at all levels, to live as informed and responsibly critical citizens who are committed to learning and to the spirit of enquiry.

## The Calendar is an official University document defining

 academic programs and the regulations which pertain to them. It is accurate as of its printing date. The University Senate reserves the right to modify the academic programs and regulations at its discretion after the publication date of the Calendar. In addition, the University reserves the right to modify the published scale of tuition and other student fees at any time before the beginning of an academic term. The most current information is available from the Office of the Registrar and, for graduate programs, the School of Graduate Studies. Moreover, the information contained in the Calendar or any other University document related to academic programs and regulations is subject to verification and correction by the Office of the Registrar and the School of Graduate Studies.- Not all courses listed in this Calendar are offered this year. Students are advised to consult the Undergraduate Class Schedule for a timetable of courses offered.
- On November 15, 2000, the Faculty of Commerce and Administration at Concordia University became the John Molson School of Business.
- For information concerning graduate programs, contact the School of Graduate Studies - (514) 848-3800. The office is located at 2145 Mackay Street near the Hall Building.

Concordia University is a totally smoke free environment as of January 1, 1993. Offenders may be fined under provincial legislation.

## PRICE: \$7.00

plus postage and handling

## Copies of the Calendar are available at Concordia bookstores.

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Concordia University is one of the largest urban universities in Canada. It has two campuses - one in downtown Montréal (Sir George Williams), the other in a residential setting in the city's west end (Loyola).

The University has long promoted accessibility, innovation and an interdisciplinary approach to learning as its fundamental characteristics. As an urban university, it is also responsive to Montréal's bilingual and multicultural environment, and has a strong tradition in part-time education.

Approximately 92\% of Concordia's students are Canadians and 8\% are International students. Approximately $15 \%$ of Concordia students list French as their mother tongue.

More than 4,650 students a year are granted degrees at the graduate and undergraduate levels. Over 500 students earn scholarships and fellowships.

Concordia employs about 2,600 people, both full-time and part-time, including 742 full-time professors, 880 part-time instructors (CUPFA only), and 26 professional librarians. Among the part-time instructors is a large number of professionals drawn from the artistic community and the business world.

For the 2000-01 fiscal year, the value of grants and contracts allotted to Concordia researchers was in the amount of 16.8 million dollars. Additionally, within the Canada Foundation for Innovation program, the Federal Government, the Ministère de l'Education du Québec, and other public and private donors have awarded 22.9 million dollars to Concordia for research-related equipment and facilities. Concordia's research interests can be grouped into four multi- and interdisciplinary clusters, namely: Manufacturing and Transportation Systems; Learning, Human Development and Human Environment; Information Technologies and their Basic Foundations; and Health and Life Sciences. Areas of particular focus within the four clusters are composites, nannotechnologies, aviation management, building envelope performance, telecommunications, artificial intelligence, multimedia and digital technology, mathematics and statistics, behavioural neurobiology, computational chemistry, bioinformatics and genomics.

Concordia recognizes the increasing importance of international academic relations and it operates a Centre for International Academic Cooperation to encourage, monitor and co-ordinate the University's international activities. During the past decade, Concordia professors have travelled to more than 100 countries, and Concordia continues to play host to visiting students and professors from every corner of the globe. Formal linkages have been established with universities in Brazil, the People's Republic of China, France, Germany, Hong Kong, India, Israel, Japan, the Netherlands, Poland, Trinidad and Tobago, the United States and Zimbabwe. Research and study programs have also been held in Costa Rica, Great Britain, Greece, and Italy, among others.

The University holds the distinction of being the first in the western world to establish a joint doctoral program with a university in The People's Republic of China, and Concordia is still active in that country. Formal exchange programs have been established with eight of the PRC's leading academic institutions. As a consequence, Concordia professors now travel to China to teach PhD courses in Civil Engineering, Computer Science, and a growing array of other disciplines in the arts, sciences and engineering.

Concordia is the only English-language University in Québec with a Co-operative Education program, a process by which academic study terms are alternated with work terms in business and industry to give students practical, on-the-job experience. The areas of work experience included in the Concordia program are Accountancy, Actuarial Mathematics, Biochemistry, Building Engineering, Chemistry, Civil Engineering, Computer Engineering, Computer Science, Economics, Electrical Engineering, Finance, French Translation, Human Resource Management, Industrial Engineering, Management Information Systems (MIS), Marketing, Mathematics and Statistics, Mechanical Engineering, and Software Engineering.

Established in 1974 with the merger of Loyola College and Sir George Williams University, Concordia offers more than 250 graduate and undergraduate programs in four Faculties (Arts and Science, John Molson School of Business, Engineering and Computer Science, and Fine Arts) and the School of Graduate Studies. At the undergraduate level, the University offers BAdmin, BA, BComm, BCompSc, BEd, BEng, BFA, and BSc degrees, as well as Certificate programs.

At the graduate level, the University awards MA, MSc, MTM, MBA, MASc, MApCompSc, MEng, and MFA degrees.

Programs leading to the PhD degree are offered in Administration, Art Education, Art History, Biology, Building Studies, Chemistry, Civil Engineering, Communication, Computer Science, Economics, Educational Technology, Electrical and Computer Engineering, History, Humanities, Mathematics, Mechanical Engineering, Psychology, Religion, and in Special Individualized programs.

The following graduate certificate programs are offered: Anglais/français en langue et technique de localisation, Building Studies, Community Organizational Development, Computer Engineering, Cultural Affairs and Event Management, Design of Application Specific Circuits, Digital Technologies in Design Art Practice, E-Business, Environmental Engineering, Management Accountancy, Management of Health Care Organizations, Mechanical Engineering, Micro-devices and Fabrication Processes, Software Systems for Mechanical and Aerospace Engineering, Telecommunications, and User Interface Design for Software Systems.

The University also offers graduate diploma programs in Accountancy, Administration, Adult Education, Advanced Music Performance Studies, Communication Studies, Community Economic Development, Computer Science, Economic Policy, Environmental Impact Assessment, Instructional Technology, Investment Management, Journalism, Sport Administration, and Translation.

Enrolment as of Fall 2002 was:

| Full-time undergraduate | 13,867 | Full-time graduate | 3,660 |
| :--- | ---: | :--- | ---: |
| Part-time undergraduate | 8,508 | Part-time graduate | 947 |

Independent students 2,596

In addition to the programs described in this Calendar and in the School of Graduate Studies Calendar, the University offers a wide range of summer courses and programs on both campuses. A separate publication listing summer offerings is published annually.

Concordia is on the Internet with a Web site that allows visitors to learn all about the University. Options allow the user to access academic information, go on a tour of the libraries, locate campus activities, find information for students and about administrative services, search through the directory and sign the guestbook. Concordia's Web site address is http://www.concordia.ca.

## Service Centre

Located in the J.W. McConnell Library Building, the Birks Student Service Centre is a one-stop service centre that provides integrated front-line Admissions, Student Accounts as well as all registrarial services. In addition, the Centre maintains a self-service touch-screen terminal for reports of standing. Other self-service applications available to students include CARL - Concordia Automated Response Line, a bilingual touch-tone system for grades and registration.

## Campus Tours

The Office of Student Recruitment offers Campus Tours services. These include not only information on academic programs and university activities but also self-guided, general, and customized visits of both campuses.

## Libraries

Concordia University has two libraries: the R. Howard Webster Library on the downtown Sir George Williams Campus and the Georges P. Vanier Library on the west-end Loyola Campus. Both libraries offer the same services; however, their collections differ in content, having reference and research collections which support the programs and courses offered on the respective campuses.

Many electronic information services are available both in the libraries and by remote access from off-site computers. CLUES, the library information system, includes the catalogue of both libraries' collections. Students can also choose from an extensive list of bibliographic and full-text databases which provide references to periodical literature in most subject areas; many of these databases can be searched from off-campus computers with Internet access.

Librarians at the reference desks can provide students with help in choosing library material for assignments and research. For specialized assistance, students may consult subject librarians who are responsible for both selection and reference work within defined subject areas. Subject librarians also offer individual and group instruction in effective research methodology. A schedule of general library workshops offered each term may be picked up in either library, or found on the libraries' Web site listed below.

Undergraduate students may borrow books for a two-week period. Audio-visual materials may have a shorter loan period. In addition, laptops are available for a two-hour loan period. The libraries' interlibrary loan service facilitates document delivery and borrowing of materials from other libraries at the local, national or international level.

Complete information concerning the libraries' collections and services, including the names of subject librarians, is made available in print format in the libraries and on their Web site at http://library.concordia.ca.

## Instructional and Information Technology Services

Instructional and Information Technology Services (IITS) provides computing and audio-visual resources and services to students, researchers, the library, and the University administration. The Department maintains a high-speed data communications network which brings together the many buildings and the two campuses; this network is itself linked to the international community via the Internet. Available computing resources include several super-mini computers, extensive lab facilities offering 250 public access personal computers ( 150 Pentium and 486 level DOS machines, 100 Macintosh), Internet access, and specialized graphics equipment. A comprehensive software library is available including numerical analysis routines, statistical processing packages, database products, simulation languages, graphics support, all widely used computer languages, text processing, on-line news services and many other general purpose utilities. IITS provides around-the-clock computer access, with consulting services available during normal University operating hours. Newsletters and information sheets (Info Notes) detail these services and facilities, and are available at the service areas located on each campus.

IITS operates three audio-visual equipment depots, primarily responsible for media services in teaching areas, but also providing over-the-counter sales of materials and loan of equipment to students, faculty and staff.
The facilities in the IITS Learning Laboratories, media workshops (AVISTAs), television and sound studios, preview and presentation rooms, cinemas and media library, are also available to students, faculty and staff, on an individual basis, for self-instruction, training and the preparation of presentation materials.

Professional production services and consultation are available in the areas of video, sound, graphics, photography, computer controlled presentation and distance education.

The University is a member of the Québec educational television network, CANAL, which broadcasts a variety of credit and non-credit courses, lectures, seminars and interviews on UHF Channel 29 in the Montréal region and on Cable 23 in other areas of Québec.

## Art Galleries

The Leonard and Bina Ellen Art Gallery is located in the J.W. McConnell Building. One of the major small museums in Canada, the Gallery features a year-round program of exhibitions of Canadian art in all visual media. Most presentations are organized by the Gallery's own staff, but some shows are brought in from other art institutions across Canada.

The Gallery has a permanent collection of Canadian art with a special emphasis on modern and contemporary work. The collection includes painting, sculpture, works on paper, mixed media and photography. Selections from the collection are frequently included in the Gallery's exhibitions. Illustrated bilingual publications accompany the majority of the exhibitions.

The V.A.V. Gallery, devoted to work by undergraduate students in the visual arts programs of the Faculty of Fine Arts, is located on the main floor of the Visual Arts Building at the corner of René-Lévesque Boulevard and Crescent Street. In the Bourget Building on Mountain Street, exhibitions of work by Fine Arts graduate students are presented in the gallery on the main floor.

## Theatre, Music and Arts Studios

The Faculty of Fine Arts operates several performing arts facilities on the Loyola Campus, including a state-of-the-art concert hall, seating 600, and the Joseph P. Cazalet Studio, a flexible teaching facility serving theatre students. Dramatic productions on the Sir George Williams Campus are staged in the D.B. Clarke Theatre, a well equipped 380-seat facility in the Henry F. Hall Building.

Specialized studios and workshops for undergraduate and graduate students in the visual arts are located in the Visual Arts Building and the MF Annex.

Music students use ensemble rooms and practice studios in the Refectory Building on the Loyola Campus. Performances are given in the large ensemble rooms and in the Oscar Peterson Concert Hall. Dance and theatre students use studios in the TJ Annex, located on the Loyola Campus.

Film
Concordia University houses an impressive collection of films of historic and cultural value.

## Athletic Facilities

The University offers extensive programs for participation in intramural and intercollegiate sports. Facilities include several full-sized playing fields and a fully equipped physical education centre on the Loyola Campus. The centre includes a gymnasium and an ice arena, as well as training and sports medicine areas, an activities room and a weight-training room.


## Loyola Campus - (H4B 1R6)

AD 7141 Sherbrooke W. (Administration Building)
BB 3502 Beimore Ave
BH 3500 Belmore Ave (Belmore House)
BR 7141 Sherbrooke W. (Bryan Building)
CC 7141 Sherbrooke W. (Central Building)
DA 7141 Sherbrooke W. (Drummond Auditorium)
DL 7141 Sherbrooke W. (Russell Breen Senate Chamber)
DS 7141 Sherbrooke W. (Drummond Science)

FC 7141 Sherbrooke W. (F.C. Smith Auditorium)

HA 7141 Sherbrooke W. (Hingston Hall - A)
HB 7141 Sherbrooke W. (Hingston Hall - B)

HC 7141 Sherbrooke W. (Hingston Hall - C)

PA 7200 Sherbrooke W. (Athletics Complex)
PB 7200 Sherbrooke W. (Athletics Boiler Room)
PE 7200 Sherbrooke W. (Athletics Rink)

PG 7200 Sherbrooke W. (Athletics Gym)
PS 7141 Sherbrooke W. (Physical Services Building)
PT 7141 Sherbrooke W. (Oscar Peterson Concert Hall)
PY 7141 Sherbrooke W (Psychology Building)
RA 7300 Sherbrooke W.
RB 7302 Sherbrooke W.
RF 7141 Sherbrooke W. (Refectory Building)
RH 7312 Sherbrooke W.

SC 7141 Sherbrooke W. (Campus Centre)
SP 7141 Sherbrooke W. (Science Complex)
TA 7079 Terrebonne
TJ 7315 Terrebonne
VE 7141 Sherbrooke W. (Vanier Extension)
VL 7141 Sherbrooke W. (Vanier Library)
WC 2490 West Broadway
WD 2492 West Broadway
WE 2494 West Broadway
WF 2496 West Broadway
WG 2480 West Broadway


## Sir George Williams Campus - (H3G 1M8)

| B | 2160 Bishop |
| :--- | :--- |
| BC | 1463 Bishop |
|  | (Bishop Court Administration) |
| BE | 1257 Guy |
| CB | 1425 René-Lévesque Blvd W. |
| CI | 2149 Mackay |
| CL | 1665 Ste. Catherine St. W. |
| CR | 6277 St. Jacques W. |
|  | (CONCAVE Research Centre) |
| D | 2140 Bishop |
| EN | 2070 Mackay |
| ER | 2155 Guy |
| F | 2085 Bishop |
| FA | 2060 Mackay |
| FB | 1250 Guy (Faubourg Tower) |
| FG | 1616 Ste. Catherine St. W. |

B 2160 Bishop
1463 Bishop
(Bishop Court Administration)
BE 1257 Guy
CB 1425 René-Lévesque Blvd W.
2149 Mackay
CL 1665 Ste. Catherine St. W
R 6277 St. Jacques W.
(CONCAVE Research Centre)
D 2140 Bishop
EN 2070 Mackay
R 2155 Guy
FA 2060 Map
FB 1250 Guy (Faubourg Tower)
FG 1616 Ste. Catherine St. W.

FS 1438 Overdale
GM 1550 de Maisonneuve Blvd W.
GY 1822 de Maisonneuve Blvd W. (Victoria School Gym)
H 1455 de Maisonneuve Blvd W. (Hall Building)
K 2150 Bishop
LB 1400 de Maisonneuve Blvd W. (J.W. McConnellWebster Library)

LS 2015 Drummond (Classrooms)
M 2135 Mackay
MF 1230 de la Montagne (Académie Bourget)
MI 2130 Bishop

MU 2170 Bishop
OS 1191 de la Montagne
P 2020 Mackay
PR 2100 Mackay
Q 2010 Mackay
R 2050 Mackay
RR 2040 Mackay
S 2145 Mackay
SB 1590 Docteur Penfield
T 2030 Mackay
V 2110 Mackay
VA 1395 René-Lévesque Blvd W. (Visual Arts Building)
X 2080 Mackay
Z 2090 Mackay

# gender neutral degree nomenclature 

In February 1992, Concordia University adopted a policy on degree nomenclature that seeks to provide students with the opportunity to graduate with gender neutral degree titles.
This policy stipulates that students are entitled to receive their degrees in either the traditional or new degree nomenclature. The new names for degrees are: Baccalaureate, Magisteriate, and Doctorate. The traditional nomenclature is: Bachelor, Master, and Doctor.

As of June 1994, students may choose to graduate with degree titles that are gender neutral and refer to the diplomas themselves. Graduates who have previously been awarded a Concordia degree will be able to request that their degree be re-issued in the new nomenclature.

## Academic calendar

## ACADEMIC CALENDAR

The Academic Calendar is subject to change. Updated information will be available from the Birks Student Service Centre. For dates pertaining to registration and non-standard Summer Terms, please consult the 2003-04 Undergraduate Class Schedule or the Birks Student Service Centre. For financial deadlines see §15.
Concordia University recognizes and respects the religious beliefs, observances and obligations of all faiths. For the information of instructors planning assignment deadlines, class tests, etc., and for persons scheduling meetings, the dates of Holy Days of major religions are available at the Birks Student Service Centre.
Deadlines falling on weekends* or holidays will be extended to the next working day.
*Except for academic withdrawal deadlines.

Regular Session 2003-04 and Summer Session 2003

2003

| MARCH | Saturday, March 1 | Last day for application to undergraduate programs - Full-time Regular Session 2003-04. |
| :---: | :---: | :---: |
|  | Friday, March 7 | University Writing Test. |
|  | Monday, March 10 | Last day for academic withdrawal from two-term and winter-term courses. |
| APRIL | Saturday, April 5 | Last day for instructor-scheduled tests or examinations. |
|  | Saturday, April 12 | Last day of classes - Regular Session 2002-03. |
|  | Monday, April 14 | Examinations begin. |
|  | Friday, April 18 | University closed. |
|  | Saturday, April 19 | University closed. |
|  | Monday, April 21 | University closed. |
| MAY | Wednesday, May 7 | Examinations end. |
|  | Thursday, May 8 | Two-term and first-term Summer Session begins. |
|  | Friday, May 9 | University Writing Test. |
|  | Thursday, May 15 | Last day to apply for late completion of courses ending in April 2003. |
|  | Thursday, May 15 | Last day to apply for DEF (Deferred) or MED (Medical) notation for courses ending in April 2003. |
|  | Monday, May 19 | Victoria Day - University closed. |
|  | Friday, May 30 | Last day for submission of late-completion work for courses ending in April 2003 (application deadline May 15). |
| JUNE |  | Spring Convocations: |
|  | Thursday, June 12 | Faculty of Arts and Science |
|  | Thursday, June 12 | Faculty of Engineering and Computer Science |
|  | Friday, June 13 | John Molson School of Business |
|  | Friday, June 13 | Faculty of Fine Arts. |


|  | Sunday, June 15 | Last day to apply for supplemental examinations for courses taken during the Regular Session 2002-03. |
| :---: | :---: | :---: |
|  | Sunday, June 15 | Last day to apply for re-evaluation of courses ending in April 2003. |
|  | Tuesday, June 24 | Fête Nationale - University closed. |
|  | Wednesday, June 25 | Last day of classes - First-term Summer Session. |
|  | Thursday, June 26 | Mid-term break for two-term Summer Session begins. |
|  | Thursday, June 26 | Examinations begin - First-term Summer Session finals. |
| JULY | Tuesday, July 1 | Canada Day - University closed. |
|  | Thursday, July 3 | Examinations end - First-term Summer Session finals. |
|  | Friday, July 4 | Mid-term break for two-term Summer Session ends. |
|  | Monday, July 7 | Classes begin - Second-term Summer Session. |
|  | Monday, July 7 | Special Six-Week Summer Session begins. |
|  | Tuesday, July 15 | Last day to apply for degrees, diplomas and certificates for Fall 2003 graduation. |
| AUGUST | Friday, August 15 | Special Six-Week Summer Session ends. |
|  | Tuesday, August 19 | Last day of classes for two-term and second-term Summer Session. |
|  | Wednesday, August 20 | Examinations begin - Two-term and second-term Summer Session finals. |
|  | Tuesday, August 26 | Examinations end - Two-term and second-term Summer Session finals. |
|  | Wednesday, August 27 | Replacement and supplemental examinations begin - Regular Session 2002-03. |
|  | Saturday, August 30 | Replacement and supplemental examinations end - Regular Session 2002-03. |
|  | Sunday, August 31 | Last day to apply for DEF (Deferred) or MED (Medical) notation for courses taken during the Summer Session 2003. |
| SEPTEMBER | Monday, September 1 | Last day to apply for late completion of courses taken during the Summer Session 2003. |
|  | Monday, September 1 | Labour Day - University closed. |
|  | Tuesday, September 2 | Classes begin - Day and Evening Regular Session. |
|  | Wednesday, September 10 | Last day to add two-term and fall-term courses. |
|  | Monday, September 15 | Last day for submission of late-completion work for Summer Session 2003 courses (application deadline September 1). |
|  | Tuesday, September 16 | Last day to apply for supplemental examinations for courses taken during the Summer Session 2003. |
|  | Tuesday, September 16 | Deadline for withdrawal with tuition refund from two-term and fall-term courses. |
| OCTOBER | Wednesday, October 1 | Last day to apply for re-evaluation of courses taken during the Summer Session 2003. |
|  | Friday, October 3 | University Writing Test. |


|  | Saturday, October 4 | Replacement and supplemental examinations for Summer Session 2003 courses. |
| :---: | :---: | :---: |
|  | Monday, October 13 | Thanksgiving Day - University closed (see December 2, 2003). |
|  | Monday, October 27 | Last day for academic withdrawal from fall-term courses. |
| NOVEMBER | T.B.A. | Fall Convocation. |
|  | Saturday, November 1 | Last day for application to undergraduate programs - Winter Term 2004. |
|  | Sunday, November 23 | University Writing Test. |
|  | Monday, November 24 | Last day for instructor-scheduled tests or examinations. |
| DECEMBER | Monday, December 1 | Last day of classes - Fall Term. |
|  | Tuesday, December 2 | Make-up day for classes scheduled on Monday, October 13 Instructors must contact Scheduling Office to book a classroom. |
|  | Thursday, December 4 | Examinations begin. |
|  | Sunday, December 21 | Examinations end. |
|  | 2004 |  |
| JANUARY | Monday, January 5 | Classes begin - Day and Evening Winter Term. |
|  | Tuesday, January 13 | Last day to add winter-term courses. |
|  | Thursday, January 15 | Last day to apply for degrees, diplomas and certificates for Spring 2004 graduation. |
|  | Thursday, January 15 | Last day to apply for DEF (Deferred) or MED (Medical) notation for courses ending in December 2003. |
|  | Friday, January 16 | University Writing Test. |
|  | Monday, January 19 | Deadline for withdrawal with tuition refund from winter-term courses. |
| FEBRUARY | Sunday, February 1 | Last day to apply for supplemental examinations for courses ending in December 2003 (graduating students only). |
|  | Sunday, February 1 | Last day to apply for re-evaluation of courses ending in December 2003. |
|  | Sunday, February 1 | Last day to apply for late completion of courses ending in December 2003. |
|  | Sunday, February 15 | Last day for submission of late-completion work for courses ending in December 2003 (application deadline February 1). |
|  | Monday, February 23 | Mid-term break begins. |
|  | Monday, February 23 | Replacement examinations begin. |
|  | Monday, February 23 | Supplemental examinations begin for courses ending in December 2003 (graduating students only). |
|  | Thursday, February 26 | Replacement and supplemental examinations end. |
|  | Friday, February 27 | Rector's Holiday - University closed. |
|  | Sunday, February 29 | Mid-term break ends. |


| MARCH | Monday, March 1 | Last day for application to undergraduate programs - Full-time Regular Session 2004-05. |
| :---: | :---: | :---: |
|  | Friday, March 5 | University Writing Test. |
|  | Monday, March 8 | Last day for academic withdrawal from two-term and winter-term courses. |
| APRIL | Thursday, April 1 | Last day for instructor-scheduled tests or examinations. |
|  | Thursday, April 8 | Last day of classes - Regular Session 2003-04. |
|  | Friday, April 9 | University closed. |
|  | Saturday, April 10 | University closed. |
|  | Monday, April 12 | University closed. |
|  | Tuesday, April 13 | Make-up day for classes scheduled on April 9 and 10 - Instructors must contact Scheduling Office to book a classroom. |
|  | Wednesday, April 14 | Make-up day for classes scheduled on April 9 and 10 - Instructors must contact Scheduling Office to book a classroom. |
|  | Thursday, April 15 | Examinations begin. |
| MAY | Sunday, May 2 | Examinations end. |
|  | Friday, May 7 | University Writing Test. |
|  | Saturday, May 15 | Last day to apply for late completion of courses ending in April 2004. |
|  | Saturday, May 15 | Last day to apply for DEF (Deferred) or MED (Medical) notation for courses ending in April 2004. |
|  | Sunday, May 30 | Last day for submission of late-completion work for courses ending in April 2004 (application deadline May 15). |
| JUNE | T.B.A. | Spring Convocations. |
|  | Tuesday, June 15 | Last day to apply for supplemental examinations for courses taken during the Regular Session 2003-04. |
|  | Tuesday, June 15 | Last day to apply for re-evaluation of courses ending in April 2004. |

The following information was updated as of October 1, 2002.

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## Admission regulations

### 13.1 ADMISSION TO CONCORDIA UNIVERSITY

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### 13.1 ADMISSION TO CONCORDIA UNIVERSITY

The University gives fair consideration to all applicants and informs them of its decisions and the basis for such decisions within a reasonable period of time. Concordia has a long tradition of service to adult and part-time students. Basic information on admission requirements and procedures is included in this Calendar. More detailed information can be found in the Admissions Guide and at the Concordia Web Site.
In keeping with general principles accepted by Québec universities, admission to Concordia University is open to qualified applicants in the program of their choice. In programs with limited enrolments, not all qualified applicants can be accepted. In such cases, the University accepts those with the strongest qualifications and demonstrable potential. Qualified applicants not admitted to their preferred program are immediately considered for their second-choice program.
The University maintains a Student Service Centre on the Sir George Williams Campus where application forms as well as information about requirements and procedures are available.
There is a single processing centre to which all applications and supporting documents should be mailed:

Concordia University
Admissions Application Centre
P.O. Box 2900

Montréal, Québec
H3G 2S2
It is also possible to submit an application through the Concordia Web Site: http://www.concordia.ca

### 13.2 DEFINITIONS

## The Academic Year

The Academic Year begins with a Summer Session (May to August) followed by a Regular Session (September to April). The Summer Session includes all courses offered between the beginning of May and the end of August. The Regular Session is divided into a Fall Term (September-December) and a Winter Term (January-April), each 15 weeks long. Terms include an examination period, during which any final examination must be held. The Academic Calendar $\S 11$ lists precise dates for the beginning and end of classes and examination periods.

## Exemption

A student may be exempted from a Concordia course based on previous study or a challenge exam. An exemption from a course has no credit value towards a degree. Exemptions from required
courses may be granted in cases where students have already covered the work at any institution with an appropriate level of performance. Any such courses may be replaced with courses chosen in consultation with their advisers.

## Extended Credit Program Students

Students registered in an extended program, normally requiring 30 credits in addition to the regular requirements, designed for students entering from secondary institutions outside Québec. (See relevant Faculty section)

## Independent Students

Students not seeking a degree or Certificate.

## Mature Students

Undergraduate students who do not meet regular academic admission requirements and have been admitted on the basis of their age, experience, and potential.

## Pro-Tanto Credits

Pro-tanto credits are credits for courses taken at another institution (or in another Concordia program) which may be transferred towards a Concordia degree.

## Residence Requirement

The minimum number of credits which must be taken at Concordia University to obtain a degree or Certificate awarded by the University.

## Undergraduate Students

Students registered in an undergraduate degree or Certificate program, whether on a full-time or part-time basis. See §16.1.2 for a definition of full-time and part-time study.

## Visiting Students

Undergraduate students from other universities who have written approval from their home university to take courses at Concordia University, or students currently registered in certain Certificate programs sponsored by external associations (e.g. programs related to the John Molson School of Business).

### 13.3 ADMISSION REQUIREMENTS

13.3.1

Applicants from Québec Institutions

Québec applicants must have successfully completed a two-year pre-university program in a cégep and qualify for a Diploma of Collegial Studies (DEC) or the equivalent. Applicants who have completed a three-year professional program in a cégep or have obtained a French or International Baccalaureate are also eligible for consideration.
Cégep records of applicants must include the successfully completed prerequisites of the Concordia degree program for which they are applying. These programs and admission requirements "profiles" are listed in:

- The Department of Education booklet "Accueil - Structures d'accueil aux études universitaires de premier cycle",
- The programs and admission requirements listed under each Faculty section,
- The Admissions Guide,
- The Concordia Web Site.

Students admitted to a particular program at the University and who subsequently wish to change to another program may have to complete specific prerequisites in addition to their regular program requirements.

Graduates of secondary schools in Canadian provinces and territories other than Québec are considered for admission to the Extended Credit Program (ECP) at Concordia. The ECP requires completion of 30 credits in addition to the regular requirements. The duration of a degree program is normally four years. The BEng degree, the BA, Early Childhood and Elementary Education Program, the BEd, TESL and the BFA, Art Education will generally require five years of full-time study to complete.
To be considered for admission, students must have a minimum overall average of $65 \%$ in academic subjects taken in the final year of secondary school, and should have senior high school course credits appropriate to the degree program for which they are applying. Higher averages may be required for admission to certain programs in which the demand for places by qualified applicants exceeds the number of places available.

Students completing the following levels of education may be considered for entry to the Extended Credit Program.

## Ontario

Applicants from Ontario must present the Ontario Secondary School Diploma (OSSD) with a minimum overall average of $65 \%$ in six appropriate Ontario Academic Courses (OACs).
Students entering programs in either the Faculty of Arts and Science or the Faculty of Fine Arts are awarded six credits each (to a maximum of 30 credits) for OAC courses in the humanities or social sciences (as defined by Concordia University) completed with grades of $70 \%$ or over. The policy regarding the awarding of credits is subject to review on an annual basis.
Applicants from Ontario completing the new curriculum must present the Secondary School Diploma with six Grade 12 U or $\mathrm{U} / \mathrm{C}$ courses, of which a minimum of four, including English, must be Grade 12 U courses (or French if graduated from French school). The minimum average for eligibility to the University is $65 \%$, but may be higher for certain programs/faculties.

## Other Provinces

Applicants from all other provinces and territories must have successfully completed Grade 12.
13.3.3

Transfers from Other Universities

### 13.3.4

Transfers from Other
Post-Secondary
Institutions

### 13.3.5

Pro-Tanto Credits and Exemptions
13.3.6

Applicants from
Outside Canada
13.3.7

Former Concordia
Students

Each transfer application is considered on its merits. The number of transfer credits granted depends on the character, quality, and quantity of the work completed at the accredited institution. In allowing transfer credits, some special conditions apply:

1. Students will not be given credit for courses taken in another university during the same academic term in which they have registered for courses at Concordia University, unless special permission has been obtained in advance from this University. The Office of the Registrar should be contacted for information on the correct procedure.
2. To earn an undergraduate degree, students must take a minimum of 45 credits at Concordia University. These should be the last 45 credits. The BEng, the BA (Early Childhood and Elementary Education), the BEd (TESL), and the BFA (Art Education) require 60 credits at Concordia.
3. Students transferring to Concordia after having failed to achieve a satisfactory record at any university must take a minimum of 60 additional credits at Concordia.
4. At least $50 \%$ of the degree credits for Honours, Specializations, Majors, Options, or Minors must be taken at Concordia. Individual Faculties determine the precise proportion.
5. Students who already have an undergraduate degree may undertake a second undergraduate degree, subject to the conditions below. (Before registering, such students should consider whether their purpose might be better served by taking a graduate degree, diploma, or certificate program.) To obtain a second undergraduate degree, students must:
a) register in a program with a higher concentration than a Minor, and
b) complete at least two-thirds of the credits normally required for the second degree in courses other than those credited to the first degree - for example, a minimum of 60 credits must be completed when the normal requirement is 90 credits, and
c) complete at least 36 credits in the new field of concentration.

Further detailed information is available in $\S 16.1 .3$ and $\S 16.1 .7$ of this Calendar.

Each transfer application is considered on its merits. Credits from junior colleges, community colleges, or colleges of applied arts and technology outside Québec will, in general, be given the same recognition towards undergraduate programs as they receive in their respective provinces.

Pro-tanto credits are credits for courses taken at another institution (or in another Concordia program) which may be transferred towards a Concordia degree. The Office of the Registrar, in consultation with the four Faculties, assesses all requests for pro-tanto credits.
An exemption from a course has no credit value towards a degree. Exemptions from required courses may be granted in cases where students have already covered the work at any institution, with an appropriate level of performance. Any such courses must be replaced with courses chosen in consultation with their advisers.

In general, candidates who have completed the level of education required for admission to university in their home country and have achieved good grades are eligible to apply for admission. Further information regarding international admission requirements is available in $\S 19$.

Former Concordia students who have been absent from Concordia may be required to submit a new application for admission. Students are advised to contact the Office of the Registrar for information on the correct procedure. Normally,

- Students who, during their absence from Concordia, attended another institution and attempted at least 12 credits, must submit a new application and make arrangements to have an official
transcript sent to the Office of the Registrar. Advanced standing will be assessed as part of the admissions process. If fewer than 12 credits have been attempted or if attendance at another institution was based exclusively on a letter of prior approval from the Faculty Student Request Committee, a new application would normally not be required. Students may, however, be eligible for transfer credits for the work completed during their absence.
- Students who officially withdrew from Concordia University and who wish to return to study must submit a new application. If they have attended another institution during their absence, they must also make arrangements to have an official transcript sent to the Office of the Registrar. Advanced standing will be assessed as part of the admissions process.
- Students in the John Molson School of Business who have a lapse in their program of study for six consecutive terms or more will not be allowed to continue in their program before meeting with an academic adviser.
- Students in the Faculty of Engineering and Computer Science who have been absent from their program for six consecutive terms or more will be officially withdrawn from their program by the Faculty and must submit a new application for admission through the Office of the Registrar.
The Office of the Registrar, in consultation with the four Faculties, assesses all requests for pro-tanto credits. Further detailed information is available in $\S 13.3 .3, ~ § 16.1 .3$ and $\S 16.1 .7$ of this Calendar.


### 13.4 LANGUAGE PROFICIENCY

While the language of instruction at Concordia is English, most assignments and examinations may be submitted in French. Students whose first language is neither French nor English must demonstrate language proficiency prior to their admission to Concordia. They will ordinarily be exempt from preadmission English tests if they meet one of the following criteria:

1. They hold a Québec Diploma of Collegial Studies (or its equivalent from an English-language school system).
2. They have obtained a grade of "C" or better in the GCSE English language examination.
3. They have studied for at least three years in an educational institution where the sole language of instruction is English.
If none of these criteria fits, a student whose first language is other than English must write a required English test (see §16.2.4). Only when the Office of the Registrar has received the test results is the student's application to Concordia considered complete.
In all cases, the Office of the Registrar reserves the right to require a proficiency test if it is deemed necessary.

### 13.5 APPLYING FOR ADMISSION

Application forms are available from the Office of the Registrar. Students may also submit an application through the Concordia Web Site, http://www.concordia.ca. Students should apply for admission as early as possible to allow sufficient time for the evaluation of their applications. This is especially true for applicants from outside Canada. Supporting documents must be submitted at the time of application or as soon afterwards as they become available.
Applicants must state their full academic history on their application for admission or risk cancellation of their acceptance or registration. No transfer credit will be awarded retroactively for former studies not reported in the application.
13.5.1

Application Fee
13.5.2

Deadlines

There is a $\$ 50$ (Canadian) application fee required with every application, payable to Concordia University by certified cheque, money order, MasterCard, Visa, or debit card (Interac). Applicants from outside Canada may pay this fee by international money order or draft drawn on a Canadian bank in Canadian funds.
This application fee is not refundable under any circumstances, nor can it be used towards tuition. It is not transferable to a session other than that for which the student is applying.

September is the normal point of entry to full-time and part-time studies. Entry in January or in the Summer Session is limited to certain programs. Students should refer to the admissions information within the relevant Faculty section, in the Admissions Guide, or on the Concordia Web Site.

## Full-Time

March 1 and November 1 are the application deadline dates normally set for the Fall and Winter terms respectively. However, candidates are encouraged to submit their applications well before the start of term to allow sufficient time for evaluation and notification. Candidates applying from outside of Canada should submit their applications by February 1.

## Part-Time

The deadlines for applying for Fall and Winter terms are July 15 and November 1 respectively. However, candidates are encouraged to submit their applications well before the start of term to allow sufficient time for evaluation and notification.
Note: Part-time applicants to the Faculty of Fine Arts should apply before March 1.
Further information can be obtained from the Office of the Registrar.

| 13.5.3 | While the normal entry period for International Students from outside Canada is September, the |
| :--- | :--- |
| International Appli- | Faculty of Arts and Science, the John Molson School of Business, and the Faculty of Engineering |
| cants to Arts and | and Computer Science also consider them for January admission. They have implemented a rolling |
| Science, John Molson | international admissions process whereby a student whose application becomes complete too late to |
| be considered for a given session will automatically be considered for the next entry date. |  |
| School of Business, | NOTE: Visa arrangements can take up to three months after the acceptance letter has been issued to |
| and Engineering and | a student. For this reason, students wishing to be considered for January admission are recommended <br> Computer Science <br> to submit their applications many months in advance. |

### 13.6 SPECIAL ADMISSIONS

Mature students are undergraduates who have not met the regular academic admission requirements
13.6.1

Mature Students
13.6.2

Visiting Students
13.6.3

Independent Students (e.g. completion of a DEC or equivalent), but have been admitted on the basis of age, experience, and potential. Mature students may study full-time or part-time. Information on Mature Entry is contained in $\S 14$.

Visiting students are undergraduate students from other universities who have written approval from their home university to take courses at Concordia University, or they are students currently registered in certain Certificate programs sponsored by external associations. These students may apply for Visiting student status by contacting the Birks Student Service Centre. The granting of such status in no way guarantees a student a place in a course.

1. Undergraduate students from other Québec universities who wish to take courses at Concordia must present the Inter-University Exchange form duly authorized by the home university. (Please note that this paper form will be replaced by a Web-based Inter-University Exchange authorization procedure in the near future.) Additional information is available in §16.1.7.
2. Undergraduate students from other universities outside the province of Québec who wish to take courses at Concordia must submit a letter of permission from the registrar of their home university and Canadian citizenship/permanent residency documents or Québec Certificate of Acceptance (CAQ) and/or student visa. Visiting students who are Canadians or Permanent Residents may be eligible to pay Québec rates of tuition upon submission of proof of Québec residency in accordance with government criteria (see §13.7).
3. Students who wish to register in Certificate programs sponsored by external associations must submit proof of membership in the association and citizenship documents. Visiting students who are Canadians or Permanent Residents may be eligible to pay Québec rates of tuition upon submission of proof of Québec residency in accordance with government criteria (see §13.7).

Concordia University allows individuals who are not seeking a degree or Certificate to register as Independent students, if they satisfy admission requirements. Independent students may register for a maximum of 18 credits a year, equally divided between Fall and Winter terms. They register for courses once all undergraduate students have selected their schedules; their Independent status in no way guarantees them a place in a given course.
There are two categories of Independent student:

1. those who meet regular admission requirements.
2. those who meet Mature Entry requirements (see §14.3), and satisfy the University that they have the right background for the course(s) for which they wish to register.
Note: Independent students must satisfy the University that they have completed prerequisite courses where required.
Applicants for Independent status should contact the Office of the Registrar. They will be required to submit evidence of having met University entrance requirements. Independent students who are Canadians or Permanent Residents may be eligible to pay Québec rates of tuition upon submission of proof of Québec residency in accordance with government criteria (see §13.7). Independent students who subsequently wish to enter a degree or Certificate program must make a formal application to the Office of the Registrar. Credits acquired by Independent students may subsequently be applied towards a degree or Certificate program, if appropriate. In the case of the Faculty of Arts and Science, an Independent student may be granted a maximum of 30 credits towards a degree.

### 13.7 REQUIRED DOCUMENTS

## Citizenship or Permanent Residency Documents

Canadian Citizens and Permanent Residents (Landed Immigrants) must present proof of their status in Canada. Students who have not provided such evidence are automatically charged international tuition fees. To prove Canadian citizenship or Permanent Resident status, applicants must supply the Office of the Registrar with an original or a legally certified photocopy of one of the following documents:

Canadian birth certificate;
Canadian baptismal certificate (showing place of birth in Canada);
Canadian citizenship or Permanent Resident Card/(IMM-1000) papers.
The following documents are not acceptable:
Driver's licence;
Medicare or health insurance card;
Social Insurance Number card.

## Proof of Québec Residency (Applicable to Canadian Citizens and Permanent Residents)

The University will endeavour to establish Québec Residency status for applicants from Québec cégeps by importing province of residence data electronically from government files based on their "permanent code".
Other Canadian Citizens and Permanent Residents (Landed Immigrants) must present proof of Québec residency. Students who have not provided such evidence are automatically charged non-Québec resident fees.
To prove Québec residency, applicants must supply the Office of the Registrar with an original or legally certified photocopy of one of the following documents:

- An "authentic" birth certificate issued by the Government of Québec (regardless of place of birth), which does not contain the notation "Émis en vertu de l'article 137 du Code Civil";
- A "semi-authentic" birth certificate issued by the Government of Québec (regardless of place of birth) before January 1, 1994, which contains the notation "Emis en vertu de l'article 137 du Code Civil";
- A baptismal certificate issued by a Québec parish before January 1, 1994, regardless of place of birth;
- A current Canadian passport on which the place of birth is clearly listed as being in Québec;
- A Certificat de sélection du Québec (CSQ) or an official letter from le ministère des Communautés culturelles et de l'immigration du Québec attesting that the student is the holder of a CSQ;
- A loan certificate issued by l'Aide financière aux études du ministère de l'Éducation du Québec for the current year.

In addition, the student may fit into one of a number of other approved government categories. The student must submit a signed attestation to the University, on the approved government form, with accompanying documentation that is described on the form.
Among the categories recognized by the Government are:

- A student adopted by a person with residency status in Québec at the time of the adoption;
- A student, one of whose parents resides in Québec;
- A student who has resided in Québec for at least 12 months before becoming a full-time student;
- A student who came to Canada as a Permanent Resident without a Certificat de sélection du Québec (CSQ) but has resided in Québec for at least three months without having lived elsewhere for more than three months since landing in Canada;
- A student whose spouse qualifies under these criteria as a Québec Resident.

If, upon acceptance to a regular University program, proof of Québec residency has not been established, the Office of the Registrar will mail students a blank government form, Attestation of Residency in Québec. Visiting and Independent students will be provided with a form at the time they apply for Visiting or Independent status at the Birks Student Service Centre.

## Academic Documents

Applicants must submit all secondary and post-secondary academic records. They must ensure that an official transcript is forwarded directly to the Admissions Application Centre by all the institutions which they have attended. (Applications will not be considered until an official transcript from EACH institution has been received. These are required even where the student may have earned no credit.)
With their application, students currently enrolled at an institution must include results from all previous terms together with a list of courses in progress. They must arrange for an official transcript with the results of the final semester to be forwarded as soon as possible. All documents must be originals or
appropriately certified copies. Uncertified copies are not acceptable; neither are records transmitted by fax. Transcripts in a language other than English or French must be accompanied by a notarized translation. If the transcript does not detail the subjects and the grades, a certified statement of these from an authorized official of the institution should also be included.
The above procedure whereby institutions send official transcripts directly to Concordia University is the normal method for receipt of official transcripts. However, in order to accelerate the review of their file, students may submit official transcripts in sealed envelopes along with their application, subject to the following procedures: applicants are to request each previous educational institution to provide them with a copy of their official transcript, sealed in an envelope which bears the name and address of the school, the institutional logo (if applicable), a notice on the envelope stating that it contains official transcripts, and a signature/signature stamp/explanatory label placed across the seal of the envelope. The sealed-envelope transcript method may be used only for transcripts issued by institutions in North America.
13.7.2

Permanent Code

The Québec Ministry of Education (MEQ) requires all registered students to have a "permanent code" (a unique identifying number) which is assigned by the Ministry. Students who already have a permanent code must enter it on their application form.
Students who do not provide a valid code with their application will be sent a permanent code data form with their letter of acceptance. This form must be completed and returned with appropriate documentation so that the MEQ can create a permanent code.
For students who have attended or are currently attending cégep in Québec, Concordia University will automatically obtain the required cégep record electronically from CREPUQ (Conférence des recteurs et des principaux des universités du Québec) by using their permanent code.

### 13.8 SELECTION PROCESS AND NOTIFICATION

13.8.1

ConditionalAdmission

Applicants seeking admission to undergraduate programs may be granted conditional acceptance on the basis of available academic records, including interim results for the current year. Final admission is contingent upon a student's successfully completing all the academic admission requirements and meeting all conditions as stated in the letter of conditional acceptance issued by the Office of the Registrar.

Applicants who have been granted admission or conditional admission to full-time studies or to certain part-time programs must submit a cheque or money order for $\$ 50$ (Canadian) to confirm their intention to enter the University. This non-refundable admission deposit is applied towards tuition fees.
Applicants who receive conditional acceptance, but who are ultimately denied admission because they have not completed the minimum academic requirements for entrance, will receive a refund of their admission deposit.
13.8.3

Registration

Complete information regarding registration is sent to all students with the letter of acceptance.

## Mature entry

14.1 GENERAL INFORMATION
14.2 CENTRE FOR MATURE STUDENTS
14.3 ADMISSION AS A MATURE STUDENT
14.4 PROGRAM REQUIREMENTS
14.4.1 Faculty of Arts and Science
14.4.2 John Molson School of Business
14.4.3 Faculty of Engineering and Computer Science
14.4.4 Faculty of Fine Arts
14.5 PROGRAMS OF STUDY FOR SENIOR STUDENTS
14.5.1 Senior Scholarships

Director
ROBERT J. OPPENHEIMER
Mature Student Advisers
BRIGEEN BADOUR
STEVE CLARK
ANNE MARIE FERRARI
NELLY TRAKAS
Senior Students Program Coordinator
SYLVIA DE NIVERVILLE
Fellows
BRYAN BARBIERI, Associate Professor, Marketing
PAMELA BRIGHT, Associate Professor, Theological Studies
M. GRAEME DECARIE, Associate Professor, History
JOEL HILLEL, Professor, Mathematics and Statistics
LYNN HUGHES, Associate Professor, Studio Arts
JAMES E. JANS, Associate Dean, Graduate Studies
CORINNE JETTE, Professor, Engineering and Computer Science
BLUMA LITNER, Associate Professor, Applied Human Sciences
JOHN MILLER, Assistant Professor, English
THOMAS O'CONNELL, Lecturer, Management
DAN OTCHERE, Associate Professor, Economics ENN RAUDSEPP, Associate Professor, Journalism
WILLIAM R. SELLERS, Associate Professor, Exercise Science
FRANCES SHAVER, Vice-Dean, Arts and Science
RANDY B. SWEDBURG, Associate Professor, Applied Human Sciences

PATRICIA A. THORNTON, Associate
Professor, Geography
REETA C. TREMBLAY, Associate Professor, Political Science

Associate Fellows
LEO BISSONNETTE, Coordinator, Office for Students with Disabilities
PERRY CALCE, Assistant to Principal/ Internship Coordinator, School of Community and Public Affairs
DONALD CHAMBERS, Enrolment Manager, Arts and Science
ROGER CÔTÉ, Director, Financial Aid and Awards
ASSUNTA FARGNOLI, Assistant Registrar, Office of the Registrar
RIVA HEFT, Director, Adult Education ANN KERBY, Director, Advocacy and Support Services
PERLA MUYAL, Academic Adviser, Fine Arts MARY O'MALLEY, Learning and Study Skills Specialist, Counselling and Development NANNETTE PLANT, Manager, Student Affairs, Engineering and Computer Science PETER REGIMBALD, Assistant Registrar, Office of the Registrar OLIVIA ROVINESCU, Director, Teaching and Learning Services
MONIR WAHHAB, Academic Adviser, John Molson School of Business TERESA ZUCCARO, Admissions Counsellor, Office of the Registrar

Lifetime Honorary Fellow
MARY A. BRIAN, Adjunct Professor, Mathematics and Statistics

To advise and assist both prospective and enrolled students, Concordia maintains a Centre for Mature Students with facilities on both campuses.
J.W. McConnell Building, Room: LB 517

1400 de Maisonneuve Boulevard W. (514) 848-3890

Hours:
During Fall/Winter semesters
Monday to Friday
9:00 AM to 5:00 PM

Administration Building, Room: AD 420
7141 Sherbrooke Street W.
(514) 848-3895

Hours:
During Fall/Winter semesters
Monday to Friday
8:30 AM to 4:30 PM

Evening hours: by appointment.

### 14.1 GENERAL INFORMATION

Concordia University has a long history of making education accessible to men and women of all ages and academic backgrounds. Through mature entry, those lacking the regular pre-university requirements can still earn university degrees and certificates. Concordia also offers an audit program which allows people 55 years of age or over to participate in courses on a non-credit basis.

At Concordia, we use the term "mature entrants" to designate students 21 or over who have not completed the normal academic admission requirements. The designation does not apply to adult applicants whose academic background qualifies them for regular admission.
In applying to Concordia, students apply for admission to particular programs within one of the four Faculties of the University. In every respect, mature entrants at Concordia are treated as regular undergraduates and are expected to meet the same standards before graduating.
Normally, mature entrants without any cégep or equivalent must complete at least 18 additional credits of preparatory or complementary courses. These additional credits are intended to help mature entrants to prepare for their subsequent studies. Students with partial cégep or equivalent may be given advanced standing for some of the additional 18 credits.

### 14.2 CENTRE FOR MATURE STUDENTS

The primary aim of the Centre for Mature Students is to provide services for mature entry students returning to formal studies after an absence of some years.
Advisers on staff are qualified to help guide students with course selections or with problems of an academic or administrative nature. The work of the advisers at the Centre is supported and enhanced by the contributions of the Centre's Fellows.
The Fellows are Concordia University faculty members especially interested in the challenges encountered by adults working towards a degree. They are available at certain times to offer advice and information on both elective and required courses in their areas of specialty. Associate Fellows of the Centre, who are generally University staff members, are available to students and advisers for consultation on a variety of concerns such as entry requirements, administrative procedures, and study skills. It is the goal of everyone involved in the work of the Centre to try to provide mature students with a sense of belonging and help them gain the self-confidence necessary for successful university work.

### 14.3 ADMISSION AS A MATURE STUDENT

The admission of applicants for mature entry is subject to the following conditions:

1. Applicants must have reached the age of 21 by August 1 for the September term, December 1 for the January term, or April 1 for the May term in any given year;
2. Although not meeting the normal academic requirements for admission (Québec Diplôme d'études collégiales or the equivalent), applicants must satisfy the University that they have the potential to undertake undergraduate courses; those who have the Québec Diplôme d'études collégiales or the equivalent should contact the Office of the Registrar regarding their admission;
3. Applicants must have been out of school - that is not engaged in full-time study - for at least 24 months since attaining the age of 18 . Applicants who have been out of school for only 12 months are also admissible provided that they have had no unfavourable academic record in the previous 24 months;
4. Applicants must be Canadian Citizens or Permanent Residents (Landed Immigrants). Applicants must submit proof of citizenship and age, together with school records and any material which may indicate ability to pursue university studies. Applicants are expected to arrange for official transcripts of all of their previous studies to be sent directly to Concordia; ( $\$ 13$ provides general information on how to apply for admission.)
5. In all programs, some students may require courses in English as a Second Language, as determined by Language Proficiency Testing. See $\S 13.4$ of this Calendar regarding Language Proficiency Testing.

### 14.4 PROGRAM REQUIREMENTS

In selecting courses to fulfil the 18-credit requirement, mature students in the Faculty of Arts and Science must consult with advisers at the Centre for Mature Students. Once students have completed these preliminary courses, they select courses in consultation with advisers in their program rather than at the Centre.
Mature students accepted into the Faculties of Engineering and Computer Science, Fine Arts, or the John Molson School of Business consult directly with their Faculty in selecting courses to fulfil both the 18 -credit requirement and subsequent requirements.
14.4.1

Faculty of Arts and Science

## Arts

NOTE: Mature students wishing to apply to Early Childhood and Elementary Education or BEd (TESL) must complete 18 credits prior to applying for entry.
For most BA programs there are no specific program prerequisites. Therefore within the initial 18 credits, students are encouraged to take courses which will broaden their background or help them develop study skills.

[^0]14.4.2

John Molson School of Business
credits.

| Community Service (Certificate) | AHSC $230^{3}, 232^{3}, 270^{3}$; ENGL $212^{3} ; 6$ credits in the social sciences chosen in consultation with the program adviser. |
| :---: | :---: |
| Economics (BA) | MATH $209{ }^{3}$ |
| NOTE: Students may need one or more of MATH $200^{3}$ and MATH $206^{3}$. |  |
| Family Life Education (Certificate) | AHSC $220^{3}, 230^{3}, 232^{3}$; ENGL $212^{3} ; 6$ credits in the social sciences chosen in consultation with the program adviser. |
| Human Relations, Specialization (BA) SOCI $212^{3}$ |  |
| Leisure Sciences and Therapeutic Recreation (BA) |  |
| *Students in the Therapeutic Recreation program must choose BIOL $200{ }^{6}$. |  |
| Mathematics (BA) <br> MATH $203^{3}, 204^{3}, 205^{3}$ <br> NOTE: Students not having MATH $202^{3}$ or the equivalent must include it in their 18 credits. <br> NOTE: Students may need one or more of MATH $200^{3}$ and MATH $201^{3}$. |  |
|  |  |
| Psychology (BA) | PSYC $200^{6}$; BIOL $200^{6}$ or $201^{3}$, three credits in Mathematics (in preparation for statistics) chosen in consultation with the Centre for Mature Students. |

## Science

For those mature entry students pursuing a degree in Science the following courses must be included within their 108-credit requirement:

6 credits in Chemistry: CHEM 205 ${ }^{3}, 206^{3}$
9 credits in Mathematics: MATH $202^{3}, 203^{3}, 205^{3 *}$
8 credits in Physics: PHYS $204^{3}, 205^{3}, 224^{1}, 225^{1}$
Additional requirements for programs in the following Departments:

| Biology and Psychology: | BIOL 2013 |
| :---: | :---: |
| Chemistry: | PHYS 206 ${ }^{3}$, $226{ }^{1}$ and BIOL $201^{3}$ |
| Biochemistry: | PHYS 206 ${ }^{3}$, $226^{1}$ and BIOL $201^{3}$ |
| Exercise Science: | PHYS 206 ${ }^{3}$, $226^{1}$ and BIOL $201^{3}$ |
| Geology: | PHYS $206^{3}, 226^{1}$ and GEOL $210^{3}$ |
| Mathematics: | MATH $204{ }^{3}$ |
| Physics: | PHYS $206^{3}, 226^{1}$ and MATH $204{ }^{3}$ |

NOTE: Students must consult with advisers of the Centre for Mature Students before registering particularly with regard to the sequencing of the above credits in the BSc degree. Consultation with the Centre for Mature Students is also necessary in the choice of the 18 additional credits required in the case of a Certificate.

* Students not having MATH $201^{3}$, or the equivalent, must take it in place of one of their elective courses. Some students may also need MATH $200^{3}$.


## Mature Entry - the 108-credit program

In addition to the 90 -credit program, mature entry students will be required to complete the following
18 credits outside the offerings of the John Molson School of Business. Those credits are:
6 credits in MATH $208^{3}, 209^{3}$
6 credits in ECON 201 ${ }^{3}$, $203^{3}$
3 credits in INTE 290 ${ }^{3}$ /COMP $201^{3}$
3 additional elective* credits.
*These elective credits must be selected from outside the offerings of the John Molson School of Business.

Requirements for Certificate programs are listed with the program descriptions in $\S 61$ of this Calendar.
The programs listed below have specific prerequisites which will take up some or all of the initial 18

Chemistry: PHYS 206 ${ }^{3}$, 226 ${ }^{1}$ and BIOL $201^{3}$
Bencis PHY $200^{3}{ }^{2} 0^{1}$ and BOL $201^{3}$
PHYS $206^{3} 226^{1}$ and GEOL 210
Mathematics: MATH $204^{3}{ }^{3}$ M

[^1]a) Building, Civil, Industrial, and Mechanical Engineering:

CHEM $205^{3}$
MATH $202^{3}, 203^{3}, 204^{3}, 205^{3}$
PHYS 204 ${ }^{3}$, 2053, $224^{1}, 225^{1}$
COMP $201^{3}$
Six credits chosen from courses in the humanities and social sciences. ESL courses and courses that focus on the acquisition of a language may not be used to meet this requirement.
b) Electrical, Computer, and Software Engineering:

The courses specified in a), plus PHYS $206^{3}$
*In all programs, some students may require one or more of MATH $200^{3}$ and $201^{3}$ as determined by the Faculty, and/or courses in English as a Second Language, as determined by Language Proficiency Testing.

## Computer Science

Mature entry students accepted to the BCompSc must include in their degree program (minimum 108 credits) the following courses:*
a) Information Systems and Computer Applications Options:

MATH $202^{3}, 203^{3}, 204^{3}, 205^{3}$
COMP $201^{3}$
b) Software Systems and Computer Systems Options:

MATH $202^{3}, 203^{3}, 204^{3}, 205^{3}$
PHYS 204 ${ }^{3}$, 2053 ${ }^{3}, 224^{1}, 225^{1}$
CHEM $205^{3}$
COMP $201^{3}$
Depending on the number of free electives in their option, mature entry Computer Science students may use up to a maximum of 24 credits of prerequisites within the 108-credit program.
A maximum of six credits of prerequisites may be used within the regular 90 -credit program.
*In all options, some students may require one or more of MATH $200^{3}$ and $201^{3}$ as determined by the Faculty, and/or courses in English as a Second Language, as determined by Language Proficiency Testing.

Mature entry students wishing to pursue degree and Certificate programs in the Faculty of Fine Arts must take 18 additional credits appropriate for entry into their ultimate area of concentration. These credits will be chosen with the approval of the Faculty adviser.

### 14.5 PROGRAMS OF STUDY FOR SENIOR STUDENTS

Concordia University is committed to lifelong learning and community service. Seniors at Concordia either take credit courses in a program or as Independent students. They can also choose to audit courses on a non-credit basis through the Senior Audit Program administered by the Centre for Mature Students.
Students aged 55 and over who wish to attend undergraduate courses primarily in the Faculty of Arts and Science for personal interest rather than for credit, may register to audit courses. Though not required to write class assignments or final examinations, they participate in every other aspect of the courses. Senior audit students pay significantly reduced fees. For more information, call (514) 848-3893.

If seniors wish to pursue an undergraduate program or take courses as Independent students for credit, they may do so at the regular tuition fees. Some assistance through a Senior Student Bursary is possible for those 65 or over. Applications and information may be obtained at the Financial Aid Office or at the Centre for Mature Students.
14.5.1

Senior Scholarships
Five senior scholarships are offered each year by the University. They are worth $\$ 500$ a year and may be renewed for up to four years. To be eligible, candidates must be at least 60 years old, and enrolled in a minimum of 12 credits in an undergraduate or graduate program. Educational background and life experience are taken into account in awarding these scholarships.
Additionally, the William Schiff Scholarship of $\$ 500$ is awarded annually (non-renewable) to a full- or part-time senior student aged 55 over who is enrolled in a degree program. This scholarship is made possible by the generosity of the senior students at Concordia University. Information on these scholarships may be obtained at the Financial Aid Office.

## Tuition and fees

15.1 TUITION AND FEES
15.2 PAYMENT OF TUITION AND FEES
15.3 CANCELLATIONS - WITHDRAWALS - ADJUSTMENTS

## TUITION AND FEES

### 15.1 TUITION AND FEES

The University reserves the right to modify the published scale of tuition, and other student fees without prior notice, at any time before the beginning of an academic term. The most current Tuition and Fees information is available on the Concordia University Web site (www.concordia.ca) Quick Link to the "Tuition \& Fees" site.

Tuition fees for undergraduate courses taken by regular, qualifying or Independent students are assessed on a per credit basis as listed below:

Canadian and other students with Permanent Residence (Landed Immigrant) status:

| Québec residents ${ }^{\dagger}$ | $\$ 55.61$ |
| :--- | :--- |
| Non-Québec residents | $\$ 133.75^{\ddagger}$ |

$\dagger$ Please refer to $\S 13.7$ of this Undergraduate Calendar for the Government of Québec rules for determining residency.
$\ddagger$ This rate includes a $\$ 78.14$ per credit premium which must be collected for the Government of Québec.
NOTE: Non-Québec residents following certain programs in the French Language, French Literature or Québec Studies may be exempt from paying this premium. Please refer to §19.3, article 8, for a list of programs for which an exemption may be granted. These are the same programs from which International students may be exempted from paying the International student premium.
*International students:
The tuition fee assessed per credit includes a premium which must be collected for the Government of Québec. The rate of the premium is determined by the government financial sector of the course as follows:
Arts (mostly Fine Arts), sciences pures, sciences appliquées \$339.61* (includes Government premium of $\$ 284$ per credit)
Administration, sciences humaines, éducation, lettres \$305.61*
(includes Government premium of $\$ 250$ per credit)
*Certain International students may be eligible to pay the same fees as Canadian students. Detailed information may be obtained from the Office of the Registrar. See §19.3 for guidelines concerning this policy.

## Code Permanent Penalty

$\$ 284.00$
Effective Fall 2000, all registered Québec university students for whom the University receives funding must have a "code permanent" which is issued by the Québec Ministry of Education. Students who do not have a code permanent must submit a form and supporting documentation to the Office of the Registrar. If the required documents are not submitted within the prescribed deadline, students will be charged an additional $\$ 284$ per credit of tuition. Further information, including a copy of the form, is available at: http://registrar.concordia.ca/cqf/codeperm.htm

In addition to the tuition fee, the following fees are charged on a per credit basis:
Administrative Fee \$ 9.00
Students in financial need may apply for an Administrative Fee Bursary.
Application forms are available at the Birks Student Service Centre
(SGW - LB 185) and the Dean of Students Office (LOY - AD 121).
For information regarding the application for this bursary, please contact the Financial Aid and Awards Office.
Student Service Fee \$ 6.90
Recreation \& Athletics Fee \$ 2.25
Student Association and Activity Fees:
Arts and Science (CSU/ASFA)
\$ 4.17*
John Molson School of Business (CSU/CASA) \$ 8.13*
Engineering and Computer Science (CSU/ECA) \$ 4.58*
Fine Arts (CSU/FASA)
\$ 4.57*
Independent Students (CSU) \$ 3.57*

| *Fees include: | CSU | ASFA | CASA | ECA | FASA |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CSU Fee | \$ 1.50 | \$ 1.50 | \$ 1.50 | \$ 1.50 | \$ 1.50 |
| Association Fee |  | \$ 0.60 | \$ 2.05 | \$ 2.00 | \$ 1.00 |
| Clubs \& Associations | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 |
| People's Potato | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 |
| Association pour une solidarité syndicale |  |  |  |  |  |
| The Link | \$ 0.19 | \$ 0.19 | \$ 0.19 | \$ 0.19 | \$ 0.19 |
| The Concordian | \$ 0.10 | \$ 0.10 | \$ 0.10 | \$ 0.10 | \$ 0.10 |
| Student Broadcast |  |  |  |  |  |
| Media Fund | \$ 0.09 | \$ 0.09 | \$ 0.09 | \$ 0.09 | \$ 0.09 |
| CJLO Radio | \$ 0.10 | \$ 0.10 | \$ 0.10 | \$ 0.10 | \$ 0.10 |
| Cdn. Confederation |  |  |  |  |  |
| Women's Centre | \$ 0.27 | \$ 0.27 |  |  | \$ 0.27 |
| QPIRG | \$ 0.30 | \$ 0.30 |  |  | \$ 0.30 |
| Career Placement Centre |  |  | \$ 2.50 |  |  |
| R.O. Wills Computer |  |  |  |  |  |
| Laboratory |  |  | \$ 1.00 |  |  |
| Total Fee | \$ 3.57 | \$ 4.17 | \$ 8.13 | \$ 4.58 | \$ 4.57 |

In addition to the tuition, student service and student association fee, the following fees are charged: Capital Campaign (up to a maximum of $\$ 30$ per term):

| All students (except Engineering and Computer Science) | $\$ 2.00$ per credit |
| :--- | :--- |
| Engineering and Computer Science students |  |
| Full-time | $\$ 30.00$ per term |
| Part-time | $\$ 15.00$ per term |

On March 19, 1997, the University's Board of Governors ratified a motion presented by student leaders that introduced a mandatory Capital Campaign Fee for all students. While the fee is mandatory, the University and student leaders are aware and sensitive to the possibility that some students may be in difficult financial circumstances and consequently should be exempted from paying the Capital Campaign Fee. Students in financial need may apply for a Capital Campaign Fee Exemption. Capital Campaign Fee Exemption Application forms are available at the Birks Student Service Centre (SGW - LB 185) and the Dean of Students Office (LOY - AD 121). The application form should be submitted along with all required supporting documentation.

| Registration Fee |  | \$20.00 per term |  |
| :---: | :---: | :---: | :---: |
| Concordia Student Safety Patrol Fee |  |  | \$ 1.00 per term |
| Le Frigo-Vert (except Summer) |  |  | \$ 1.70 per term |
| Concordia Student Health (charged to students re three credits in a given | and Dental Care Plan gistered in more than term) |  | \$153.00 per year |
| Coverage | Sept. - Aug. Sept. - Dec. | Jan. - Aug | Aug. |
| Health \& Dental Plan | \$153.00 \$ 51.00 | \$102.00 |  |
| Health Plan Only | \$ 66.00 \$ 22.00 | \$ 44.00 |  |
| Dental Plan Only | \$ 87.00 \$ 29.00 | \$ 58.00 |  |

Some students may be eligible to opt out of the Student Health and Dental Plan. Students who wish to opt out of the plan (dental and/or health) must present themselves to the Québec Student Health Alliance, Suite 700, 1134 Ste. Catherine St. W., (514) 844-4423. Students who are registered in the Fall or Fall/Winter semesters must opt out between the first day of Fall-term classes and the Fall-term DNE deadline (September 2 - 16, 2003).
Students enrolled in Fall and Winter-term courses may not opt out after the September deadline or during the Winter-term opt-out period. Students who are registered in the Winter semester only must opt out between the first day of Winter-term classes and the Winter-term DNE deadline (January 5 19, 2004).

| Student Orientation Fee (new students in first term of enrolment only): |  |
| :--- | :--- |
| Full-time students | $\$ 35$ |
| $\quad$ Parr-time students | $\$ 25$ |
| Health Insurance for International Students (See $\S 19.5$ ) | $\$ 480$ per year |
| (\$480 September to August; \$399 January to August; \$253 May - August) |  |
| Surcharge on Private Study Music Courses: |  |
| $\quad$ Six-credit course | $\$ 380$ |
| Three-credit course | $\$ 190$ |

Co-op (Institute for Co-operative Education) Fee
(This fee is charged to students participating in a
Co-operative Education Work Study Program)
Residence Rent and Other Fees:

| Single Room | $\$ 340.41$ per month |
| :--- | :--- |
| Double Room | $\$ 292.28$ per month |

## Other Fees:

Acknowledgement of Payment Receipt \$ 1
Application Fee
Application for Degree Transfer
Computer Account (Paper Fee)
Confirmation Deposit (non-refundable)
Course Descriptions
(maximum \$25)
Degree:
Mailing of Degree \$ 15
Certification of Copy of Degree \$ 3
Replacement Degree \$ 50
Duplicate of Receipt \$ 2
Examination:
Deferred Examination/Medical Examination Processing Fee \$ 15
Off-Campus Examination \$ 10
Special Examination Fee (CELDT) \$ 20
Supplemental Examination
(plus Invigilation Fee when applicable) \$ 25
Fax Fee (for each 10 pages or less, excluding cover sheet) \$ 10
Graduation:
Graduation Fee \$ 40
Late Application to Graduate \$ 15
Handling Charge on a Returned Cheque \$ 20
Late Completion Fee \$ 15
Letter of Attestation or Attestation Form \$ 10
Letter of Financial Standing \$ 10
Locker Rental Fee:
Summer Term \$ 8
Fall/Winter Term \$ 16
Off-Campus Centre Charge \$ 5
Re-evaluation Processing Fee \$ 15
Registration:
Authorization to Register Fee (Independent Student) \$ 15
Late Registration Fee \$ 25
Student Record (copy of) \$
Transcript of Academic Record (per address - maximum 3 copies) \$ 9
(includes $\$ 3$ for student copy - see Fax Fee if applicable)
Tuition Receipts for Educational Tax Credit \$ 12
(no charge for first set)
Universal Identification Card \$ 11.50
Replacement of Identification Card \$ 11.50
University Calendar (no charge for first copy) \$ 7
$\$ 185$ per term
$\$ 292.28$ per month
\$ 50
\$ 40
\$ 3.50 per year
\$ 50
\$ 5 per academic year

3
5
5

5 per credit ${ }^{*}$
*There are surcharges (cost varies by course) for Distance Learning and Off-Campus courses. For further information, please contact the Open and Distance Learning Coordinator at (514) 848-3440.

### 15.2 PAYMENT OF TUITION AND OTHER FEES

Financial Obligations: Once a student has registered for a course, he/she is responsible for payment of the resulting fees. When a course is dropped within the deadline for official course withdrawal (DNE), a full refund (or financial credit) of tuition and other fees will be granted. When a course is not dropped on or before the DNE deadline, the student will be held financially responsible for all resulting tuition and other fees whether or not the student attended or stopped attending class. No partial refunds can be granted. In the event that a student has not yet made payment and withdraws after the DNE deadline, the student will be held financially responsible for the payment of the resulting fees.

Accounts/Registration Restrictions: In order to register, the student's account must be in good standing (paid in full). All monies owing to the University (such as tuition and other fees, residence rent, delinquent emergency loans, library fines, etc.) must be paid when they become due. Students with overdue or delinquent accounts are not permitted to register or re-register until payment or satisfactory payment arrangements have been made with the Student Accounts Office (see payment deadlines below). Course registrations in future terms will be cancelled if registered students do not make payment when fees become due. However, current registrations will not automatically be cancelled for non-payment of a student's account.

Other Accounts Restrictions: Failure to make payment, or to arrange satisfactory payment settlement of amounts owing to the University when they become due is sufficient cause to bar the student from classes or examinations, and to withhold diplomas, scholastic certificates, or transcripts of record until the debt is adjusted with the University.

Statements of Account: Students are required to make payment when fees become due whether or not they have received an invoice or statement of account. The Student Accounts Office does not issue a statement of account every month or before a payment becomes due. Students can obtain their student account balance on CARL (514-275-2275); online statements of account are available at www.myconcordia.ca and at www.concordia.ca (Quick Links to "Personal Student Information" or "Tuition \& Fees" site). Students can obtain a payment stub at the Hall Building Information Desk, the Student Accounts Office, the Birks Student Service Centre, and the Dean of Students Office.

Returned Items (Cheques, Credit Card Payments): Current and/or future registrations may be cancelled if a cheque or credit card payment is returned for any reason. A $\$ 20$ processing fee will be charged for each returned item.

Interest: Interest is payable on all outstanding balances at the rate of . $67 \%$ per month ( $8 \%$ per annum). This rate may change from time to time in conformity with prevailing interest rates.

Tuition Credits/Refunds: A full refund of tuition, or financial credit, will be granted to students who officially withdraw in writing to the Office of the Registrar, via CARL (514-275-2275), via Web registration (www.concordia.ca), or in person at the Birks Student Service Centre prior to the DNE deadline dates (refer to §11 for specific dates). When dropping courses on CARL or Web registration, students should make sure to confirm the transaction and/or call back to make sure that the course was indeed dropped.
Please note that not attending classes, not paying tuition, or simply informing an instructor of one's intent to withdraw does not constitute official withdrawal, nor does it entitle a student to a refund of fees, financial credit of fees, or cancellation of a registration.

Tuition Refunds on Discontinued (DISC) courses: In certain cases, students may apply to the Tuition Refund Request Committee (TRRC) for a full or partial refund on discontinued courses. An information brochure and application form can be obtained at the Birks Student Service Centre, the Dean of Students Office, and on the Concordia Web site at www.concordia.ca (Quick Links to the "Tuition \& Fees" site). Students should read the application request carefully before making a submission. Requests that do not meet the criteria of the TRRC will be denied with no further explanation.

Payment Deadlines and Consequences for Non-Payment of Fees when Due

| Academic Term | Payment Deadline |  | Cancelled Courses |
| :--- | :--- | :--- | :--- |
| Summer (/1 courses) | August 1, 2003 |  | Fall, Fall/Winter, \& Winter courses |
| Fall (/2 courses) | September 16, 2003 |  | Winter courses |
| Fall/Winter (/3 courses) |  |  |  |
| $50 \%$ of fees | September 16, 2003 |  | Winter courses |
| $50 \%$ of fees | January 19, 2004 |  | No registration in future academic sessions |
| Winter (/4 courses) | January 19, 2004 | No registration in future academic sessions |  |

Payments must be received by Concordia University on or before the prescribed deadline date.
Methods of Payment: Concordia University has a "no cash" policy. The University will not accept cash payments for student tuition and other fees. Payments can be made by debit card (Interac), MasterCard, Visa, certified cheque, money order, or personal cheque. With a payment stub, payments can be made at any chartered bank or automatic teller machine in Canada. Payments can also be made through most Canadian banking institutions' telephone and Web payment services.

Payment Arrangements: Students encountering difficulties meeting their financial obligations with regard to outstanding balances on their student account should contact the Student Accounts Office, Hall Building, Room H 541, (514) 848-4900 before the payment deadline date.

## Other Methods of Payment

- Students who are receiving government loans and/or bursaries may be eligible to receive a Tuition \& Other Fees Deferral. Contact the Financial Aid and Awards Office (S-LB 085) for further information.
- Students whose "Sponsor" (e.g. government, corporation) is paying $100 \%$ of their tuition and fees must present original proof of sponsorship to the Student Accounts Office before the payment deadline date.
- University employees may be eligible for Employee Tuition Waivers. These are obtained from the Human Resources Office (S-ER 500) at least one or two days before a payment becomes due. Please note that Employee Tuition Waivers cover only the tuition base rate for university credit courses. Non-Québec Resident and International Student premiums and compulsory fees are not covered by an Employee Tuition Waiver. All non-tuition fees must be paid by the student by the payment deadline date.
- Payroll Deductions may be available to teaching and research assistants and certain Concordia employees. Further information and Payroll Deduction forms are available at the Payroll Office (S-ER 500).
Payment arrangements do not supersede the University's tuition and other fees payment policies with regard to the assessment of interest charges, the release of transcripts, student records, degrees, diplomas, or other official records, or permission to register in future terms. In addition, students will not be permitted to register for additional courses or future academic terms until all current amounts due are paid in full. Interest charges are assessed on all outstanding balances (and deferred balances) regardless of whether or not a payment arrangement has been made with the Student Accounts Office.
The Student Accounts Office reserves the right to cancel a current registration if payment arrangements are not honoured. However, current registrations will not automatically be cancelled for non-payment of a student's account.


### 15.3 CANCELLATIONS - WITHDRAWALS - ADJUSTMENTS

## WITHDRAWAL REBATES

Withdrawal from a course, courses or a program: Students who withdraw from courses or from the University must comply with the requirements set out in this section in order to qualify for any rebate of tuition. Students who are granted late academic withdrawal from a course, courses, or a program after the deadline for academic withdrawal has passed, do not qualify for a rebate of tuition. Once students have registered for courses, they are responsible for payment of the resulting fees.

In order to qualify for a rebate or financial credit of tuition, students must withdraw from courses or from the University in compliance with the requirements and withdrawal deadlines set out in the appropriate Undergraduate Class Schedule. In the event that students have not yet made payment for these fees, students will be held financially responsible if they do not withdraw from a course, courses, or from the University on or before the prescribed withdrawal (DNE) deadline. Complete withdrawal from the University must be done in person at the Birks Student Service Centre, via CARL, or in writing via registered mail.

## Rebate of Tuition

The following rebates are applied to withdrawals effected in a current academic year.

## Summer Session

Courses of at least three weeks duration: withdrawal within one week of the start of the term. No refund after that date.
Courses of less than three weeks duration: withdrawal on or before the first day of the term. No refund after that date.

Courses which begin in September (/2 and /3 courses)
Withdrawal on or before the Fall-term DNE deadline date - September 16, 2003: a full refund. No refund after the deadline.

Courses which begin in January (/4 courses)
Withdrawal on or before the Winter-term DNE deadline date - January 19, 2004: a full refund. No refund after the deadline.
N.B. Exact deadlines are also published in the Undergraduate Class Schedule.

## Tuition Refund Request Committee

1. The Tuition Refund Request Committee (the Committee) considers requests from full-time or part-time students for exceptions to the rules governing the refund of tuition fees.
2. A refund request shall be made on a Tuition Refund Request form available at the Birks Student Service Centre, the Dean of Students Office, and on the Student Accounts' Web site. A request with respect to a Fall-term course must be made no later than the following February 1 ; with respect to a Fall/Winter or Winter-term course, no later than the following June 15, and with respect to a Summer-term course, no later than the following October 1. These deadlines may be extended by the Committee in particular cases if the student can provide evidence that he or she was unable to have acted within the deadlines.
3. The Committee shall be composed of four members: a Chair appointed by the Provost, a representative from the Student Accounts Office, a representative from the Office of the Registrar, and a student representative.
4. The Committee shall render a decision, based on the written record only, normally within thirty (30) working days of receiving the request. The Committee may reject the request, grant a partial refund or a complete refund. No refunds may be granted unless the student has officially withdrawn from the course(s) in question. The decision of the Committee is final.

OFF-CAMPUS COURSES: Same schedule as on-campus courses.

## Academic information: DEFINITIONS AND REGULATIONS

16.1 GENERAL INFORMATION<br>16.1.1 Academic Year<br>16.1.2 Credit System<br>16.1.3 Residence Requirements<br>16.1.4 Registration for Courses<br>16.1.5 Cancellation of Classes<br>16.1.6 Withdrawal<br>16.1.7 Studies at Other Universities<br>16.1.8 Student Request Committees<br>16.1.9 Graduation<br>16.1.10 Student Record<br>16.1.11 Transcript<br>16.2 CURRICULUM REGULATIONS<br>16.2.1 Modifications to Academic Programs and Regulations<br>16.2.2 Degree Regulations<br>16.2.3 Concentration Requirements<br>16.2.4 University Writing Test<br>16.3 EVALUATION, GRADING SYSTEM, EXAMINATIONS,<br>AND PERFORMANCE REQUIREMENTS<br>16.3.1 Evaluation<br>16.3.2 Language of Instruction and Examinations<br>16.3.3 Grading System<br>16.3.4 Failing Grades and Administrative Notations<br>16.3.5 Administrative Notations "DISC", "DNW", "INC", "MED", "DEF", "REPT"<br>16.3.6 Late Completion of Courses with "INC" Notations -<br>Procedures and Regulations<br>16.3.7 Deferred "DEF", Medical "MED" Notations and Supplemental Examinations Procedures and Regulations<br>16.3.8 Academic Re-evaluation<br>16.3.9 Examinations<br>16.3.10 Academic Performance<br>16.3.11 High Academic Achievement<br>16.3.12 Repetition of Courses<br>16.3.13 Code of Conduct (Academic)

# 16 <br> ACADEMIC INFORMATION: DEFINITIONS AND REGULATIONS 

Interim University Registrar
LINDA HEALEY
Associate Registrar
TERRY TOO
Assistant Registrars
ASSUNTA FARGNOLI
BRUCE MACKENZIE
PETER REGIMBALD

Supervisor - Birks Student Service Centre LORRAINE TOSCANO

Supervisor - Records Management and Statistics
MARIE-CLAIRE NEWMAN
Supervisor - Registration and Examinations LINDA HULL

### 16.1 General Information

The Calendar is an official University document defining academic programs and the regulations which pertain to them. It is accurate as of its printing date. The University Senate reserves the right to modify the academic programs and regulations at its discretion after the publication date of the Calendar. In addition, the University reserves the right to modify the published scale of tuition and other student fees at any time before the beginning of an academic term. The most current information is available from the Office of the Registrar and, for graduate programs, from the School of Graduate Studies. Moreover, the information contained in the Calendar or any other University document related to academic programs and regulations is subject to verification and correction by the Office of the Registrar and the School of Graduate Studies.
The regulations contained in this section apply to all students at the undergraduate level, whether they are enrolled in degree, Certificate, or qualifying programs or registered as Visiting or Independent students, with the following exceptions:
a) Degree, Certificate, and qualifying program requirements are determined by those in effect in the year of the student's admission. (See §16.2)
b) The regulations concerning Residence Requirements and Academic Performance Requirements are also governed by those in effect in the year of a student's admission.
c) Determination of High Academic Achievement is governed by the most recent regulation in effect.
Students who were admitted before the current year should consult the appropriate Calendar and the Office of the Registrar or, for graduate programs, the School of Graduate Studies, for information on these regulations.
Specific written permission must be obtained from the appropriate authority for exemption from any academic regulation.
Students must have a valid I.D. card to access certain services.
16.1.1

Academic Year
16.1.2

Credit System

The Academic Year begins with a Summer Session (May to August) followed by a Regular Session (September to April).

## Summer Session:

The Summer Session includes all courses offered between the beginning of May and the end of August.

Regular Session:
The Regular Session is divided into a Fall Term (September-December) and a Winter Term (January - April), each 15 weeks long. Terms include an examination period, during which any final examination must be held. The Academic Calendar $\S 11$ lists precise dates for the beginning and end of classes and examination periods.

In accordance with the recommendations of the Conseil des Universités du Québec, students' academic activity is measured according to the credit system. For the average student, each credit represents a minimum of 45 hours of academic activity, including lectures, tutorials, laboratories, studio or practice periods, examinations, and personal work.

## I. FULL- AND PART-TIME STATUS

A student's status is determined by the number of credits for which she or he is registered at the close of the tuition refund period, in the following way:

|  | Full-Time* | Part-Time |
| :--- | :--- | :--- |
| Registration for both Fall and Winter terms | 24 Credits or More | Less than 24 Credits |
| Registration for Fall Term Only | 12 Credits or More | Less than 12 Credits |
| Registration for Winter Term Only | 12 Credits or More | Less than 12 Credits |
| Registration for the Summer Session | 12 Credits | Less than 12 Credits |

*NOTE: Students receiving Québec loans and bursaries are advised that, according to the rules established by the Government of Québec, they must maintain registration of 12 credits or more each term. For further information, see Financial Aid §18.7.1.

## II. CREDIT LOADS

## Regular Session - Full-Time Status

Full-time students normally take 30 credits in each Regular Session. They may register for a maximum of 15 credits in each of the Fall and Winter terms. Engineering programs may require more than 30 credits. For information on Engineering credit loads, see §71.

## Regular Session - Part-Time Status

Part-time students in all Faculties may register for a maximum of nine credits in each of the Fall and Winter terms.

## Regular Session - Independent Status

Independent students may normally register for a maximum of nine credits in each of the Fall and Winter terms.

## Summer Session

Any student, other than one in the Institute for Co-operative Education (§24) or the Faculty of Engineering and Computer Science (\$71), may register for a maximum of 12 credits during the Summer Session.
16.1.3

Residence
Requirements

Residence requirements define the number of credits which students working towards a Concordia University degree must take at the University itself.

1. Of the total number of credits required for an undergraduate degree, students must take a minimum of 45 credits, normally the last 45 , at Concordia University. The BEng, the BA (Early Childhood and Elementary Education), the BEd (TESL), and the BFA (Art Education) require 60 credits, normally the last 60, at Concordia.
2. At least $50 \%$ of the credits for Honours, Specializations, Majors, Minors or other concentrations must be taken at Concordia. The BComm and BAdmin programs also require that at least 50\% of the core courses be taken at Concordia.
3. Concordia University students who wish to include courses taken at another university within their residence requirements must obtain permission in advance. (See §16.1.7)
4. Students who already have an undergraduate degree may undertake a second undergraduate degree, subject to the conditions below. (Before registering, such students should consider whether their purpose might be better served by taking a graduate degree, diploma, or certificate program.) To obtain a second undergraduate degree, students must:
a) register in a program with a higher concentration than a Minor, and
b) complete at least two-thirds of the credits normally required for the second degree in courses other than those credited to the first degree - for example, a minimum of 60 credits must be completed when the normal requirement is 90 credits, and
c) complete at least 36 credits in the new field of concentration.
5. An exception to 4b) above, is the BEd in TESL, for which students must complete at least half of the 120 credits required for the second degree in courses other than those credited to the first degree.
6. Any student who is accepted at Concordia University after failing or compiling an unsatisfactory record at another university, will generally be required to complete at least 60 credits.
16.1.4

Registration for Courses
16.1.5

Cancellation of Classes
16.1.6

Withdrawal
16.1.7

Studies at Other Universities

Students select courses for each session (Summer and Fall/Winter) prior to the start of classes. All newly admitted students will receive registration information by mail; new Independent and Visiting students can obtain registration information at the Birks Student Service Centre; returning students in good standing can obtain registration information at www.myconcordia.ca.
Most students will be able to register for all their courses online at www.myconcordia.ca or by touch-tone telephone using CARL, the Concordia Automated Response Line.

If no class cancellation notice is posted on the classroom door, classes are officially considered cancelled if an instructor is 15 minutes late for a 50 -minute class, 20 minutes late for a 75 -minute class, or 30 minutes late for longer classes.

1. Withdrawal

Students who wish to withdraw from a course or courses must notify the Office of the Registrar. This can be done online at www.myconcordia.ca or by calling the Concordia Automated Response Line (CARL), in person at the Birks Student Service Centre, or by letter. (For their own protection, students should send such letters by registered mail or by fax.)
Students who wish to withdraw from the University completely must withdraw from all their courses and notify the Office of the Registrar in writing.
Withdrawal deadlines are listed in the Academic Calendar (\$11) and in the appropriate Class Schedules. Rebates of tuition and other fees are only given for a limited time. (See §15)
The responsibility for taking all steps necessary to withdraw from courses is entirely the student's. Not attending classes or informing an instructor of an intent to withdraw does not constitute official withdrawal. An evaluation by the instructor of a student's progress is not mandatory prior to the withdrawal deadline. Students who do not properly withdraw before the specified deadlines will receive failing grades.

## 2. Lapsed Program Status

Students in the Faculty of Arts and Science who have been absent from their program for nine consecutive terms or more will be withdrawn from their program and must meet with an academic adviser before reinstatement into the program.
Students in the John Molson School of Business who have been absent from their program for six consecutive terms or more will be withdrawn from their program and must meet with an academic adviser before reinstatement into the program.
Students in the Faculty of Engineering and Computer Science who have been absent from their program for six consecutive terms or more will be withdrawn from their program and must submit a new application for admission through the Office of the Registrar.

With the exceptions listed below, students who wish to take courses at other universities for transfer credit (for example, in the Summer) must obtain permission in advance from their Faculty Student Request Committee.

## 1. Cross-registration within Québec (Inter-University Agreement)

Québec universities have agreed to permit students registered at one university (called the home university), to take one or more courses at another university (called the host university) if they have valid reasons for doing so.
A student must obtain authorization to cross-register from his or her academic adviser, the appropriate Associate/Vice-Dean or delegate of the student's Faculty, and the Registrar. Beginning with the Winter 2003 Term, paper application forms (formerly available from the Birks Student Service Centre and the Faculty Dean's offices) will be replaced by a Web-based application. (Students should consult the Office of the Registrar for further information.)
The host university has the right to refuse to register a student from another university in any of its courses or programs. Students are expected to follow the registration procedures of the host university and are subject to the regulations of the host university, except for tuition and fee policies which are governed by the home university. Fees are paid to the home university.
Credit earned at host universities counts towards Concordia residence and degree requirements. The grades achieved at other institutions for courses taken under the Inter-University Agreement will be recorded on Concordia records and transcripts using a conversion table that will be published by the Office of the Registrar each academic year. Copies of the conversion table are available at the Birks Student Service Centre.
These grades will be included in the calculation of Grade Point Averages in the same manner as any grade achieved in a course taken at Concordia.

## 2. Student Exchange Programs and Québec Bursary for Student Mobility

To enhance relationships between the people and cultures of different countries and to promote international education at Concordia University, the Centre for International Academic Cooperation (CIAC) of Concordia University in collaboration with the Faculties of Arts and Science, Engineering and Computer Science, Fine Arts, the John Molson School of Business, and the School of Graduate Studies, administers the Internationa//Student Exchange Program (I/SEP) with bilateral partner universities and other institutions of higher learning around the world. Through these cooperative linkage agreements, students are permitted to study for one term or the academic year at a partner university while remaining a registered student at Concordia University.
As a participating member of the network of Québec universities - La Conférence des recteurs et des principaux des universités du Québec (CREPUQ), the CIAC also administers an I/SEP with universities from around the world.
Both the bilateral and CREPUQ I/SEPs are available to all full-time Concordia University students who meet the following conditions:

- they are in good academic standing and have a good to excellent academic record;
- they have completed at least one year of full-time study in the program in which they are registered;
- they have written permission of their Faculty.

In most cases, students should be fluent in the language of the hosting university. An important aspect for students considering participating in the I/SEP is that tuition and related fees are, in general, payable to Concordia University. All incidental fees such as health insurance, living expenses, and transportation costs to and from the host country are the responsibility of each student.
In addition to the I/SEP, the CIAC also administers a "Study Away Program" which permits Concordia students to study at universities in other Canadian provinces.

## Québec Bursary for Student Mobility / Programme de Bourses du MEQ pour de Courts Séjours d'Études Universitaires à l'Extérieure du Québec

The Programme de Bourses du MEQ pour de Courts Séjours d'Études Universitaires à l'Extérieure du Québec is a provincially funded program for Québec resident students registered full-time in a Québec university. Beginning in the Fall 2000 (September 2000) Term, all students who are registered full-time in a program leading to an undergraduate degree, graduate degree or graduate diploma may be eligible to complete a portion of their academic program outside of Québec, enabling them to enhance their educational development in their field(s) of study. This short-term study period can be partially financed by the newly established bursary program offered by the Ministère de l'Éducation du Québec (MEQ).
The amounts permitted will vary according to the region and duration of the study period. The amounts for this program are as follows:

- $\$ 1,000$ maximum/month for studies undertaken in the United States, Japan, Australia,

New Zealand, and Western Europe;

- $\quad \$ 750$ maximum/month for all other countries and other provinces in Canada.

Eligibility: The following conditions apply for all full-time Québec resident undergraduate students who are currently enrolled at Concordia University and are applying to either the I/SEP or Study Away Program within Canada.
Further information and application forms for the Concordia and CREPUQ I/SEP, the Concordia Study Away Programs or the Québec Bursary for Student Mobility are available from the Centre for International Academic Cooperation - Loyola Campus, Administration Building, Room: AD 207 (514) 848-4987, fax 848-2888, or E-mail: ciac@vax2.concordia.ca. The deadline for application is February 16.

1. Student Request Committees consider applications from full-time or part-time students for exceptions to academic regulations or related matters, such as permission for course overloads, registration or withdrawals after the deadline, course substitutions, exceptions to residence requirements, and permission to take courses at other universities.
Students shall submit applications to the Student Request Committee of the Faculty in which they are registered. Independent students shall submit applications to the Independent Student Request Committee.
2. A student request shall be made on a Student Request form available:
i) for students registered in the John Molson School of Business, the Faculty of Engineering and Computer Science, or the Faculty of Fine Arts - from the relevant Student Affairs Office;
ii) for students registered in the Faculty of Arts and Science - from the academic department housing the program in which they are registered;
iii) for Independent students - from the Birks Student Service Centre.
3. A student request shall be made within a reasonable period of time from the circumstances giving rise to the request. In determining whether the period of time elapsed is reasonable, all of the circumstances of the case shall be evaluated.
4. Each Faculty shall have a Student Request Committee composed of:

- three faculty members appointed by the Faculty Council;
- one representative appointed by the Registrar;
- one student appointed by the Faculty Council;
- the Associate/Vice-Dean who shall Chair the Student Request Committee.

The Independent Student Request Committee shall be composed of:

- one representative appointed by each Faculty Council for a total of four representatives;
- one representative appointed by the Director of the Centre for Mature Students;
- one student appointed by the Concordia Student Union;
- one representative appointed by the Registrar who shall Chair the Independent Student Request Committee.

5. A Student Request Committee may delegate the responsibility for handling certain kinds of requests to designated individuals (e.g. academic advisers, faculty advisers, student affairs coordinators). Where a decision is made by a delegated individual, the student may appeal that decision to the Student Request Committee, as a whole, based on new evidence or other serious grounds, by sending an appeal request, in writing, to the Chair of the Student Request Committee within ten (10) working days of receiving the decision.
6. In all cases, the delegated individual and/or the Student Request Committee shall render a reasoned written decision, based on the written record only, normally within thirty (30) working days of receiving the request. Decisions of the Student Request Committee are final.
16.1.9

Graduation
16.1.10 Student Record
16.1.11

Transcript

Degree and Certificate candidates who expect to complete requirements in a particular year must submit Graduation Application Forms to the Office of the Registrar before July 15 for Fall graduation and before January 15 for Spring graduation. The forms are available at the Birks Student Service Centre. The graduation fee is payable whether or not a student attends Convocation.

A record is a comprehensive report of a student's academic history at the University. It is a complete academic record and includes all courses followed at Concordia. It is available to the student and to authorized University staff and faculty. Students may obtain a copy of their record from the Birks Student Service Centre during normal operating hours or by written request. For each copy there is a charge of $\$ 3$. Students may also access their record through the Concordia Web Site, www.myconcordia.ca, at no charge.

A transcript is a version of a student's record intended for the use of external institutions, organizations, and employers. It is a complete academic record and includes all courses followed at Concordia. It is accompanied by an explanation of its terminology and is sent directly to the addressee at the written request of the student, providing there is no outstanding account owing to the University. An official transcript is printed on security paper, and is signed and sealed by the Registrar's representative.

### 16.2 Curriculum Regulations

16.2.1

Modifications to
Academic
Programs and
Regulations
With the exception of the following conditions, the curriculum requirements in effect at the time students are admitted to a program (e.g. BA, BFA, Certificate in Business Studies) and/or concentration (e.g. Major, Specialization), are the requirements which apply to them until they complete their program.

1. The University reserves the right to modify academic program requirements in the light of (a) changing trends in academic and professional fields, and (b) the availability of resources. In the exceptional event that a program is substantially altered by the University Senate, the University recognizes its responsibility to offer suitable transition arrangements for students. The new program requirements should become effective for all students no later than five years after the effective date of change for newly admitted students.
2. When a program is discontinued, the University recognizes its responsibility to offer courses in the program while phasing it out according to a schedule appropriate to the needs of the affected students. Students will be informed of the schedule when the decision is made to phase the program out.
When students in a discontinued program have not been registered for three years, it may not be possible to enable them to complete that program. They may, however, transfer into another program in the University for which they meet the admission requirements.
3. Where students acquire credit towards a degree or Certificate in a discontinuous manner and over a protracted time, the University reserves the right, at any time, to require them to take further credits or fulfil additional requirements to obtain that degree or Certificate.
4. Modifications to the academic regulations in $\S 16.1$ and 16.3 become effective for all students on a given date regardless of the student's date of admission to a program, with the following exceptions:
16.1.3 Residence Requirements
16.3.10 Academic Performance Requirements
16.3.11 High Academic Achievement

Modifications to these three regulations apply only to students admitted or readmitted to a program on or after the effective date of such modifications.
5. In the event a student is readmitted after failing an academic year, the University reserves the right to require the student to take additional credits or to repeat certain courses. The student is also subject to changes in academic regulations or program requirements in effect at the time of the student's readmission.

The regulations relating to degree requirements are located in the Faculty sections:

| Faculty of Arts \& Science | Section 31 |
| :--- | :--- |
| John Molson School of Business | Section 61 |
| Faculty of Engineering \& Computer Science | Section 71 |
| Faculty of Fine Arts | Section 81 |

Every undergraduate program requires a cohesive sequence of courses. To graduate in a degree program, a student must have completed one of the following concentrations: Honours, Specialization, Major. In the Faculty of Engineering and Computer Science, concentrations are referred to as Programs. Most of these Programs have Options, where students take a number of related courses in a chosen area. Honours is a highly concentrated program with a required performance level; the Specialization and the Major require varying degrees of concentration, normally without a performance requirement. An Honours, Specialization, or Major can be combined with a Minor. In some circumstances, a Double Major is also possible.

## 1. Honours Programs

The University offers programs leading to an Honours degree in certain disciplines. The Honours program consists of 60 or more credits in a discipline, with superior performance required to enter and remain in the program. In their first year, students may register in Honours program courses, but their acceptance as Honours students will depend on their performance. Students who do not meet requirements for Honours standing may proceed in either a Specialization or a Major program. These regulations are the minimum academic standards for Honours programs. The programs and particular Faculty regulations are listed in the Faculty sections under "Honours Programs".

1. An Honours student must meet general degree requirements and the specific requirements for an Honours program.
2. An Honours student must maintain a Grade Point Average (GPA) of 3.00 in all Honours courses; the minimum acceptable grade in any Honours course is "C".
3. An Honours student must have a minimum GPA of 2.70 for Honours courses taken each year. For part-time students this is calculated in 18 -credit blocks.
4. In non-Honours courses, an Honours student must have a GPA of no less than 2.00.
5. Honours students who do not meet these standards will be withdrawn from the Honours program and will proceed in the Major or Specialization program. Reinstatement in the Honours program is possible only with the permission of the Faculty Honours Committee.

## 2. Specialization Programs

A Specialization, as recommended by the Conseil des Universités du Québec, is a sequence of courses totalling 60 or more credits. In a few cases it includes a performance requirement. In addition to courses in a particular discipline, the Specialization may include courses in other closely related fields.

## 3. Major Programs

A Major, as recommended by the Conseil des Universités du Québec, is a sequence of courses totalling 36 or more credits, except in the John Molson School of Business where the Major consists of at least 24 credits in a particular discipline in addition to the required 42 -credit core. The Major may include certain courses in other closely related fields.

## 4. Minor Programs

A Minor, as recommended by the Conseil des Universités du Québec, is a sequence of courses totalling 24 or more credits, except in the John Molson School of Business where the Minor consists of at least 12 credits in the chosen discipline in addition to the required 42 -credit core.

## 5. Combined Programs

An Honours, Specialization, or Major program may be combined with a Minor program. In some circumstances, a Major program may also be combined with another Major program.

## 6. Certificate Programs

An undergraduate Certificate is a coherent program, usually of 30 credits, made up of regular undergraduate courses. Courses taken as part of a Certificate program are normally applicable to the appropriate undergraduate degree. There is no guarantee that a Certificate program can be completed in one academic year.
16.2.4

University Writing Test

The Concordia University Writing Test (UWT) is an undergraduate degree requirement. It is not an exit examination. Students who fail to demonstrate sufficient fluency in their written expression will be assisted in improving their writing skills early in their programs so that the positive effects of competent written expression may be reflected in subsequent course work. Concordia University is committed to ensuring that its undergraduate students possess good writing skills.
All students admitted to a program at Concordia University can meet the writing skills requirement in one of two ways:

## 1. Passing the University Writing Test (UWT)

Every student in an undergraduate degree program is required to demonstrate competence in writing
English or French before the completion of the first 30 credits of his or her program. Two
attempts at passing the University Writing Test will be permitted, but both must be made
before completing 30 credits. Should the second attempt result in a second failure, students must register for a writing course at the appropriate level.
Registration for the appropriate level course must take place for the following term. Failure to do so may result in a delay in graduation.
Students who do not meet the requirement on the first attempt, but who wish to proceed directly to a writing course may do so following the next available registration period, and after consultation with the Department of English, the Département d'études françaises, or the Centre for Teaching English as a Second Language.
The UWT requires a short composition in English or French on the student's choice of one of several topics. The test is offered a number of times throughout the year. (Unsuccessful attempts do not appear on the student's record.) All newly admitted students, except those required to take JOUR 201 and those already registered for ENGL 212 or FRAN 400, should register for the first available test. Dates for the test and registration procedures are listed in $\$ 11$ of this Calendar, at the Birks Student Service Centre (LB 185), and on the University Writing Test Web site at http://Web2.concordia.ca/uwt.
Students will be informed of their results in one of the following ways:
a) Student records will be updated for those who pass the UWT to read, "Writing Skills Requirement Satisfied." Records may be accessed electronically from the University's Web site at www.concordia.ca.
b) Notification of failure to meet UWT requirements will be sent by regular mail to inform students that they may take the test for a second, and final, attempt, or register for an appropriate writing course after completing a placement test in either English or French. This notification letter will also direct students to the appropriate department for placement testing.

## 2. Passing ENGL 212 or FRAN 400 with "C-" or better*

If students fail the UWT or have not passed ENGL 212 or FRAN 400 with "C-" or better, they must take a placement test to determine their appropriate language level. Placement testing is conducted by the Centre for Teaching English as a Second Language, the Department of English, and the Département d'études françaises.
Depending upon the results of the placement test, students will either follow sequence (a) or sequence (b) noted below. Students may be exempted from one or more of the courses listed in the sequence but must complete the balance of the sequence in order to satisfy the University writing skills requirement.
a) Passing ENGL 206 and ENGL 207, to be followed by passing ENGL 212 with a "C-" or better;
b) Passing ESL 207, ESL 208, and ESL 209, to be followed by the sequence of courses offered by the Department of English, specifically ENGL 206 and ENGL 207, then passing ENGL 212 with a "C-" or better.
*Students in Journalism programs satisfy the requirement by achieving a grade of "C-" or better in JOUR 201.

### 16.3 Evaluation, Grading System, Examinations, and Performance Requirements

16.3.1

Evaluation
16.3.2

Language of Instruction and Examinations
16.3.3

Grading System

A university degree certifies that its holder has attained a measurable level of achievement as established by a recognized system of evaluation. Thus the performance of each student in each course must be evaluated by the instructor or instructors responsible for the course.
Final grades are determined by students' performance on one or more of the following:

1. Assigned work, term papers, projects, etc.
2. Class participation which, in certain disciplines, may justify an attendance requirement
3. Progress tests
4. Laboratory tests and/or laboratory work
5. Mid-term and/or final examinations
6. Level of written expression.

The weight accorded to the various elements is at the discretion of the instructor or instructors responsible for the course.
At the beginning of a course the instructor will provide students with the evaluation scheme in writing. The scheme cannot be altered without appropriate notice.
Normally, an instructor will submit final grades no later than seven days after the scheduled final examination in a course or, where there is no final examination, seven days after the last scheduled class in a course. In the case of grades for potential graduates at the end of the Winter Term, instructors are asked to submit grades within three days. There may be additional delays before grades are posted as approvals of the grades and processing time are necessary. Students may obtain their grades by calling CARL - Concordia Automated Response Line at (514) 275-2275, by accessing the Touch Screens on campus, or through the Concordia Web Site at www.myconcordia.ca.
Final grades are official only when they have been approved by the appropriate Faculty Dean or delegate and posted by the Office of the Registrar. The University reserves the right to make corrections at any time in case of error.

While courses at Concordia University are normally taught in English, if students prefer, they may write assignments and examinations in either English or French. However, language and literature courses may require assignments and examinations to be written in the language being studied. Students who wish to write in French should ask at the beginning of a course whether their instructor can read French or whether someone else will evaluate their work. If the work must be read by another person, extra time may be needed.

At the end of each course, the instructor will submit a letter grade for every student registered. Using the grade point equivalents listed below, Grade Point Averages (GPA) are calculated for the evaluation of academic achievement, Honours standing, prizes, and academic standing.

|  | Grade | Grade Points |  |
| :---: | :---: | :---: | :---: |
|  | $\left.\begin{array}{l}A+ \\ A \\ A-\end{array}\right\}$ | $\left.\begin{array}{l} 4.30 \\ 4.00 \\ 3.70 \end{array}\right\}$ | Outstanding |
|  | $\left.\begin{array}{l}\text { B+ } \\ B \\ B-\end{array}\right\}$ | $\left.\begin{array}{l} 3.30 \\ 3.00 \\ 2.70 \end{array}\right\}$ | Very Good |
|  | $\left.\begin{array}{l} \mathrm{C}+ \\ \mathrm{C} \\ \mathrm{C}- \end{array}\right\}$ | $\left.\begin{array}{l} 2.30 \\ 2.00 \\ 1.70 \end{array}\right\}$ | Satisfactory |
|  | $\left.\begin{array}{l} D+ \\ D \\ D- \end{array}\right\}$ | $\left.\begin{array}{l} 1.30 \\ 1.00 \\ 0.70 \end{array}\right\}$ | Marginal Pass |
|  | F, FNS | 0 | Poor - Failure |
|  | R | 0 | Very Poor - Failure |
| Grade Not Reported |  | 0 |  |

Grade Not Reported (NR) 0

Passing courses required to fulfil curriculum requirements is not sufficient to graduate as there is also an academic performance requirement (Grade Point Average) in most degree and certificate programs. See the pertinent section of each Faculty's entry in the Calendar for complete details:

| Faculty of Arts and Science | Section 31 |
| :--- | :--- |
| John Molson School of Business | Section 61 |
| Faculty of Engineering and Computer Science | Section 71 |
| The Faculty of Fine Arts does not have a Grade Point Average requirement for graduation. |  |

16.3.4

Failing Grades and Administrative Notations
16.3.5

Administrative
Notations "DNE", "DISC", "DNW", "INC", "MED", "DEF", "REPT"

Failing Grades "F", "FNS", "R", and "NR" notations

1. " F " indicates failure in a course in which a supplemental examination is available.
2. "FNS" indicates failure in a course in which no supplemental examination is available.
3. In a course graded " R ", a student is not permitted to write a supplemental examination, apply for a "MED" or "DEF" notation, or complete work late.
4. Not Reported "NR" indicates that a student appears to have unofficially withdrawn from a course. It is assigned by the Registrar when no material is available to evaluate and the instructor has been unable to submit a grade. "NR" carries a grade point value of zero and counts as a failure.
In a course with an "NR", a student is not permitted to apply for a "MED" or "DEF" notation, write deferred or supplemental examinations, or complete work late.
5. Did Not Enter "DNE" is a temporary notation indicating that a student has officially withdrawn from a course by the deadline for withdrawal with tuition refund. The course and DNE notation are subsequently removed from a student's record.
6. Discontinued "DISC" indicates that a student has properly withdrawn from a course after the end of the course-change period. The notation appears permanently on academic records and official transcripts. It carries no grade point value and does not count in assessments of academic standing.
7. Did Not Write "DNW" indicates that a student has not written the final examination for a course. The notation is used only in combination with a letter grade (such as "F/DNW", "B/DNW"). A student in good standing may write a supplemental examination (if available) in a course with a "DNW" unless the grade is "R/DNW" or "FNS/DNW".
For information on how to apply for supplemental examinations and the regulations which govern them, see §16.3.7 III.
8. Incomplete "INC" indicates that a student has not completed required course work, such as a term paper, assignment, or laboratory and that the instructor has agreed to accept the work after the due date. The notation is used only in combination with a letter grade (such as "F/INC", "C/INC") and is assigned on the basis that the missing work is weighted as zero. When appropriate, "DNW" and "INC" can be used simultaneously (e.g. "F/INC/DNW"). For information on how to apply to complete courses with an "INC" notation, and the regulations which govern late completion, see §16.3.6.
9. Deferred "DEF" indicates that a student has been unable to write a final examination because of short-term illness or circumstances beyond the control of the student, or was obliged to be absent for some other compelling reason (including religious reasons). A "DEF" notation carries no grade point value.
For information on how to apply for "DEF" notations and the regulations which govern them, see §16.3.7 I.
10. Medical "MED" indicates that a student has been unable to write a final examination or complete other assignments due to a long-term medical situation. A "MED" notation carries no grade point value.
For information on how to apply for "MED" notations and the regulations which govern them, see §16.3.7 II.
11. Repeat "REPT" indicates that the credit earned for this course cannot be retained because it is a repetition of a course or of similar course material.
12. The deadlines for completion of course assignments are given to students on the first day of class. The "INC" notation is assigned when an instructor has agreed that a student may complete work after the deadline.
13. A student with an " $R$ " grade or " $N R$ " notation in a course may not apply for late completion in that course.
14. Students must apply for late completion of a course. Applications for Late Completion are available at the Birks Student Service Centre. For each course there is a charge of $\$ 15$.

Completed applications must be returned to the Birks Student Service Centre by:
February 1: Fall-term courses
May 15: $\quad$ Winter and Fall/Winter courses
September 1:
Summer-session courses
4. The completed work must be submitted by:

| February 15: | Fall-term courses |
| :--- | :--- |
| May 30: | Winter and Fall/Winter courses |
| September 15: | Summer-session courses |

5. It is the responsibility of the instructor to submit a final grade within five days of these dates.
16.3.7

Deferred "DEF",
Medical "MED"
Notations and
Supplemental
Examinations -
Procedures and
Regulations
I. Deferred "DEF" Notations

1. A student who has missed a final examination because of short-term illness; circumstances beyond his or her control; or who has been obliged to be absent for some other compelling reason (including religious reasons) can apply to have his or her original grade replaced by a temporary "DEF" notation. The original grade assigned must include a "DNW" notation.
2. A "DEF" notation cannot be assigned in a course with an "R" or "NR" notation.
3. Application forms for "DEF" notations are available from the Birks Student Service Centre. A completed application must be submitted to the Birks Student Service Centre, not to the instructor, Department, or Faculty, by January 15 for Fall courses (/2), May 15 for Fall/Winter courses (/3 and /4) or August 31 for Summer courses (/1). The application should be accompanied by a medical certificate on a physician's original letterhead for medical situations or, if the reasons are not medical, by other appropriate documents indicating that the student was unable to write an examination on the day or days in question. If the required documentation is not available before the application deadline, the student should submit the request form and provide the supporting material as soon as possible.
4. The application for a "DEF" notation must be accompanied by a $\$ 15$ per course processing fee.
5. The Registration and Examinations Office is entitled to ask the student to provide additional medical information. In such cases the student will be supplied with a form to be completed by his or her physician.
6. When the Registration and Examinations Office approves the awarding of the "DEF" notation, it will temporarily replace the student's original grade for the course or courses concerned. The student is then entitled to write a deferred examination. For information about deferred examinations, see §16.3.9 II.
7. When the deferred examination has been completed and evaluated, a new grade will replace the "DEF" notation.
8. When a student receiving the privilege of writing a deferred examination does not write the examination during the specified period, the privilege will be withdrawn and a final grade in the course will be recorded by the Office of the Registrar according to the grade achieved by the student before the "DEF" notation was granted.
9. When a student repeatedly submits medical certificates, the University reserves the right to refer him or her to a physician appointed by the University for a recommendation.
II. Medical "MED" Notations
10. A student who has missed a final examination due to a long-term medical situation can apply to have his or her original grade replaced by a "MED" notation. The original grade must include the "DNW" notation.
11. A "MED" notation cannot be assigned in a course with an " R " grade or "NR" notation.
12. Application forms for "MED" notations are available from the Birks Student Service Centre. A completed application should be submitted to the Birks Student Service Centre, not to the instructor, Department, or Faculty, by January 15 for Fall courses (/2), May 15 for Fall/Winter courses (/3 and /4), or August 31 for Summer courses (/1). The application should be accompanied by a medical certificate on a physician's original letterhead indicating that a long-term medical situation prohibited the student from being able to complete the final examination on the day or days in question. If the required documentation is not available before the application deadline, the student should submit the request form and provide the supporting material as soon as possible.
13. The application for a "MED" notation must be accompanied by a $\$ 15$ per course processing fee.
14. The Registration and Examinations Office is entitled to ask the student to provide additional medical information. In such cases the student will be supplied with a form to be completed by his or her physician.
15. When the Registration and Examinations Office approves the acceptance of a medical certificate, the notation "MED" will replace the student's original grade for the course or courses concerned. For information about "MED" replacement examinations, see §16.3.9 II.
16. When the replacement examination or missing work has been completed and evaluated, a new grade will replace the "MED" notation. If the student does not write a replacement examination
or complete the missing work, the "MED" notation will appear permanently on his or her record and transcript (e.g. "MED/DNW" or "MED/INC"). "MED" notations carry no grade point value. Courses with "MED" notations are not included in assessments of academic standing.
17. When a student repeatedly submits medical certificates, the University reserves the right to refer him or her to a physician appointed by the University for a recommendation.
III. Supplemental Examinations - Regulations
18. Each Faculty determines for which of its courses a supplemental examination is offered.
19. A student must be in acceptable standing in order to write a supplemental examination.
20. A student is permitted to write only one supplemental examination for a course, whether or not the course is being repeated.
21. A student who has received a passing grade for a course may not write a supplemental examination for that course.
22. A student who has received an "NR" or "R" grade may not write a supplemental examination for that course.
23. Applications to write supplemental examinations are available from the Birks Student Service Centre. A completed application should be submitted to the Birks Student Service Centre, not to the instructor, Department, or Faculty, by June 15 for Fall/Winter courses ( $/ 2, / 3$ and $/ 4$ ), September 16 for Summer courses (/1) or February 1 for Graduating students (Fall-term courses [/2] only).
24. The application for a supplemental examination must be accompanied by a $\$ 25$ fee for each course. The supplemental fee is refundable only if the student is denied permission to write the supplemental.
I. General
16.3.8

Academic Re-evaluation

1. Concordia University affirms the right of students to request the re-evaluation of course work which includes tests, examinations, essays and other work that has contributed to the grading of a course. It is assumed that initiating a formal re-evaluation ("a re-evaluation request") is a last recourse, taken when prior and sincere attempts to resolve problems and disagreements informally and directly have failed.
2. Students have the right to see their course work. Students are responsible for the preservation of any material, in its entire and original form, which has been returned to them. A re-evaluation request may be refused if this material is not available.
3. Instructors are responsible for the preservation of course work that has not been returned to students as follows: until December 31 of the next calendar year for Fall-term courses; until April 30 of the next calendar year for Fall/Winter and Winter-term courses; and until August 31 of the next calendar year for Summer-term courses.
4. In cases where grades are received for activities other than written or artistic course work, such as class participation, oral presentations, oral examinations and performance, no re-evaluation is normally possible. However, every attempt shall be made by the instructor concerned and the Chair of the Department to address the concerns raised by the student.
5. The grounds for a re-evaluation request are restricted to claims that i) a miscalculation of the grade occurred; or ii) the evaluation of the work was demonstrably unfair.
6. A grade may be maintained, raised or lowered as a result of a re-evaluation request.

## II. Procedure

7. Students who are dissatisfied with the grade received on one or more pieces of course work shall first attempt to meet with the instructor and explain their position. If the student remains dissatisfied or is unable to meet with the instructor, he or she may, upon receiving the final grade for the course, make a re-evaluation request.
8. A re-evaluation request shall be made on an "Academic Re-evaluation Request" form available at the Birks Student Service Centre. The student shall specify the reasons for seeking the re-evaluation and shall indicate what informal attempts towards re-evaluation have been made. A processing fee must accompany the request. (See the Tuition and Fees section of this Calendar for the current fee).
9. A re-evaluation request with respect to a Fall-term course must be made no later than the following February 1 ; with respect to a Fall/Winter or Winter-term course, no later than the following June 15 and with respect to a Summer-term course, no later than the following October 1. These deadlines may be extended by the Registrar in particular cases if the student can provide evidence that he or she was unable to have acted within the deadlines.
10. The Registrar shall forward the re-evaluation request to the Chair of the appropriate Department.
11. The Chair shall decide whether the re-evaluation request conforms to the criteria outlined in articles 4 and 5 above within ten (10) days of receiving the re-evaluation request.
12. If the Chair decides that the re-evaluation request does not conform to the criteria outlined in articles 4 and 5 above, he or she shall communicate this decision with reasons, in writing, to
the student with a copy to the Registrar. Should the student disagree with this decision, he or she has the right to appeal the Chair's decision to Re-evaluation Appeals Panel as set out in article 25 below.
13. Requests for review or other consideration which do not conform to the grounds for a re-evaluation request may fall under the purview of the Chair, the Dean, the Student Request Committee or other mechanisms.
14. If the Chair decides that the re-evaluation request conforms to the criteria outlined in articles 4 and 5 above, he or she shall appoint a re-evaluator whose name shall be communicated to the student and to the instructor concerned. Normally, the re-evaluator shall not be an instructor in whose course the student is registered at that time.
15. Before the re-evaluation begins, the instructor shall provide the Chair with information regarding the nature and structure of the course as well as the evaluation criteria and methods used. The Chair shall communicate this information to the re-evaluator.
16. The entire piece of work identified by the student shall be re-evaluated. The re-evaluator may request additional input from the student or the instructor.
17. The re-evaluation shall normally be completed within thirty (30) days of the Chair's decision that the re-evaluation shall proceed. If it becomes clear that the thirty (30) day delay cannot be met, the Chair shall immediately communicate this information to the student in order to determine whether any serious difficulties may arise from extending the delay.
In the case where the thirty (30) day delay is extended, every effort shall be made to remedy any academic disadvantage that the student may experience as a consequence of the extension of the delay.
18. Upon completion of the re-evaluation, the re-evaluator shall assign a grade to the work in question and shall forward the re-evaluated material to the Chair along with a reasoned report. The reasoned report shall make mention of the documentation and methodology used.
The Chair shall communicate the re-evaluation decision, in writing, along with the reasoned report, to the student, the instructor and the Registrar, as well as whether the final grade for the course will be modified as a result of the re-evaluation decision.
19. In cases where there is a significant discrepancy between the original grade assigned and the grade assigned by the re-evaluator, the Chair may convene a meeting with the instructor and the re-evaluator in order to discuss the issue before communicating the decision to the parties concerned. If disagreement as to the discrepancy remains after the meeting, the re-evaluator's grade shall stand.
20. In cases where the re-evaluation decision reveals a generalized flaw in the original evaluation process, the Chair shall take appropriate steps to ensure that the grades of other students in the course are reviewed and modified if appropriate.
21. A final grade that is modified as a result of the re-evaluation shall be entered onto the student's academic record and transcript. If no appeal is filed, the modified grade shall permanently replace the original grade on the student's academic record and transcript. If an appeal is filed, an interim notation to the effect that the grade is "under appeal" shall accompany the grade until the final disposition of the case.

## III. Appeals

22. A permanent Secretary of the Re-evaluation Appeals Panel (RAP) (the Secretary) shall be appointed by the Secretary-General. The Secretary shall be responsible for the administrative functioning of the RAP and shall maintain the confidential files of the RAP.
23. A RAP of three (3) members, as well as a non-voting Chair, shall be selected by the Secretary for a given appeal. The RAP shall be composed of two (2) faculty members drawn from the Faculty Tribunal Pool and one (1) student drawn from the Student Tribunal Pool as provided for under the Policy for the Establishment of Tribunal Hearing Pools. Every attempt will be made to select the student member from the student's constituency (undergraduate or graduate status).
24. A student or instructor may appeal a re-evaluation decision based on either substantive grounds or on the presence of serious and prejudicial procedural defects. In the case of an appeal from an instructor, "prejudicial" shall be limited to the effect that the alleged procedural defect has on other students in the course or on the academic standards of the University. The appeal must state in clear and precise terms the grounds on which the appeal is based. Such an appeal must be made, in writing, to the Secretary within fifteen (15) days after the date of transmission of the re-evaluation decision.
25. A student may appeal a Chair's decision that the re-evaluation request did not conform to the criteria outlined in articles 4 and 5 above. This appeal may be based on either substantive grounds or on the presence of serious and prejudicial procedural defects in the Chair's consideration of the re-evaluation request. The appeal must state in clear and precise terms the grounds on which the appeal is based. Such an appeal must be made, in writing, to the Secretary within fifteen (15) days after the date of transmission of the Chair's decision.
26. Upon receipt of an appeal from a student, the Secretary shall send a copy to the Registrar, the Chair, the instructor and the re-evaluator, if appropriate, soliciting their input within ten (10) days.

Any input received within the ten (10) day period shall be forwarded to all parties, soliciting their comments on the input within a further ten (10) days. All input and comments received within the twenty (20) day period shall form part of the dossier submitted to the RAP.
Upon receipt of an appeal from an instructor, the Secretary shall send a copy to the Registrar, the Chair, the student and the re-evaluator, if appropriate, soliciting their input within ten (10) days. Any input received within the ten (10) day period shall be forwarded to all parties, soliciting their comments on the input within a further ten (10) days. All input and comments received within the twenty (20) day period shall form part of the dossier submitted to the RAP.
27. The RAP shall render a decision, based on the written record only, normally within thirty (30) days of the filing of an appeal. The RAP shall meet at least once in person before rendering its reasoned decision.
28. In the case of an appeal of a re-evaluation decision, should the RAP determine that serious and prejudicial procedural defects were present in the re-evaluation process or that there are substantive grounds necessitating a new re-evaluation, it shall instruct the Chair to arrange for a new re-evaluation.
29. Should the RAP decide that an appeal be upheld in the case of an appeal of a Chair's decision that the re-evaluation request did not conform to the criteria outlined in articles 4 and 5 above, it shall instruct the Dean to arrange for a re-evaluation independent of the relevant Chair.
30. The RAP shall communicate its signed, dated and reasoned decision to the student, the instructor, the re-evaluator (if appropriate), the Chair and the Registrar and shall include copies of all documentation considered.
31. The decision of the RAP is final.

## IV. Miscellaneous Provisions

32. The word "days" is defined as working days which excludes weekends, holidays and other days during which the University is closed. In the calculation of any delay set out in these procedures, the months of July and August shall not be taken into account. In the case of an appeal submitted to the RAP before July 1, the regular delays set out in these procedures shall apply.
33. Any written notice addressed to a student pursuant to Section III - Appeals under these procedures shall be sent by courier to the last address provided by the student to the University and shall be deemed to be received one (1) day after delivery.
34. If the course in question was taught by the Chair, the Dean shall assume all of the duties imposed on the Chair in these procedures. If the course in question does not form part of a department, the re-evaluation request shall be forwarded to the appropriate administrator responsible for the course.
35. The overall responsibility for the implementation and recommended amendments to these procedures shall rest with the Provost.

Students must present identification in order to write any examination. Acceptable identification is: Concordia student I.D. card; photo- and signature-bearing Medicare card or driver's license. Unless expressly permitted by the instructor, the possession of electronic communication devices is prohibited during examinations.

## I. Final Examinations

1. Academic Calendar $\S 11$ lists the official examination periods.
2. Examination schedules are posted outside H 110 (SGW Campus) and CC 214 (LOY Campus); on touch-screen terminals at AD 211 (LOY Campus) and outside H 110 (SGW Campus); on kiosks in the J.W. McConnell Library Building Atrium (SGW Campus); or through the Concordia Web Site at www.myconcordia.ca.
3. Since special arrangements cannot be made in the event of personal time conflicts, students should not make personal commitments for the examination periods until after the final schedule is posted. Nonetheless, in certain circumstances, a student who will not be in the Montréal area during the official final examination period can request to write his/her examination at another university or college.
4. A student who wishes to write at an external institution must submit a "Request to Write a Concordia University Exam at an External Institution" available from the Birks Student Service Centre. The completed request should be submitted to the Birks Student Service Centre within the following deadlines:
November 15: for December final examination period
April 1: $\quad$ for April-May final examination period
June 1: for June final examination period
August 1: for August final and replacement/supplemental examination period
Two weeks: prior to the date of the University Writing Test
5. The request must be accompanied by a $\$ 10$ per course processing fee.
6. Among the factors considered in the review of the request is the suitability of the testing location, testing conditions, and time constraints. The institution chosen must be an accredited university or college and the proctor/invigilator must be an employee of that institution and must agree to administer the exam(s) at the exact same date and time as scheduled at Concordia University and time differences must be taken into account.
7. The student is responsible for any fees that may be charged by the external institution.
8. When the final examination schedule indicates that a student has a "conflict", i.e. must write examinations in three consecutive time blocks (e.g. morning, afternoon and evening or afternoon, evening and morning or two at the same day and time), information is available on the touchscreens at AD 211 (LOY Campus) and outside H 110 (SGW Campus); on kiosks in the J.W. McConnell Library Building Atrium (SGW Campus); or through the Concordia Web Site at www.myconcordia.ca. The Registration and Examinations Office will make every effort to reschedule or defer one of the examinations provided they are advised by the deadline.
9. No candidate will be permitted to enter an examination room one hour after the examination period has begun, or to leave during the first hour of the examination.
10. If during the course of an examination a student becomes ill, the student should report at once to the invigilator, hand in the unfinished paper and request that the examination be cancelled. Before leaving the University, the student must also visit the Temporary Examinations Office location in order that a report of the situation may be filed. If physical and/or emotional ill-health is the cause, the student must then report at once to a physician/ counsellor so that subsequent application for a deferred examination is supported by medical documentation.
11. If a student completes an examination, even though he/she is ill or faced with other personal problems or situations, the subsequent grade obtained in the course must stand. Petitions on the grounds of illness will not be considered.
12. In the Fall and Winter terms, no tests or examinations are permitted in the final week of classes. Any exceptions must be approved in advance by the appropriate Faculty Council.
II. Deferred, Replacement and Supplemental Examinations - Regulations
13. Deferred Examinations
a) A student who did not write a final examination and has been granted a "DEF" notation is permitted to write a deferred examination.
b) A deferred examination counts for the same weight in the course evaluation scheme and covers the same course material as the original examination.
c) A student who does not write a deferred examination for medical or other valid reasons as identified in §16.3.7 may apply to write another deferred examination within the following deadlines:
January 15: for deferred examinations missed in October or December May 15: for deferred examinations missed in February or April August 31: for deferred examinations missed in June or August
d) A student who does not write either of the two scheduled deferred examinations for the same course for medical or other serious reasons, must repeat the course to obtain credit. Such students are not eligible to write a supplemental examination.
e) When a student does not write a deferred examination without acceptable medical or other valid reasons, no further examination, deferred or supplemental, will be scheduled.
f) When a deferred examination is not written, the original grade assigned in the course prior to the granting of the "DEF" notation will be re-instated on the student record and transcript.
g) When a deferred examination has been written and evaluated, the mark is added to the student's marks for other course work. The resulting final grade will replace the "DEF" notation on the student's academic record and transcript.
h) A student who fails a course after writing a deferred examination may have one opportunity to write a supplemental examination during the next scheduled supplemental examination period provided the original grade was not "FNS".
i) A student cannot write a deferred examination in a course with a grade of " R " or "NR".
14. Replacement Examinations
a) A student who did not write a final examination and has been granted a "MED" notation is permitted to write a replacement examination.
b) A replacement examination counts for the same weight in the course evaluation scheme and covers the same course material as the original examination.
c) A student who does not write a replacement examination for medical or other valid reasons may apply to write another replacement examination within the following deadlines:
January 15: for replacement examinations missed in October or December May 15: for replacement examinations missed in February or April
August 31: for replacement examinations missed in June or August
d) A student who does not write either of the two scheduled replacement examinations for the same course for medical or other serious reasons, must repeat the course to obtain credit. Such students are not eligible to write a supplemental examination.
e) When a student does not write a replacement examination without acceptable medical or other valid reasons, no further examination, replacement or supplemental, will be scheduled.
f) When a replacement examination is not written, the "MED" notation (e.g. "MED/DNW") will appear permanently on the student record and transcript.
g) When a replacement examination has been written and evaluated, the mark is added to the student's marks for other course work. The resulting final grade will replace the "MED" notation on the student's academic record and transcript.
h) A student who fails a course after writing a replacement examination, may have one opportunity to write a supplemental examination during the next scheduled supplemental examination period provided the original grade was not "FNS".
i) A student cannot write a replacement examination in a course with a grade of " R " or " NR ".
15. Supplemental Examinations
a) A student who applied for and satisfies all the requirements is permitted to write a supplemental examination.
b) Whether or not a supplemental examination is written, the original grade for the course ("F","F/DNW") will remain permanently on the student's academic record and transcript.
c) The grade for a supplemental examination is counted as a second attempt at the course. The grades from both attempts are included in calculating Grade Point Averages and assessments of academic standing.
d) A student who fails a supplemental examination is given a grade of " $R$ ". A student who does not write a supplemental examination is not assigned a second failing grade for the course.
e) A student who does not write a supplemental examination for medical, or other serious reasons, may re-apply to write the supplemental examination for that course during the next scheduled supplemental examination period. The deadline dates are as follows: January 15: for supplemental examinations missed in October
May 15: for supplemental examinations missed in February August 31: for supplemental examinations missed in August A student who does not write either of these supplemental examinations for medical or other serious reasons, must repeat the course to obtain credit.
f) John Molson School of Business and the Faculty of Engineering and Computer Science: There are no supplemental examinations available for courses offered in these Faculties, other than for COMP 201 and COMP 218.

## III. Deferred, Replacement and Supplemental Examination Periods

Deferred, replacement and supplemental examinations are written at various times throughout the year.

1. Deferred/Replacement Examinations
a) John Molson School of Business and Faculty of Engineering and Computer Science: Deferred examinations for courses offered in these Faculties are written the next time the course is offered. For potential graduates in Engineering and Computer Science, if there is no examination scheduled for the course in question in the semester before graduation, a deferred examination would be made available during the final examination period of that semester.
b) Faculties of Arts and Science, Fine Arts: Deferred examinations for courses in these Faculties are written during the next regular examination period provided the course is given in the next semester and that a final examination is scheduled. If there is no examination scheduled for the course in question in the subsequent examination cycle, the deferred examination would be scheduled during the next deferred examination period (February [mid-term break], August, October).
2. Supplemental Examinations
a) John Molson School of Business and Faculty of Engineering and Computer Science: There are no supplemental examinations available for courses offered in these Faculties, other than for COMP 201 and COMP 218.
b) Faculties of Arts and Science, Fine Arts: Supplemental examinations for Fall/Winter courses (/2,/3, and /4) are normally written in late August. For Summer session courses (/1) supplemental examinations are usually written in October. Graduating students may write supplemental examinations in February for Fall courses (/2) only.
3. In certain circumstances, a student who will not be in the Montréal area during the deferred, replacement or supplemental examination period can request to write his/her examination at another university or college. For information on writing examinations at an external institution, see §16.3.9.I.
16.3.10

Academic
Performance

## I. Performance Regulations

Students are required to maintain an acceptable standard of scholarship. Each student's academic standing is assessed at the end of every year, either on the basis of an Annual Weighted Grade Point Average (WGPA) as defined below, or for students in the Faculty of Fine Arts, on the basis of the ratio of credits failed to credits passed.
The specific regulations applicable to students registered in each Faculty can be found in the following sections of the Calendar:

|  | See Calendar <br> Section | System <br> Faculty |
| :--- | :---: | :---: |
|  |  |  |
| Faculty of Arts and Science |  | WGPA |
| John Molson School of Business | 31.003 .1 | WGPA |
| Faculty of Engineering and Computer Science | 61.20 .5 | 71.10 .3 |
| Faculty of Fine Arts | 81.20 .4 | WGPA |
|  |  | No. of |
|  |  | Failures |

These regulations may be modified in the case of students transferring either between Faculties or from another university.

## II. Weighted Grade Point Average

## a) Annual Grade Point Average

An Annual Weighted Grade Point Average (WGPA) for each student is calculated at the end of each academic year (including the Summer, Fall and Winter terms), provided that the student has attempted a minimum of 12 credits. If the student has attempted fewer than 12 credits, these credits will be included in the assessment for the following academic year.
When a student transfers from one degree or certificate to another degree or certificate, the WGPA is calculated only for courses recorded in the current degree or certificate. Special regulations for graduating students may be specified in each Faculty's regulations.
Grades for supplemental and replacement examinations and for late completion of courses with "INC" or "MED" notations are included in the assessment period in which they are recorded.
In the Faculty of Engineering and Computer Science, prerequisite courses required for admission to a program will not be counted unless they are specifically listed on the student's acceptance letter.

## The WGPA is calculated as follows:

First, for each course attempted, the number of credits for the course is multiplied by the grade points obtained for the course, as specified in §16.3.3. Then, the sum of the grade points for all courses is divided by the total credits attempted.

$$
\text { WGPA }=\frac{\sum \text { (course credits } X \text { grade points) }}{\Sigma \text { (credits attempted) }}
$$

$\Sigma=$ sum of
Example:

|  | Grade | Credit |  | Grade | Weighted Grade Points |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Achieved | Value |  | Points* |  |  |
| 1 | D | 3.00 | X | 1.00 | = | 3.00 |
| 2 | C+ | 3.00 | X | 2.30 | = | 6.90 |
| 3 | B | 2.00 | X | 3.00 | = | 6.00 |
| 4 | A- | 6.00 | X | 3.70 | $=$ | 22.20 |
| 5 | F | 3.00 | X | 0.00 | = | 0.00 |
|  | Total Credits | 17.00 |  |  | Total Weighted | 38.10 |

$$
\text { WGPA }=\frac{38.10}{17.00}=2.24
$$

* As detailed in §16.3.3


## b) Cumulative Grade Point Average

This is the running total of the GPA since a student was admitted to the most recent degree (or certificate) program. It includes the same courses as were included in the calculation of the Annual Weighted Grade Point Average, but it does not include the grade point weighting of courses which were completed in an earlier program, for which "transfer credit" has been awarded in the new program.

## c) Final Graduation Grade Point Average

This is a cumulative GPA of all courses applicable to the new degree program being completed to which special rules apply. For example, additional credits in extended programs are not normally included in any calculation, and repeated courses and transferred courses are treated differently than they are in the Annual or Cumulative GPA calculations. In the case of transfer students, all courses taken at Concordia will be included in calculating the Graduation GPA, except in the Faculty of Engineering and Computer Science, where only courses which are part of the degree program are taken into account. This GPA is calculated and recorded on the record only when a student graduates. The Final Graduation GPA is used as the basis to determine eligibility for High Academic Achievement (§16.3.11).

## III. Qualifying Programs and Visiting Students

Students registered in Qualifying Programs or as Visiting students are subject to the regulations of the Faculty in which they are registered.

## IV. Independent Students

1. Independent students are subject to the same Grade Point Average requirements as students registered in programs offered by the Faculty of Arts and Science. (See §31.003.1)
2. Independent students who are classified as failed may not re-register without permission of the Registrar.
V. Regulations for Failed Students and Students in Conditional Standing
3. Failed students or students in conditional standing are not eligible to write supplemental examinations.
4. Undergraduate students who are classified as failed may not re-register as Independent students.

## VI. Recording of Failed and Conditional Standing

Failed standing is noted on the student's academic record and transcript. In the event that a student is subsequently readmitted, previous failed standing will appear only on the record. Conditional standing is noted on records only.
16.3.11

High Academic Achievement
3.12

Repetition of Courses

A degree "With Distinction" or "With Great Distinction" will be awarded to students who obtain Graduation Grade Point Averages (GGPA) of at least 3.40 or 4.00 respectively. The Graduation Grade Point Average is calculated over courses taken in the regular program, as determined by guidelines of the Office of the Registrar. Additional credits in extended programs are not normally included in any calculation. In the case of transfer students, all courses taken at Concordia will be included in calculating the Graduation GPA.

1. In general, a student may repeat a failed course only once. However, a student who fails a required course twice may appeal to the appropriate Student Request Committee for permission to take the course a third time or for permission to replace the course with another. Unless permission is granted, the student will not be allowed to continue in the University towards that program and/or degree.
2. A student who has received a passing grade for a course may repeat the course for personal reasons (e.g. to meet an external requirement). The student's record and transcript will include both grades but the second grade with the "REPT" notation will carry no credit value. The original grade for the course will be used for calculating the Graduation GPA and the Cumulative GPA. For students in the Faculty of Engineering and Computer Science who have been required to repeat courses graded "D", both grades are included in the Graduation GPA.
3. A student who fails a required course must repeat the course during the next session for which she or he registers. If a student fails a required course in the Summer Session and a supplemental examination is available, re-registration for the course may be postponed until after the supplemental examination period for summer-session courses.

## I. Preamble

16.3.13

Code of Conduct
(Academic)

## Introduction

1. The integrity of University academic life and of the degrees, diplomas and certificates the University confers is dependent upon the honesty and soundness of the instructor-student learning relationship and, in particular, that of the evaluation process. As such, all students are expected to be honest in all of their academic endeavours and relationships with the University.

## Jurisdiction

2. For the purposes of this Code, the student need only have been a student at the time of the alleged offence.
3. If, prior to the initiation of any proceedings under this Code, the student has graduated, the proceedings shall continue.

## Ambiguity

4. Wherever there is doubt or ambiguity regarding any provision of this Code or the procedure to be followed, that interpretation or procedure which appears to be most equitable and consistent with the general purposes and philosophy of this Code shall be adopted. Except for those terms specifically defined in this Code, the terms used shall have their usual meanings.

## II. Definitions

## Student

5. Student is defined as:
a. any person registered in the University whether for courses or research and whether or not a candidate for a degree, diploma or certificate;
b. persons once registered in the University who are under suspension from the University;
c. persons registered during a preceding academic term.

## Days

6. Days is defined as working days which excludes weekends, holidays and other days during which the University is closed.

## Dean

7. Dean is defined as:
a. the Dean of the Faculty offering the program in which the student is registered; or b. if the student is not registered in a program, the Dean of the Faculty providing the course concerned or in the event that the offence is not related to a particular course, the Dean of the Faculty providing the most credits on the student's record; or
c. if the student is a graduate student, the Dean of Graduate Studies and Research.

The Dean may delegate an Associate or Vice-Dean to fulfil any of his or her obligations under this Code. If the course concerned is taught by the Dean, the Provost shall assume all of the duties imposed on the Dean in this Code.

## Invigilator

8. Invigilator means an instructor or any other person who is charged with supervising an evaluative exercise.

## Examination

9. Examination means any evaluative exercise including tests, quizzes and like assignments as well as site supervised examinations and non-site supervised examinations as outlined in articles 18 and 19 of this Code.
III. Offences
10. Any form of cheating, plagiarism, personation, falsification of a document as well as any other form of dishonest behaviour related to the obtention of academic gain or the avoidance of evaluative exercises committed by a student is an academic offence under this Code.
11. Any attempt at or participation related in any way to an academic offence is also an offence under this Code and shall be dealt with in accordance with the procedures set out in this Code.
12. Without limiting the generality of article 10 above, academic offences include, but are not restricted to, the carrying out or attempting to carry out or participating in:
a. personation - assuming the identity of another person or having another person assume one's own identity;
b. plagiarism - the presentation of the work of another person as one's own or without proper acknowledgement;
c. the contribution by one student to another student of work with the knowledge that the latter may submit the work in part or in whole as his or her own;
d. multiple submission - the submission of a piece of work for evaluative purposes when that work has been or is currently being submitted for evaluative purposes in another course at the University or in another teaching institution without the knowledge and permission of the instructor or instructors involved;
e. the obtention by theft or any other means of the questions or answers of an examination or of any other University-related resource that one is not authorized to possess;
f. the possession or use during an examination of any non-authorized documents or materials or possessing a device allowing access to or use of any non-authorized documents or materials;
g. the use of another person's examination during an examination;
h. communication with anyone other than an invigilator during an examination or the obtention of any non-authorized assistance during an examination;
i. tearing or mutilating an examination booklet, inserting pages into a booklet or taking a booklet from the examination room;
j. the falsification of a document, in particular a document transmitted to the University or a document of the University, whether transmitted or not to a third party, whatever the circumstances;
k. the falsification of a fact or research data in a work including a reference to a source which has been fabricated. Falsification shall not include those factors intrinsic to the process of academic research such as honest error, conflicting data or differences in interpretation or judgement of data or of experimental design.

## IV. Procedures

## Provisions Governing Examinations

13. It is the duty of an invigilator to take action under the following articles when he or she becomes aware of any suspected academic offence.
14. Every examination paper shall expressly list the materials and equipment that a student is permitted to have and use during the examination and shall indicate any special conditions relating to the examination.
15. Except if expressly authorized by the invigilator, a student may not speak or otherwise communicate with any person other than an invigilator.

## Centrally Supervised Examinations

16. Where an examination is supervised by the Office of the Registrar or where another central supervisory function is available to deal with allegations of offences related to examinations, a student who is suspected of an academic offence shall be so informed by the invigilator and shall be required to leave the examination area.
17. The student shall be requested, in a written statement, to choose one of the following options: a. to withdraw from the examination with the understanding that if the charge is dismissed, the student shall be permitted to take another examination for the same course at a mutually agreed upon time but no later than one calendar year from the date of the filing of the Incident Report;
b. to continue the examination under controlled conditions in another location in which case the invigilator shall provide a fresh examination booklet and shall allow additional time for the examination to compensate for any time lost. The student shall continue the examination from the point at which he or she was required to leave the examination area.
18. Should the student not indicate a choice, he or she shall be considered to have chosen to withdraw from the examination. Until such time as the student has indicated that he or she has chosen to withdraw from the examination or is deemed to have done so, he or she remains under examination conditions.
19. The invigilator shall file an Incident Report with the Dean, as defined in article 7 of this Code, and shall include the student's examination booklet as well as any other evidence related to the suspected academic offence. The invigilator may not, on his or her own authority, impose a sanction on the student.

## Other Examinations

20. Where an examination is not supervised by the Office of the Registrar or where another central supervisory function is not available to deal with allegations of offences related to examinations, a student who is suspected of an academic offence shall be so informed by the invigilator and shall be required to leave the examination area immediately. The invigilator shall file an Incident Report with the Dean, as defined in article 7 of this Code, and shall include the student's examination booklet as well as any other evidence related to the suspected academic offence. The invigilator may not, on his or her own authority, impose a sanction on the student.

## Non-Examination Related Offences

21. An instructor who, in the course of grading a student's work or through any other means, has reasonable grounds to believe that a student in the instructor's course or working under his or her direction has committed a non-examination related offence shall complete a Code of Conduct (Academic) Incident Report ("Incident Report"). The instructor shall forward the Incident Report to the Dean, as defined in article 7 of this Code. The instructor may not, on his or her own authority, impose a sanction on the student. Pending the final outcome of any proceedings under this Code, the instructor shall withhold the grade for the course, if applicable.
22. Any administrator of the University who to his or her personal knowledge or upon reliable report has reasonable grounds to believe that a student has committed a non-examination related offence shall complete an Incident Report. The administrator shall forward the Incident Report to the Dean, as defined in article 7 of this Code. The administrator may not, on his or her own authority, impose a sanction on the student.

## Interviews

23. Upon receipt of an Incident Report, the Dean shall send a copy to the student, the Registrar and the Secretary of the Academic Hearing Panel and shall indicate whether he or she intends
to interview the student to inquire into the alleged offence or whether the Incident Report is being transmitted directly to an Academic Hearing Panel. The Dean shall, as well, include a copy of this Code.
24. Should the Dean decide to interview the student, the interview shall take place within fifteen (15) days of the Dean's receipt of the Incident Report. Whenever possible, five (5) days notice shall be given to the student before the interview. In convening the interview with the student, the Dean shall inform the student of his or her right to consult any person and to be accompanied or represented by a student advocate from Advocacy and Support Services or any other member of the University community.
25. At the outset of the interview, the Dean shall inform the student that he or she is not obliged to answer any of the Dean's questions and that any answers given may become the basis for an immediate disposition of the case under article 26 or cause the Dean to refer the case to an Academic Hearing Panel or be the subject of testimony by the Dean at any subsequent proceeding.
The standard of proof to be relied upon by the Dean shall be one of a "preponderance of evidence" as defined in article 40.
26. Within ten (10) days from the conclusion of the interview, the Dean shall write to the student indicating his or her decision to dismiss the charge or to impose one or more of the following sanctions:
a. Reprimand the student;
b. Direct that a piece of work be re-submitted;
c. Enter a failing grade for the piece of work in question or for the course, if applicable;
d. Enter a failing grade and ineligibility for a supplemental examination or any other evaluative exercise for the course;
e. Impose the obligation to take and pass courses of up to twenty-four (24) credits in addition to the total number of credits required for the student's program as specified by the Dean. If the student is registered as an Independent student, the sanction will be imposed only if he or she applies and is accepted into a program;
f. Impose specified community service at the University of up to ten (10) hours per week for a specified period of time;
g. Refer the case to an Academic Hearing Panel.

In the case of a student who has graduated, the only two available sanctions are i) a notation on the student's academic record that he or she has been found guilty of academic misconduct; or ii) a recommendation to Senate for the revocation of the degree obtained.
Where the Dean has decided to dismiss the charge, the Dean shall direct the instructor to submit a grade for the course in question, if applicable.
27. In the case of a sanction imposed by the Dean under article 26, the letter to the student shall inform him or her of the right to obtain a full hearing before an Academic Hearing Panel by notifying the Secretary of the Academic Hearing Panel (the Secretary) within ten (10) days after the date of transmission of the Dean's decision. A copy of the Dean's letter shall be sent to the Secretary, the Registrar and the instructor, if applicable.
When the Dean has decided to dismiss the charge against the student, a copy of the letter dismissing the charge shall be sent to the Secretary.
28. Where the Dean has imposed a sanction under article 26 and the student has not elected to obtain a full hearing under article 27 , the Secretary shall, within a reasonable time, so notify the Dean and the Dean shall file a report with the Registrar containing the following:
a. identification of the student concerned;
b. a statement of the facts and findings;
c. a statement of the course of action taken;
d. a statement to the effect that the student concerned was notified in writing of the action taken and of his or her right to a full hearing before an Academic Hearing Panel. Such report shall form a part of the student's permanent file maintained by the Registrar.
29. When the student has elected to obtain a full hearing under article 27 , the execution of any decision of the Dean shall be suspended pending disposition by an Academic Hearing Panel. In such cases, the imposition of the sanction of a failing grade shall not be taken into account when calculating the student's grade point average.
30. When the Dean has decided not to interview the student and to transmit the Incident Report directly to an Academic Hearing Panel such transmission shall take place within fifteen (15) days of receipt of the Incident Report.

## Composition of the Academic Hearing Panels

31. A permanent Secretary of the Academic Hearing Panel (the Secretary) shall be appointed by the Secretary-General. The Secretary shall be responsible for the administrative functioning of the Academic Hearing Panel and shall maintain the confidential files and the recordings of the Academic Hearing Panel.
32. An Academic Hearing Panel (AHP) of five (5) members, as well as a non-voting Chair, shall be selected by the Secretary for a given hearing. The AHP shall be composed of three (3) faculty members drawn from the Faculty Tribunal Pool and two (2) students drawn from the Student Tribunal Pool provided for under the Policy on the Establishment of Tribunal Hearing Pools. Every attempt will be made to select at least one (1) faculty member and one (1) student from the student's constituency (i.e. by faculty and undergraduate or graduate status).

## Procedures Before an Academic Hearing Panel

33. Once a matter has been referred to the Secretary, he or she shall convene an AHP to hear the matter. Thereafter, the Secretary shall be responsible for all communications with the parties.
34. A hearing shall be convened as soon as possible after the receipt by the Secretary of the notification and normally within fifteen (15) days. The instructor, if applicable, shall be sent a copy of the notice of hearing. Once a hearing date is fixed by the Secretary, the parties shall submit any documentation they wish considered to the Secretary no later than ten (10) days before the scheduled hearing date. Such documentation shall include any supporting documents and a list of the witnesses, if any, that will appear. The Secretary shall transmit the documentation, together with a list of the Panel members selected for the case, to the parties no later than five (5) days before the scheduled hearing date.
35. Either party may object to the participation of a Panel member on the grounds of potential bias. A reasoned objection shall be filed with the Secretary who shall arrange for an alternate Panel member to serve if he or she determines that the objection is well-founded. If the Secretary feels that the objection is frivolous and the matter cannot be resolved, the issue shall be forwarded to the Chair of the AHP who shall render a final decision in this regard.

## The Hearing

36. The AHP shall establish its own rules of procedure. Minimally, these rules shall provide for opening statements by the parties, evidence and witnesses called by the parties (expert or otherwise), the right of cross-examination, questioning by members of the AHP, representations with respect to desired sanctions and closing statements. Hearings shall be recorded and the cassettes kept as part of the permanent record of the proceedings for a period of not less than five (5) years.
37. The role of the Chair shall be to preside over the proceedings, keep order and ensure fairness. The Chair shall, as well, preside over the deliberations of the AHP but shall not vote. Decisions shall be by majority vote. The hearing shall be closed unless both parties have consented in writing to the attendance of members of the University community.
38. The instructor in the course in which the offence took place, if applicable, may be present throughout the hearing or may be called as a witness by either of the parties.
39. If the student fails, without reasonable excuse, to attend the hearing, the hearing may proceed in the student's absence or, at the Chair's discretion the start of the hearing may be postponed. If the hearing proceeds in the student's absence, all rights contingent on the student's presence, with the exception of the right to have an advocate present to plead for postponement, are forfeited. In such a case, a student's right of appeal is limited to a consideration of the reasonableness of his or her excuse for not appearing. If an Appeals Panel finds that the excuse is reasonable, it shall order a new hearing by a new AHP with the student present. The decision of the new hearing with the student present is appealable as if it were a first hearing.
40. The decision of the AHP shall be signed, dated and reasoned. The standard of proof to be relied upon by the AHP shall be one of a "preponderance of evidence". A "preponderance of evidence" standard means that the individual alleging wrongdoing must establish that his or her version of the facts is significantly more probable. This standard is less rigorous than the standard of "beyond a reasonable doubt" required under criminal law.

## Sanctions

41. Within ten (10) days from the conclusion of the hearing, the AHP shall write to the student and the Dean, with a copy to the Registrar and the instructor, if applicable, indicating its decision to dismiss the charge against the student or to impose one or more of the following sanctions:
a. a written reprimand;
b. a piece of work be re-submitted;
c. specified community service at the University of up to ten (10) hours per week for a specified period of time;
d. a failing grade for the piece of work in question or for the course, if applicable;
e. a failing grade and ineligibility for a supplemental examination or any other evaluative exercise for the course;
f. the obligation to take and pass courses of up to twenty-four (24) credits in addition to the total number of credits required for the student's program as specified by the AHP. If the student is registered as an Independent student, the sanction will be imposed only if he or she applies and is accepted into a program;
g. suspension for a period not to exceed six (6) academic terms. Suspensions shall entail the withdrawal of all University privileges, including the right to enter and be upon University premises;
h. expulsion from the University. Expulsion entails the permanent termination of all University privileges.
In the case of a student who has graduated, the only two available sanctions are i) a notation on the student's academic record that he or she has been found guilty of academic misconduct; or ii) a recommendation to Senate for the revocation of the degree obtained.
42. A sanction of suspension or expulsion is subject to confirmation by the Provost.
43. Any student found to have committed a second academic offence shall be expelled from the University subject to confirmation by the Provost.
44. The decision of the AHP shall inform the parties of their right to seek an appeal from an Appeals Panel within fifteen (15) days after the date of transmission of the AHP decision.
45. Where neither the Dean nor the student has sought an appeal from an Appeals Panel within the stipulated delay, the Secretary shall so inform the Registrar including a statement to the effect that the Dean and the student concerned were notified in writing of the action taken and of their right to seek an appeal from an Appeals Panel. Such report shall form a part of the student's permanent file maintained by the Registrar. This notification shall be sent to the Dean and the student, and the members of the AHP who presided at the hearing of the case.
46. The execution of any sanctions by an AHP shall be suspended until the expiry of the delay to seek an appeal or until the rendering of the decision by an Appeals Panel if an appeal is heard. In such cases, the imposition of the sanction of a failing grade shall not be taken into account when calculating the student's grade point average.

## Appeals

47. An Appeals Panel of three (3) members, as well as a non-voting Chair, shall be selected by the Secretary for a given appeal. The Appeals Panel shall be composed of two (2) faculty members drawn from the Faculty Tribunal Pool and one (1) student drawn from the Student Tribunal Pool. Every attempt will be made to select the student member from the student's constituency (undergraduate or graduate status).
48. Should either the student or the Dean wish to seek an appeal from a decision or sanction of an AHP, he or she shall apply in writing to the Secretary for the authorization to seek an appeal within fifteen (15) days after the date of transmission of the AHP decision. An Appeals Panel shall decide whether an appeal shall be heard having regard to the circumstances of each case.
49. Such request for authorization to appeal may be based only on the grounds of discovery of new evidence following the rendering of the decision of the AHP or on the presence of serious and prejudicial procedural defects. The request shall state in clear and precise terms the grounds on which the appeal is based. The Appeals Panel shall be provided with the complete file of the AHP and its decision shall be based on the written record only.
50. An Appeals Panel shall be convened as soon as possible after receipt of the authorization request by the Secretary and normally within fifteen (15) days. It shall normally render its decision with respect to the request within five (5) days of its consideration of the request.
51. If the authorization to appeal is granted, the appeal shall normally be heard within fifteen (15) days of the decision to authorize the appeal. Notification of such shall be sent to both parties.
52. The Appeals Panel has the authority to confirm, reverse or modify the decision being appealed. Further, should the appeal be based on the production of new evidence, the Appeals Panel may order a new hearing of the case by a new AHP.
53. The Appeals Panel shall normally render its decision within ten (10) days of the hearing. The decision of the Appeals Panel shall be signed, dated and reasoned and shall be sent to both parties, the Registrar, the instructor, if applicable, and the members of the AHP who presided at the hearing of the case.
54. The decision of the Appeals Panel shall be final.
55. In the case of the denial of an appeal where the sanction imposed by the AHP was suspension or expulsion, the suspension or expulsion shall be retroactive to the date of the original decision by the AHP and shall take effect from the date of the Appeals Panel decision.

## V. Miscellaneous Provisions

## Delays and Language

56. In the calculation of any delay set out in the Code, the months of July and August shall not be taken into account. In the case of a hearing before an AHP or an Appeals Panel that commenced before July 1 , the regular delays set out in this Code shall apply.
57. Any party or witness participating in a hearing before an AHP or an Appeals Panel may make their presentation in either English or French.

## Notices

58. Any written notice addressed to a student under this Code shall be sent by courier to the last address provided by the student to the University and shall be deemed to be received one (1) day after delivery.

## Notations on Academic Record and Transcript

59. Sanctions of a failing grade in a course and more serious sanctions shall be reflected on the student's academic record with the additional notation of "for academic and disciplinary reasons".
60. Sanctions of a failing grade in a course, a failing grade in a course and further ineligibility for a supplemental examination and the obligation to take extra courses shall be reflected on the student's academic transcript without any additional notations.
61. Suspensions imposed under this Code shall be recorded on the academic transcript as follows: "Required to withdraw for academic and disciplinary reasons. May not resume studies until [date]". At the date for resumption of studies, the notation shall be removed from the transcript but shall continue to appear on the student's academic record.
62. Any expulsion imposed under this Code shall be recorded on the academic transcript as follows: "Required to withdraw for academic and disciplinary reasons. May not apply for re-admission".
63. In cases where a sanction has been imposed but a student has requested either a full hearing before an AHP or has sought an appeal from an Appeals Panel which has not been disposed of, the notation on the record shall reflect the sanction but shall note that the sanction is "pending". In the case of a sanction of suspension or expulsion, the notation on the academic transcript shall note that the sanction is "pending".
64. No degree, diploma or certificate of the University shall be conferred or awarded from the time of the alleged offence until the final disposition of the charge.
65. Withdrawal by a student from a degree, diploma or certificate program or from a course shall not affect the filing of an Incident Report or any process provided for under this Code.

## Records and Confidentiality

66. The Registrar shall maintain a record in the student's official file with respect to all sanctions imposed under this Code.
67. Such record shall be kept in strictest confidence and shall only be communicated to the student concerned and to other persons within the University having a legitimate interest or duty to take communication of them.
In the event that a charge is dismissed by the Dean, all information relating to the charge will be removed from the files held by the Faculty and the Registrar and will have no effect on a student's academic record or future academic activities. However, in accordance with the legislation governing the keeping of records, a record of the charge and its dismissal will be kept in a confidential file by the Secretary and will be destroyed within the time-frame outlined by the University's archives retention rules.
68. Nothing contained in this section shall be interpreted as preventing the Registrar or any other University member from responding to a court order requiring the disclosure of information or statements obtained in the course of an interview or hearing conducted under this Code.

## Annual Report

69. An annual report detailing the number of charges laid under this Code and their disposition shall be prepared by the Secretary and presented to Senate by September 30 of each year. The report shall be published in the University's newspaper. In no circumstances shall any mention be made of the names of the parties involved nor of any information which might lead to their identification.

## Overall Responsibility for Code

70. The overall responsibility for the implementation and recommended amendments to this Code shall rest with the Secretary-General. The Secretary-General shall transmit an information sheet to each Dean and Chair at the beginning of the Fall Term each year outlining the general framework of this Code.

# $17.01 \quad$ POLICY ON THE ESTABLISHMENT OF TRIBUNAL HEARING POOLS 

17.10 RIGHTS AND RESPONSIBILITIES
$17.20 \quad$ OMBUDS OFFICE

## 1701 policy on the establishment OF TRIBUNAL HEARING POOLS

## General

1. This policy deals with the establishment of tribunal hearing pools for hearings, both first-level hearings as well as appeal hearings, provided for in the Code of Rights and Responsibilities, the Code of Conduct (Academic), the Academic Re-evaluation Procedures, the Graduate Academic Hearing Procedures, and any other codes or policies which may be adopted that refer to the Tribunal Hearing Pools provided for under this policy.
2. In the event that a hearing or appeal panel cannot be convened from the membership of the Student Tribunal Pool or Faculty Tribunal Pool, as outlined below, the Secretary-General shall designate the membership of the relevant hearing or appeal panel for a given case.

## Student Tribunal Pool

3. In June of each year, the Concordia Student Union Inc. shall be asked to nominate up to a maximum of twelve (12) undergraduate students and the Graduate Student Association shall be asked to nominate up to a maximum of six (6) graduate students to form the Student Tribunal Pool (STP).
4. In order to be eligible, students shall be registered in an undergraduate or graduate program and be in good standing. Students who are in failed standing, in conditional standing or on academic probation, or who have been sanctioned either under the Code of Rights and Responsibilities or the Code of Conduct (Academic) within the three (3) years previous to their nomination are not eligible.
The status and standing of student nominees shall be confirmed by the University Registrar in September prior to the submission of the list of nominees for approval to Senate by the Secretary of Senate. In addition, the status and standing of members of the STP shall be confirmed by the University Registrar each September for as long as the member remains in office.
5. The term of office of members of the STP shall be for two (2) years, from September 1 to August 31, renewable for a total maximum term of four (4) years. Members remain in office until replaced.

## Faculty Tribunal Pool

6. Each Faculty Council and the Council of the School of Graduate Studies shall nominate three (3) faculty members each, for a total of fifteen (15) faculty members, to comprise the Faculty Tribunal Pool (FTP).
7. The term of office of members of the FTP shall be for two (2) years, from September 1 to August 31, renewable for a total maximum term of four (4) years. Members remain in office until replaced.
8. The Secretary of each Faculty Council and the Council of the School of Graduate Studies shall forward a list of nominees to the Secretary of Senate prior to its September meeting for approval.

## Chairs

9. In addition to the members of the STP and FTP appointed by Senate, Senate shall appoint four (4) individuals to serve as non-voting Chairs of the various tribunal panels dealt with under this policy.
10. The role of the Chairs shall be to preside over the various tribunal panels, keep order and ensure fairness. The Chairs shall, as well, preside over the deliberations of the various tribunal panels but shall not vote.
11. Because the role of the Chairs of the various tribunal panels requires impartiality and particular skills which take time to develop and cannot easily be acquired by lay persons during a brief term of office, the four Chairs shall normally be selected from qualified alumni or emeriti who have training in law or tribunal procedures as well as some knowledge of the University environment.
12. The term of office for Chairs shall be for two (2) years, from September 1 to August 31, renewable with no maximum term.
13. The candidates for the Chairs shall be recommended to Senate by the University General Counsel in consultation with the secretaries of the tribunal panels dealt with under this policy. Curriculum vitae of the candidates shall accompany the recommendation.

## Training

14. All members of the STP and FTP shall receive training, prepared and conducted jointly by the secretaries of the tribunal panels dealt with under this policy, the Director of Advocacy and Support Services, and the University General Counsel. Separate training shall be held for the Chairs.

| Location | Sir George Williams Campus <br> Office of Rights and Responsibilities <br> Annex GM, Room: 1120 <br> (514) 848-4857 |
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## CODE OF RIGHTS AND RESPONSIBILITIES

Scope

## Code Applies to All Members of the University

1. This Code applies to all members of the University, that is, faculty members, administrative and support staff, and students. The process for the formal resolution of complaints made against students is distinct from the process for the formal resolution of complaints made against faculty members and administrative and support staff.

## Contractors, Their Employees and Visitors

2. Contractors, their employees and representatives, and visitors to the University are expected to conduct themselves in any University-related activity in a manner consistent with this policy. Violations of this Code by such persons may be dealt with as potential breaches of contract or may result in suspension of University privileges, such as access to campus. Should such persons believe that they have been subjected to conduct on campus in violation of this Code, they may consult the Office of Rights and Responsibilities for advice.

## Code Does Not Supersede Other Policies or Agreements

3. Nothing in this Code shall replace or supersede complaint, grievance or appeal procedures set out in any collective agreement to which Concordia University is a party, the Code of Conduct (Academic), the University Calendars or the University Policy Manuals.

## Jurisdiction

4. Complaints with respect to a violation of this Code may be made by members of the University in relation to the conduct of other members where the complainant is directly affected by the conduct in question. As well, the University, through its designated officers, may make a complaint on its own behalf. The alleged violation must have taken place on University premises, either rented or owned, or on other premises, in the course of any University-sponsored activity or event. Exceptionally, complaints may be made regarding an alleged violation that has taken place at another location, where the potential consequences of the violation may adversely affect the complainant's course of work or study at the University.

## Rights

Preamble
5. All faculty members, administrative and support staff, and students may reasonably expect to pursue their work and studies in a safe and civil environment. Concordia University therefore does not condone discrimination, harassment, sexual harassment, threatening or violent conduct or offenses against property. Such conduct is defined in articles 15 to 19.

## Responsibilities

6. All faculty members, administrative and support staff, and students are expected to refrain from violating this Code. Members of the University who have supervisory authority over others bear a particular responsibility to act in a timely and effective manner if they become aware of any violation of this Code.

## Assistance From the Office of Rights and Responsibilities

7. This Code establishes the Office of Rights and Responsibilities, whose mandate is to assist University members in resolving incidents involving an alleged violation of this Code, in an effective and constructive manner. Such assistance is available both to individuals who believe that they have been subjected to conduct that violates this Code, and to those with supervisory authority who are called upon to respond to incidents of such conduct.

## Complaints Subject to a Range of Responses

8. In keeping with its desire to settle conflicts in an effective and constructive manner, the University shall endeavour to seek an appropriate response to any alleged violations of this Code, ranging from the use of alternate methods of conflict resolution to formal procedures for adjudicating complaints. If a violation has occurred, every attempt shall be made to use remedies and sanctions that restore harmony, collegiality and cooperation between members.

## Informing the Community

9. The Office of Rights and Responsibilities shall undertake to inform all members of the University of the provisions of this Code and the services provided by the Advisor.

## Fairness and Consistency

10. Complaints made under this Code shall be adjudicated in a manner that is consistent with the principles of natural justice and fair for all parties to the complaint, regardless of constituency. The principles of natural justice may be defined broadly as the obligation to hear the other side and to make a decision untainted by bias.

## Academic Freedom

11. This Code is not to be applied in such a way as to detract from the right of faculty members, administrative and support staff, and students to engage in the frank discussion of potentially controversial matters, such as race, sex, sexual orientation, politics or religion. Further, the Code should not be interpreted in such a way as to limit the use of legitimate instructional techniques, such as irony, argument, conjecture and refutation, or the assignment of readings which may present a controversial point of view. This Code also recognizes the right to teach according to one's best judgement, within the bounds of the course calendar description and requirements of competency.

## Management Rights

12. This Code is not to be applied in such a way as to detract from the right and duty of those with supervisory authority to manage, and if necessary to discipline, faculty, administrative and support staff, and students in accordance with collective agreements and University policies and procedures.

## Union Rights

13. This Code is not to be applied in such a way as to detract from the rights of unions to defend the interests of their members and to exercise their rights under a collective agreement.

## Recourse at Law

14. This Code does not detract from the right of members to seek recourse at law.

## Discrimination

15. Discrimination is defined as treatment which:
a) has the effect or purpose of imposing burdens, obligations or disadvantages on members or groups of members; and
b) for which there is no bona fide and reasonable justification; and
c) when such treatment is based on one of the prohibited grounds specified in the Québec Charter of Human Rights and Freedoms, that is: race, colour, ethnic or national origin, sex, pregnancy, sexual orientation, civil status, age, religion, political convictions, language, social condition, handicap or the use of a means to palliate a handicap.

## Harassment

16. Harassment is defined as:
a) unwelcome, vexatious conduct, directed towards a member or group of members; and
b) which may or may not be based upon one of the prohibited grounds specified in article $15 \mathrm{c})$; and
c) when such conduct has the effect or purpose of unreasonably interfering with a member's work or academic, athletic or artistic performance or of creating an intimidating or hostile environment for work or study.

## Sexual Harassment

17. Sexual harassment is defined as conduct of a sexual nature such as, but not limited to, sexual assault, verbal abuse or threats of a sexual nature, unwelcome sexual invitations or requests, demands for sexual favours or unwelcome and repeated innuendos or taunting about a member's body or appearance when:
a) submission to such conduct is made, whether explicitly or implicitly, a term or condition of a member's employment or educational progress; or
b) submission to or rejection of such conduct is used as the basis for an employment or academic decision affecting that member; or
c) when such conduct has the effect or purpose of unreasonably interfering with a member's work or academic, athletic or artistic performance or of creating an intimidating or hostile environment for work or study.

## Threatening or Violent Conduct

18. Threatening or violent conduct is defined as:
a) assaulting another member; or
b) threatening another member or group of members with bodily harm or causing another member or group of members to have reasonable grounds to fear bodily harm; or
c) creating, or threatening to create, a condition which unnecessarily endangers or threatens the health, safety or well-being of another member or group of members or threatens the damage or destruction of property.

## Offenses Against Property

19. Offenses against property are defined as wilfully or recklessly taking, having unauthorized possession of, damaging or destroying any property belonging:
a) to the University; or
b) to any member when such property is on University premises or on other premises during the course of a University-sponsored activity or event.

Informal Resolution<br>of Complaints

## Consultation With the Advisor on Rights and Responsibilities

20. The Advisor on Rights and Responsibilities shall be impartial in the exercise of his/her functions, and shall respect the confidentiality of all parties to any matter in which the Advisor has been requested to assist.
21. Members of the University who believe that they have been subjected to conduct that violates this Code may consult the Advisor. The primary goal is to assist the complainant to make an informed choice as to the most appropriate method of resolution to a complaint or conflict.
22. Normally, a complaint should be made within two months of the alleged violation. This period may be extended at the discretion of the Advisor. If the person against whom the complaint is made (the respondent) is a member of a union, the Advisor shall inform the complainant of any delays regarding disciplinary procedures which may be prescribed in the respondent's collective agreement.
23. The Advisor will make a determination whether the complaint:
a) is not within the jurisdiction of this Code, in which case the Advisor shall, if appropriate, re-direct the complainant to the relevant channels for redress; or
b) is trivial, frivolous, vexatious or made in bad faith; or
c) is being heard, or has already been heard by another University officer, or through another University procedure; or
d) does not appear to be supported by sufficient evidence.
24. The Advisor may refuse to assist in informal resolution, or, in the case of complaints made against students, to proceed with a formal complaint, on one or more of the grounds listed in article 23.
25. Given the Advisor's agreement to proceed, the complainant shall decide upon one of the following courses of action:
a) to proceed with informal conflict resolution; or
b) to proceed with a formal process; or
c) to take no further action; or
d) to pursue any other course of action available at law, under a collective agreement or under any other University policies or procedures.

## Procedures for Informal Resolution

26. Should the complainant opt to proceed with informal conflict resolution, he or she shall authorize the Advisor to take steps to attempt an informal resolution of the complaint. Such steps may take a variety of forms, for example, helping to clarify perceptions, raising awareness of the impact of certain conduct, reconciling differences or sorting out misunderstandings. The parties may be brought together or communication may be effected through the Advisor.
27. Some situations lend themselves to structured mediation. If both parties agree to try this method, the Advisor may personally act as mediator, or may assist the parties in obtaining the services of another member of the University who is qualified to perform this function.
28. Any informal agreement reached between the parties is entirely voluntary. Neither the Advisor nor any other mediator has authority to impose conditions or sanctions upon either party.
29. The complainant may withdraw the complaint at any point during the process of informal resolution. As well, the Advisor may withdraw from the informal process if he or she determines that no useful purpose will be achieved by continuing to attempt informal resolution.
30. Normally, attempts at informal resolution shall not last longer than three months.

## Referral to the Dean of Students

31. Where a concern has been raised about a student's conduct, and, in the opinion of the Advisor, it cannot be adequately addressed using the range of informal options described in articles 26 and 27 , the Advisor may, with the agreement of the person raising the concern, refer the matter to the Dean of Students for disposition.
32. The Advisor shall forward the details of the matter, in writing, to the Dean of Students, who shall meet with the student in question.
33. In disposing of the matter, the Dean shall seek a response which is instructive for the student and which is intended to help prevent further problems of behaviour. Responses may include, but are not limited to, the following examples:

- issuing of a verbal or written warning not to repeat the behaviour in question;
- requesting that the student give a verbal or written apology;
- directing that the student's University computer privileges be suspended, where the complaint concerns abuse of such privileges. This measure may only be implemented if it can be done in such a manner as to not hinder the student's academic activities.

34. The Dean will maintain a file on the matter and will provide a written summary of the outcome to the Advisor who will, in turn, inform the person who raised the concern.

## Files of Complaints Resolved Informally

35. Upon completion of the informal process, the Advisor shall prepare a summary of the matter, but shall remove all information identifying the parties from the file.

## Procedures for Adjudicating Formal Complaints Made Against Students

36. Formal complaints against students shall be adjudicated by a Hearing Panel selected from the Student Tribunal Pool provided for under the Policy on the Establishment of Tribunal Hearing Pools.

## Structure of Student Hearing Panels

37. A permanent Secretary of the Code of Rights and Responsibilities Hearing Panels (the Secretary) shall be appointed by the Secretary-General. The Secretary shall be responsible for the administrative functioning of the Student Hearing Panels and shall maintain the confidential files and recordings of proceedings of the Student Hearing Panels.
38. The Secretary shall select a Hearing Panel composed of three (3) students drawn from the Student Tribunal Pool, as well as a non-voting Chair, to adjudicate each case.

## Initiating a Formal Complaint Against a Student

39. A complainant may opt to proceed directly to a formal complaint at the outset (article 25) or after an attempt at informal conflict resolution has been unsuccessful. No statements, documents, or information brought forward in the course of an attempt at informal conflict resolution may be used or referred to should a formal complaint be initiated. If the Advisor has refused to proceed with a formal complaint on the grounds listed in article 23, the complainant may appeal such a refusal by submitting a request in writing. The Advisor shall forward the request, together with a written explanation of the refusal, to the Secretary of the Student Hearing Panels, who shall convene a Hearing Panel to decide the issue. The decision of a Hearing Panel is final.
40. In the event that a formal complaint proceeds, the following articles shall apply.
41. The Advisor shall provide the complainant with a copy of the Code and shall inform him or her of the following:
a) the required format for submitting the complaint, which must be made in writing, signed and dated, and must identify the respondent and the precise nature of the complaint;
b) the procedures which shall be followed by a Hearing Panel;
c) the right of the complainant and the respondent to consult any person in the preparation of his or her case, and to be accompanied or represented before a Hearing Panel by any member of the University community. If the complainant is a student, he or she also has the option of obtaining a student advocate through the services of Advocacy and Support Services;
d) the right of appeal.
42. Upon receipt of the written complaint, the Advisor shall immediately notify the respondent. The respondent shall receive a copy of the Code and a copy of the complaint together with the information detailed in article 41 b ), c) and d).
43. Concurrent with the notification sent to the respondent, the Advisor shall notify the Secretary who shall convene a Hearing Panel to hear the matter. Thereafter, the Secretary shall be responsible for all communications with the complainant and the respondent.
44. A Hearing Panel shall be convened as soon as possible after receipt of the notification by the Secretary and normally within twenty (20) days.
45. Once a hearing date is fixed by the Secretary, the complainant shall submit any additional documentation substantiating his/her case to the Secretary no later than fifteen (15) days before the scheduled hearing date. Such documentation shall include any supporting documents and a list of the witnesses, if any, that will appear. The Secretary shall forward the documentation together with a list of the panellists selected for the case to the respondent no later than ten (10) days before the scheduled hearing date. The list of panellists shall also be sent to the complainant. The respondent may deposit whatever documentation he or she wishes before or at the hearing and may bring witnesses to testify on his or her behalf. The Hearing Panel may limit the number of witnesses called by both parties, taking into account their relevancy to the subject matter of the hearing.
46. Either party may object to the participation of a panellist on the grounds of potential bias. A reasoned objection shall be filed with the Secretary who shall arrange for an alternate panellist to serve if he or she determines that the objection is well founded. If the Secretary feels that the objection is frivolous and the matter cannot be resolved, the issue shall be forwarded to the Chair of the Student Hearing Panel who shall render a final decision in this regard.
47. A settlement may be agreed to by the parties at any time prior to the hearing. If both parties agree to attempt a settlement, the Advisor shall convene and facilitate a meeting between them. The process is entirely voluntary but once a settlement is reached, it is binding. The Advisor shall monitor the terms of the settlement and if either party defaults on the settlement, the Advisor shall inform the other party, who may then decide to resume the formal procedure. No settlement may be imposed by either party without the full agreement of the other.

## The Hearing

48. The Student Hearing Panel shall establish its own rules of procedure. Minimally, these rules shall provide for opening statements by the parties, the presentation of evidence and witnesses, the right of cross-examination, questioning by members of the Hearing Panel, representations with respect to desired sanctions and closing statements. Hearings shall be recorded, and the cassette kept as part of the permanent record of proceedings for a period of not less than five (5) years.
49. The role of the Chair shall be to preside over the proceedings, keep order and ensure fairness. The Chair shall, as well, preside over the deliberations of the Hearing Panel but shall not vote. Decisions shall be by majority vote.
50. The hearing shall be closed and confidential unless both parties have consented in writing to the attendance of members of the University community.
51. If the respondent fails, without reasonable excuse, to attend the hearing, the hearing may proceed in his or her absence or, at the Chair's discretion, the start of the hearing may be postponed. If the hearing proceeds in the respondent's absence, all rights contingent on his or her presence, with the exception of the right to have an advocate present to plead for postponement, are forfeited. In such a case, a respondent's right of appeal is limited to a consideration of the reasonableness of his or her excuse for not appearing. If an Appeals Panel finds that the excuse is reasonable, it shall order a new hearing by a new Hearing Panel with the respondent present. The decision of the new hearing with the respondent present is appealable as if it were a first hearing.
52. The Hearing Panel shall provide a signed, dated and reasoned decision. The standard of proof to be relied upon by the Hearing Panel shall be one of a "preponderance of evidence".

A "preponderance of evidence" standard means that the individual alleging wrongdoing must establish that his or her version of the facts is significantly more probable. This standard is less rigorous than the standard of "beyond a reasonable doubt" required under criminal law.

## Sanctions

53. The Hearing Panel may impose one or more of the following sanctions:
a) a written reprimand;
b) imposed conditions. The Hearing Panel does not, however, have the authority to bar a student from any academic activity;
c) payment as compensation for damage or loss of property or to otherwise rectify a situation which the student created or helped to create;
d) specified community service at Concordia University of up to ten (10) hours per week for a specified period of time;
e) a fine not exceeding $\$ 500$ when the Hearing Panel deems that other sanctions are not appropriate or practical;
f) subject to confirmation by the Rector or designate, a recommendation of suspension or expulsion.
The execution of any sanctions shall be suspended until the expiry of the delay to file an appeal (see article 57) or until the rendering of the decision by Appeals Panel if an appeal is heard. All monetary sanctions shall be payable within ten (10) days of the delays set out in this paragraph.
54. The decision of the Hearing Panel shall normally be rendered within ten (10) days of the hearing and shall be communicated in writing to both parties and the Advisor. The decision shall contain information as to the appeals process provided for under this Code.
55. The administration and monitoring of the sanction(s) imposed shall be the responsibility of the Dean of Students. Failure to pay any monetary sanction imposed within the delay prescribed in article 53 shall result in the amount being added to the respondent's student account. Should the respondent fail to comply with any non-monetary sanction, the Dean of Students may recommend to the Rector that the student not be permitted to re-register, be suspended, or that his or her diploma be withheld until such time as the respondent has fully complied with the sanction(s) imposed.

## Appeals

56. A party who wishes to appeal a decision or sanction of the Hearing Panel, or both, shall apply in writing to the Secretary for the authorization to lodge an appeal. The Secretary shall select an Appeals Panel, composed of three (3) members drawn from the Student Tribunal Pool, as well as a non-voting Chair, to decide whether an appeal shall be heard, having regard to the circumstances of each case.
57. Such request for authorization to appeal shall be submitted to the Secretary no later than fifteen (15) days after the date of transmission to the parties of the decision of the Hearing Panel.
58. Such request may be based only on the grounds of discovery of new evidence following the rendering of the decision of the Hearing Panel or on the presence of serious and prejudicial procedural defects. The request shall state in clear and precise terms the grounds on which the appeal is based. An Appeals Panel shall be convened as soon as possible after receipt of the request by the Secretary and normally within fifteen (15) days. It shall normally render its decision with respect to the request for authorization, based upon the written record only, within five (5) days of its consideration of the request. The Appeals Panel shall be provided with the complete file of the Hearing Panel.
59. If the authorization to appeal is granted, the appeal shall normally be heard within fifteen (15) days of the decision to authorize the appeal. Notification of such shall be sent to both parties.
60. The Appeals Panel has the authority to confirm, reverse or modify the decision being appealed. Further, should the appeal be based on the production of new evidence, the Appeals Panel may order a new hearing of the complaint by a new Hearing Panel.
61. The decision of the Appeals Panel shall be signed, dated and reasoned, and shall be sent to both parties, the Advisor and the members of the Hearing Panel who presided at the hearing of the complaint.
62. The decision of the Appeals Panel shall be final.

## Files of Formal Complaints Against Students

63. The Advisor shall maintain a file of all formal complaints processed. The file shall include the written complaint, the decision of the Hearing Panel and the decision of the Appeals Panel, if any. If a settlement is reached prior to a hearing, the general substance of the settlement shall be included in the file. If the complaint is withdrawn at any stage of the formal process, a notation to that effect shall be recorded, but all information identifying the parties shall be removed from the record.

## Procedures for Adjudicating Formal Complaints Made Against a Faculty, Administrative or Support Staff Member

64. Formal complaints made against a faculty, administrative or support staff member shall be adjudicated according to the provisions of the respondent's collective agreement or the relevant University policy.
65. A complainant may opt to proceed directly to a formal complaint at the outset (article 25) or after an attempt at informal conflict resolution has been unsuccessful.

## Initiating a Complaint Against a Faculty, Administrative or Support Staff Member

66. The Advisor shall provide the complainant with the following information:
a) the required format for submitting the complaint, which must be made in writing, signed and dated, and must identify the respondent and the precise nature of the complaint, including the article of the Code under which the complaint is being filed;
b) the identity of the authority to whom the complaint shall be submitted under the terms of the respondent's collective agreement or the relevant University policy;
c) the right of the complainant to consult any person in the preparation of his or her case, and to be accompanied or represented by any member of the University during the process of resolution. If the complainant is a student, he or she may opt to be accompanied by a student advocate obtained through the services of Advocacy and Support Services. If the complainant is a member of a union, he or she may opt to be accompanied by a union representative.
67. The complainant shall submit the written complaint to the authority identified in article 66 b ). The authority shall take the necessary steps to resolve the matter in such a manner as to respect the principles of natural justice and the procedures of any collective agreement or University policy which may apply. Hereinafter, the authority is responsible for all communication with the complainant and the respondent.

## Communication of the Decisions Taken

68. When the matter has been decided, the authority shall notify both the complainant and the Advisor of the general substance of the decision or action that was taken as a result of the complaint.
69. If the decision or action taken by the authority does not constitute a disciplinary action as defined by the relevant collective agreement or University policy, the authority shall monitor compliance by the respondent. Once satisfied that compliance has been effected, the authority shall so inform the complainant.
70. If disciplinary action is taken and is subsequently overturned by a higher authority or by grievance and arbitration procedures, the complainant and Advisor shall be notified.

Files of Formal Complaints Against Faculty, Administrative and Support Staff Members
71. The Advisor shall maintain a file of formal complaints received against faculty, administrative or support staff members, which shall summarize the substance of the consultation with the complainant, the record of resolution as supplied by the authority and information that a sanction has been overturned through grievance or arbitration, if this is the case.
72. The University's response to any urgent situation involving threatening or violent conduct shall be coordinated by the Advisor. He or she shall take the necessary steps to convene an Ad hoc case management team (the team) and shall thereafter coordinate the activities of the team until the situation has been resolved.
73. The Advisor's role shall be limited to that of coordination and facilitation, where necessary advising and supporting all those affected by the incident, and acting as the central link for intra-University communications relating to the incident.
74. The Advisor and the Team shall be guided by the Protocol for the co-ordination of urgent cases of threatening or violent conduct (the Protocol).
75. The Advisor shall be responsible for ensuring that the Protocol is revised and updated as needed, and to this end, shall consult whatever experts are appropriate. Revisions of the Protocol shall be submitted to, and approved by, the Rector.

## Reporting and Responding to Urgent Situations

76. Members who are faced with an urgent situation involving threatening or violent conduct, where there is reasonable cause to believe that the safety of persons may be threatened, shall immediately contact the Security Department. The Security Department shall take whatever action is necessary to secure the safety of persons, and shall alert the Advisor to convene a Team as necessary.
77. Members shall report to the Advisor any conduct which they have reasonable cause to believe potentially threatens the safety of persons. The Advisor shall assess the situation as specified in the Protocol, consulting experts as necessary, and make recommendations as to any further action appropriate in the circumstances.
78. Any member of the University who is called to a team meeting shall respond promptly.

## Temporary <br> Suspension

79. Where a member of the faculty or administrative and support staff presents a clear and present danger to the safety of persons or to the activities of the University as a whole or of any of its individual members, the matter shall be dealt with according to the provisions of the relevant collective agreement or University policies.
80. A member against whom such action is taken may seek recourse through the grievance procedures of the relevant collective agreement or the grievance procedures contained in University policies.
81. Where a student member presents a clear and present danger to the safety of persons or to the activities of the University as a whole or of any of its individual members, the Rector or his or her delegate may suspend the student pending the hearing provided for under article 82, exclude the student from any University premises and take any other steps that may be appropriate. The suspending officer shall notify the Registrar, the relevant Dean and the Security Department of the terms of the suspension.
82. In such a case, the suspending officer shall immediately lay a complaint against the student under articles 40 to 55 of this Code. The regular delays of this Code shall not apply, and a hearing into the complaint shall be held within ten (10) days of the suspension order. The Hearing Panel shall render its decision and inform the parties within three (3) days of the hearing.
83. Should the suspended student be unable to attend the hearing within the prescribed delay, he or she shall notify the Secretary as soon as he or she is able to attend a hearing. Upon such notification, the Secretary shall convene a hearing as soon as possible.
84. In the event that the Hearing Panel determines that the complaint is unfounded, that decision shall not invalidate the suspending officer's prior action. However, every effort shall be made to remedy any academic disadvantage that the student may have experienced as a consequence of the temporary suspension.
85. Upon the lifting of the suspension, the Secretary shall notify the Registrar, the relevant Dean and the Security Department.
86. All complaint files maintained by the Advisor shall be confidential and accessible only to the staff of the Office of Rights and Responsibilities. Such files shall be destroyed according to a retention schedule determined in accordance with provincial legislation.
87. Days is defined as working days which excludes weekends, holidays, and other days during which the University is closed.
88. In the calculation of any delay set out in the Code, the months of July and August shall not be taken into account. In the case of a hearing before a Hearing Panel or an Appeals Panel that commenced before July 1, the regular delays set out in this Code shall apply.
89. When the respondent is a student, any written notice shall be sent by courier to the last address provided by the student to the University and shall be deemed to be received one (1) day after delivery.
90. Any party or witness participating in a hearing before a Hearing Panel or an Appeals Panel may make their presentation in either English or French.
91. Wherever there is doubt or ambiguity regarding any provision of the Code or the procedure to be followed, that interpretation or procedure which appears to be most equitable and consistent with the general purposes and philosophy of the Code shall be adopted. Except for those terms specifically defined in the Code, the terms used shall have their usual meanings.
92. The overall responsibility for the implementation and recommended amendments to this Code shall rest with the Secretary-General.

Appointment and Functions of Advisor
93. The Advisor on Rights and Responsibilities shall be appointed by the Rector upon the recommendation of an advisory committee struck for this purpose. The Advisor shall report to the Rector.
94. The appointment shall be made for an initial term of two years, renewable for further terms of five years. During the fourth year of each such term the Rector shall appoint an appraisal committee which shall review the operations of the Office of Rights and Responsibilities and make recommendations to the Rector. This review shall include, but not be limited to, consultations with the internal community as well as external appraisal.
95. The Advisor shall direct the operations of the Office of Rights and Responsibilities, and carry out all duties described in this Code.
96. The Advisor shall submit an annual report to the Rector by September 30 of each year. The report shall detail the activities of the Office of Rights and Responsibilities, including statistics on all complaints received, and make recommendations, as necessary, with regard to either the Code of Rights and Responsibilities or the operations of the Office. The annual report shall be published in the University's newspaper and shall be submitted, for information purposes, to the Senate and Board of Governors.

Complaints Relating
to Operations of the Office of Rights and Responsibilities
97. If a member considers that the Advisor has failed to follow the procedures outlined in this Code, with respect to any matter to which the member has been a party, he or she may submit a written complaint, detailing the alleged procedural failure, to the Rector. The Rector shall investigate the complaint and inform the member of the results of the investigation.

Ombudsperson
KRISTEN ROBILLARD

| Location | Sir George Williams Campus <br> Ombuds Office <br> Annex GM, Room: 1120 <br> $(514) ~ 848-4964 ~$ |
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## TERMS OF REFERENCE OF THE OMBUDS OFFICE

## Scope

1. The Ombuds Office shall be independent of all existing administrative structures of the University. The Ombudsperson may help to resolve problems informally and may inquire into any University-related concerns or complaints. As well, he or she may inquire into the application of any policy, rule or procedure of the University. However, he or she may not inquire into the application or interpretation of a collective agreement, nor into the alleged violation of the duty of fair representation against a certified union. The Ombudsperson may make any recommendations he or she deems appropriate with regard to resolving problems or improving policies, rules or procedures. However, he or she shall have no actual authority to impose remedies or sanctions, or to enforce any policy, rule or procedure.

## Functions

## Functions of the Ombuds Office

2. Specifically, the Ombudsperson shall:
a) inform University members about existing policies, rules and procedures, and advise them as to the appropriate channel of redress for any concern or complaint they may have;
b) assist University members to resolve complaints informally and quickly;
c) at his or her discretion, conduct an independent and objective inquiry into complaints when normal channels of recourse have been exhausted;
d) explain decisions taken by University decision-makers when complaints are not substantiated;
e) at his or her discretion, recommend solutions when complaints are found to be valid;
f) bring to the attention of those in authority any policies, rules or procedures which appear unclear or inequitable or which might jeopardize the rights or freedoms of any members of the University. The Ombudsperson may suggest changes to the existing policies, rules or procedures or offer advice on the development of new policies, rules or procedures.

## Special Concerns of the Ombuds Office

3. In dealing with inquiries, the Ombudsperson shall be concerned that all members of the University are dealt with and deal with others fairly, and more specifically that:
a) decisions affecting members are made with reasonable promptness;
b) procedures used to reach decisions are adequate and the criteria and rules upon which such decisions are based are appropriate;
c) procedures and criteria used in making decisions are clearly communicated to those affected.

## Procedures

4. The Ombudsperson shall have immediate access to such University records, reports or documents as are required to fulfil his or her functions. Requests for such access shall receive priority from all members.
5. If the Ombudsperson decides to inquire into a matter, he or she shall make every effort to consult the relevant parties and give such parties the opportunity to reply, should they so wish.
6. Upon the conclusion of an inquiry, the Ombudsperson shall advise all parties to a complaint of his or her findings and any recommendations that he or she has formulated.
7. In addition, the Ombudsperson may bring his or her findings to the attention of those in authority and make whatever recommendations he or she deems appropriate and to whomever within the University he or she feels should receive them. Such recommendations may bear either on the actions or decision of an individual or a group, or on the policies, rules and procedures which gave rise to them. If, upon receipt of such findings or recommendations, a University authority proceeds to disciplinary action in order to resolve the matter, the procedure of any relevant University policy or collective agreement shall be followed.
8. The Ombudsperson may refuse to take up any case where he or she judges his or her intervention would be inappropriate and may withdraw from a case if continued involvement is ill-advised.
9. If the Ombudsperson refuses to take up a case or withdraws from a case, he or she shall, on request, provide the applicant with a written statement of the reason.
10. The Ombudsperson shall avoid involvement in cases where there may be conflict of interest.

## Confidentiality

11. Should the pursuit of any inquiry necessitate the disclosure of details that identify an applicant, the applicant shall be informed. Any disclosure shall be limited to those who have a need to know.
12. Should an applicant decide to withdraw an application in order to protect his or her anonymity, the Ombudsperson shall respect this decision.
13. The Ombudsperson shall respect the confidentiality of any confidential information or materials to which he or she has access.
14. Should the Ombudsperson consider that the response to his or her recommendation has been unsatisfactory, he or she shall be entitled to make the recommendation public, provided always that, subject to Article 11, the confidentiality of the applicant is respected.

## Files

15. The Ombudsperson shall maintain suitable records of complaints, findings and recommendations which shall be accessible only to the staff of the Ombuds Office. Such files shall be destroyed according to a retention schedule determined in accordance with provincial legislation.

## Appointment of Ombudsperson

16. The Ombudsperson shall be appointed by the Rector upon the recommendation of an advisory committee struck for this purpose. The Ombudsperson shall report to the Rector.
17. The appointment shall be made for an initial term of two years, renewable for further terms of five years. During the fourth year of each such term, the Rector shall appoint an appraisal committee which shall review the operations of the Ombuds Office. This review shall include, but not be limited to, consultations within the internal community as well as external appraisal.
18. The Ombudsperson shall submit an annual report to the Rector by September 30 of each year. The report shall detail activities of the Ombuds Office, including statistics on complaints received, and shall make recommendations, as necessary. The Rector shall ensure that the appropriate administrators consider and respond to the recommendations contained in the report.
19. The annual report shall be published in the University's newspaper.

## Complaints Relating to the Operations of the Ombuds Office

20. If a member considers that an Ombudsperson has committed a procedural or substantive violation of these terms of reference, with respect to any matter to which the member has been a party, he or she may submit a written complaint, detailing the alleged violation, to the Rector. The Rector shall investigate the complaint and inform the member of the results of the investigation.

## Student life and student services

18.1 STUDENT LIFE AND STUDENT SERVICES
18.1.1 Student Services Mission18.1.2 Concordia Council on Student Life (CCSL)
18.2 DEAN OF STUDENTS
18.2.1 Social and Cultural Activities
18.3 ADVOCACY AND SUPPORT SERVICES
18.3.1 Legal Information Services
18.3.2 Child Care
18.3.3 Multi-Faith Chaplaincy
18.3.4 Office for Students with Disabilities
18.3.5 International Students
18.3.6 Centre for Native Education
18.3.7 Student Advocate Program
18.3.8 Peer Support Program
18.4 COUNSELLING AND DEVELOPMENT
18.4.1 Student Success Centre
18.4.2 Counselling Service
18.4.3 Student Learning Services
18.4.4 Career Resource Centre
18.4.5 Career and Placement Service (CAPS)
18.4.6 New Student Program
18.5 HEALTH SERVICES
8.5.1 Services
18.5.2 Health Insurance
18.5.3 Health Promotion
18.5.4 Loyola Services
18.5.5 Medical Condition and Academic Responsibilities
18.5.6 Location and Hours of Operation
18.5.7 Residence and Off-Campus Housing
18.6 RECREATION AND ATHLETICS
8.7 FINANCIAL AID AND AWARDS
18.7.1 Gouvernement du Québec Student Loans and Bursaries
18.7.2 Federal and Provincial Loans and Bursaries
18.7.3 Concordia University Financial Aid
18.7.4 Concordia University Scholarships and Bursaries
18.7.5 Awards Offered by External Organizations
18.7.6 International Students

Dean of Students<br>DONALD L. BOISVERT<br>Director of Financial Aid and Awards, and Assistant Dean of Students (Assessment) ROGER CÔTÉ<br>Director of Advocacy and Support Services ANN KERBY

Director of Counselling and Development SUP MEI GRAUB<br>Director of Health Services<br>MELANIE DREW<br>Interim Director of Recreation and Athletics LES LAWTON

### 18.1 STUDENT LIFE AND STUDENT SERVICES

18.1.1

Student Services'
Mission Statement
"The mission of Concordia University's Student Services is to provide a network of expertise, resources, and programs to facilitate and enhance students' academic success and their personal development. We advocate for students, support diversity, and encourage a strong sense of community. We are committed to adapting our practices to meet current and evolving needs of the University community, in partnership with students, faculty, and staff."

Approved by Concordia Council on Student Life • November 2001
The Council, a body responsible for Student Services programs, policies and budgets, studies the range of student life on both campuses. It is composed of nine students, two faculty members, and eight members of the Student Services staff. The Dean of Students chairs the Council. Its meetings are open to all members of the University community.

### 18.2 DEAN OF STUDENTS

Loyola Campus
Administration Building, Room: AD 121
(514) 848-3535

## Sir George Williams Campus

Hall Building, Room: H 653
(514) 848-3517

The Dean of Students oversees Student Services including Advocacy and Support Services, Counselling and Development, Financial Aid and Awards, and Health Services. The Dean of Students Office is the principal resource at the University for the interpretation and regulation of policies and procedures as these apply to the non-academic aspects of student life. Student associations and groups, of whatever nature, are one of the primary means by which students can relate meaningfully to the institution. By providing liaison with and support to student groups and their governing bodies, the Dean of Students encourages students in the conduct of their own collective affairs, and facilitates the growth of student associations and the active involvement in them by students.
http://deanofstudents.concordia.ca
18.2.1

Social and Cultural
Activities

Social and Cultural Activities
A wide variety of social and cultural events is presented regularly by various student organizations and departments. The Concordia orchestra and choir are open to students, and they perform several concerts annually. There is a students' cafeteria and pub on each campus, as well as lounge facilities and games rooms.

### 18.3 ADVOCACY AND SUPPORT SERVICES

Advocacy and Support Services supports the self-development of students in exercising their own rights, works towards an environment which is open to constructive criticism, advocates against discrimination, and encourages responsible change. The following units listed under Section 18.3 form the Advocacy Sector.

Loyola Campus
Administration Building, Room: AD 131
(514) 848-3509
http://advocacy.concordia.ca

|  | Advice and help are offered to students requiring assistance on matters relating to their legal rights. |
| :---: | :---: |
| Legal Information Services | Commissioners of Oaths are also availa |
|  | Loyola Campus |
|  | Administration Building, Room: AD 131 (514) 848-4960 |
|  | http://advocacy.concordia.ca/legal/legal.html |
| 18.3.2 <br> Child Care | Child care services are offered for children of students, faculty, and staff. <br> On the Sir George Williams Campus, parents may enrol children 18 months to five years of age in the Centre de Petit Enfance Concordia. Application forms and details may be obtained at the Information Desk in the Hall Building or at the daycare. <br> La Garderie Les P'tits Profs is located on the Loyola Campus. Parents may enrol children three months to five years. For more information about this child care service please contact the centre directly. <br> Financial assistance for child care expenses is available for eligible students through the Québec Financial Aid - Loans and Bursaries program and through the ministère de la Famille et de l'enfance. |
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|  | Loyola Campus Sir George Williams Campus |
|  | La Garderie Les P'tits Profs Centre de Petit Enfance Concordia |
|  | Annex BB Annex DC |
|  | (514) 848-7788 (514) $848-8789$ |
|  | http://alcor.concordia.ca/~glpp/ http://advocacy.concordia.ca/daycare |
| 18.3.3 <br> Multi-Faith <br> Chaplaincy | Multi-Faith Chaplaincy offers a wide range of programs and services for the University community. Chaplains work with students, staff, and faculty, integrating concerns and interests into discussions, studies, and prayer. It is a multi-faith ministry, with a network of resources from several religious traditions. Chaplains are available for personal appointments. Offices on both campuses are the venue for most Chaplaincy programs and events, and are also a place for students to drop in to read or find a quiet space. The Loyola Chapel is also available for private reflection, as well as being a place for public worship on Sundays and weekdays. |
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|  |  |
|  | Loyola Campus Sir George Williams Campus |
|  | Administration Building, Room: AD $130 \quad$ Annex Z(514) $848-3588$ |
|  | http://advocacy.concordia.ca/ministry/ministry.html |
| 18.3.4 <br> Office for Students with Disabilities | Students with visual or hearing impairments, mobility limitations, or learning disabilities may require special services while studying at Concordia. Services include orientation, tutors, notetakers, and classroom relocation. Tape recorders, FM personal systems, and personal computers with voice and Braille output are available for on-campus use. All students with disabilities are advised to contact the coordinator as early as possible for assistance in meeting their special needs. Students using interpreter services, attendant care, or requiring identification to their professors must contact the department prior to the beginning of classes. <br> Students requiring special accommodation for examinations must contact the department at the beginning of each semester. All arrangements are contingent upon submission of appropriate documentation. It is the responsibility of the student to submit recent documentation, request exam accommodations, and verify specific exam arrangements with the Office for Students with Disabilities. All accommodations must be exam specific as well as disability specific. |
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| Learning Disability | Students who have recent documents attesting to a learning disability or who believe they may have a learning disability are advised to contact the Office for Students with Disabilities immediately upon admission to the University. While not every learning disability can be effectively accommodated within a university setting, learning strategies and, where appropriate, special assistance to support students in their academic program will be offered. Individualized examination arrangements can be provided to students with relevant assessments. These arrangements must be made with the department well in advance of the scheduled examination. |
|  |  |
|  | Loyola Campus Sir George Williams Campus |
|  | Administration Building, Room: AD 131 Hall Building, Room: H 580 |
|  | (514) 848-3536/Voice \& TDD (514) 848-3525/Voice \& TDD |
|  | http://advocacy.concordia.ca/disabled/disabled.html |

The International Students Office is responsible for providing special programs and services to promote and support the growth and development of International students. For additional information, see $\S 19$.

Sir George Williams Campus
Hall Building, Room: H 653
(514) 848-3515
http://advocacy.concordia.ca/international/iso.html
The Centre for Native Education offers support services and resources to Native students at Concordia. The Centre is a welcoming space where Native students can meet to plan social activities or just relax between classes. Staff and faculty are available to address individual needs and provide support and encouragement for all Native students at Concordia to continue with their program and achieve their highest potential. The Centre also seeks to increase awareness of Native issues and increase the knowledge of Native cultures among the Concordia community.
Native students may access the Centre's academic programs and services, including study rooms and computers, tutoring, and photocopy services.

Sir George Williams Campus
Annex V, Room: 303
(514) 848-7326
http://advocacy.concordia.ca/native/native.html
18.3.7

Student Advocate
Program

Peer Support
Program

Student advocates are currently registered at Concordia and trained in University rules and regulations. They are students from various disciplines and backgrounds, dedicated to helping their peers. Student advocates can act as representatives in both academic and non-academic cases. They can accompany students to hearings and appearances before committees. Student advocates can assist with student requests, grade re-evaluation applications and appeals, and can provide information and referral to University resources.

Loyola Campus
Administration Building, Room: AD 131
(514) 848-3509
http://advocacy.concordia.ca/student_advocate/advocate.html

The Peer Support Program is a student-staffed listening and referral centre for Concordia students. The service is free and confidential. Peers receive intensive and ongoing training so they can help students clarify problems and can make appropriate referrals. Peers also facilitate a number of outreach programs and discussion groups.

Sir George Williams Campus
Annex Z, Room: 03
(514) 848-3859
http://advocacy.concordia.ca/peer_support/peer.html

### 18.4 COUNSELLING AND DEVELOPMENT

Counselling and Development's mission is to empower students to maximize their personal, academic, and career potential. Diverse programs, resources, and expertise are provided in a supportive studentcentred environment to facilitate student success. Friendly, professional staff help students deal with personal, academic, and career concerns. As well, a wide variety of workshops for students are offered free of charge throughout the school year.
Services are offered in groups or individually, in English and French.

| Loyola Campus | Sir George Williams Campus |
| :--- | :--- |
| 2490 West Broadway, WC 101 | Hall Building, Room: H 440 <br> (514) 848-3555 |
| (514) $848-3545$ |  |
| Monday to Friday: 9 AM to 5 PM* | Monday to Thursday: 9 AM to 8 PM* |
| *Summer hours vary. | Friday: 9 AM to 5 PM |

http://cdev.concordia.ca
18.4.1

Student Success
Centre
18.4.2

Counselling Service

The Student Success Centre offers a wide range of programs designed to ensure success at Concordia. Its services include:

- Drop-in service at the Student Welcome Room (H 481): The friendly Student Success assistants offer personalized contact and information about university services important to students' success.
- Student Success Check-up: This is a tool for first-year students called the College Student Inventory. It assesses students' strengths and possible weaknesses and points them towards the necessary steps to improve their chances of success at university. Students who participate also benefit from establishing meaningful contacts with professionals at Concordia University, individuals that they can go to for guidance throughout their academic careers.
- Student Success Workshops help students build skills for success. Workshops cover a wide range of topics from "Setting and Achieving Goals" to "Managing Stress" and "Smart Test-taking Strategies".
- Student Success on the road reaches out to provide information to students in every corner of the University. They should watch for the mobile Success Centre to discover more ways to succeed.
- Writing Assistance Sign-up.

Professional counsellors, accredited psychotherapists and psychologists offer Concordia students educational, career, and personal counselling; individually or in groups. Confidentiality is ensured. Personal Counselling and Short-term Psychotherapy help students who are experiencing difficulties to clarify personal issues and find effective ways of dealing with them.
Personal Development Workshops are offered during the Fall and Winter semesters and can help with such issues as building relationships; communicating; planning one's life and career; understanding oneself and others; coping with loss, stress; dealing with gay, lesbian, and bisexual issues. Educational Counselling offers help to Concordia students who want to plan their university education and choose courses suited to their interests and aptitudes.
Career Counselling can help students carry out job search and make career choices based on their interests, skills, and abilities.
The Career Computer Lab enables students to match careers to their self-assessments of interests, aptitudes, skills, and values using specially designed software.
Vocational Testing is available to help both graduate and undergraduate students to assess their academic and career interests as well as their personal preferences.
18.4.3

Student Learning Services

Student Learning Services offers assistance to all Concordia students who want to improve their academic skills and learning potential.
Learning and Study Skills Specialists offer help to students on an individual basis to assess and develop their academic skills.
Peer Math Assistants offer help in small groups for students enrolled in basic Math courses.
Peer Writing Assistants offer individual help with writing to students in all faculties and at all levels.
English Conversation Groups provide opportunity for non-native speakers of English to improve their oral fluency.
Workshops are available to help students in such areas as study skills, academic reading and writing, time management, oral presentations, and exam anxiety.

The Career Resource Centre provides a wide spectrum of educational, career, and employment information in print and electronic format to help students orient their future. Compilations of top Internet sites on all these subjects are available.
The Education Collection, worldwide in scope, includes profiles and rankings of universities, university calendars, program directories, and sources of financial aid.
Career Information includes career encyclopedias, and books and pamphlets on such topics as individual occupations, labour-market trends, and salaries.
Job Search Resources include information for researching job openings and potential employers. It also includes books on such topics as designing résumés, writing cover letters, preparing for job interviews, conducting an electronic job hunt, and job hunting techniques.
Test Applications, Study Books, and CD-ROM computer-based sample exams are available to help students prepare for and take tests such as MCAT, LSAT, GMAT, DAT, and TOEFL.
Personal Development Resources include a variety of self-help books on such topics as study skills, time management, assertiveness training, coping with stress, and dealing with personal relationships.
18.4.5

Career and Placement Service (CAPS)
18.4.6

New Student
Program

CAPS helps students prepare for and gain entry into the labour market. It is an important link between university life and the "real world". CAPS offers both personalized and Internet services that can help students find jobs that match their qualifications.
Employment Assistance can help students identify their job skills and learn how to present themselves in response to labour-market demands. Individual appointments, as well as information sessions and group workshops, are offered in the areas of job search, résumé writing, and interview preparation. Student Placement Assistants (SPAs), a team of trained and supervised students, offer résumé check-up services.
Employment Opportunities are available on the CAPS Web site for students seeking summer, part-time, and full-time positions.
A job search Internet computer lab is available at CAPS offices.
An electronic résumé bank enables CAPS to quickly refer students to employers.
On-Campus Recruiting: During their last year of studies, students can apply for entry-level positions offered by large corporations that conduct annual recruiting campaigns in the fall and winter. Students can consult the list of campus recruiters available through links on the CAPS Web site.

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Sir George Williams Campus
2070 Mackay, EN 109
(514) 848-7345
Monday to Friday: }9\mathrm{ AM to 5 PM - Summer hours vary
http://caps.concordia.ca
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The New Student Program (NSP) Office helps new students make a successful transition to university. The NSP Office works with the other units in Counselling and Development to provide support to new students and help them resolve problems that may be encountered during their first year of university.
The Bridge magazine is a publication of the NSP Office. It helps new students learn about university services and student life at Concordia.
Orientation Programs are designed to welcome new students to Concordia and introduce them into the University community. Orientation programs include Discover Concordia, a university-wide orientation designed to familiarize new students with university facilities and services; Start Right, an orientation to university learning; and Getting to Know $U$, a small group orientation developed to help students connect with other students and become more comfortable in the university environment.
Smart Start is a proactive program developed to ensure students begin their studies on the path to success. Smart Start includes a pre-course assessment referred to as the Student Success Check-up and appropriate follow-up activities in the First-Year Experience Seminars, a series of workshop modules that cover topics of particular importance to first-year students and set the foundation for university success.
Program for Leadership and University Success (PLUS) is a two-pronged program designed to encourage all students to become actively involved in university life and to develop leadership skills. The PLUS Workshop Series is a series of workshops that provide students with the basic skills, tools, and knowledge needed to take on leadership roles. The PLUS Mentor Groups for New Students provide new students with the ongoing support of a successful upper-year student as well as opportunities to participate in a variety of activities which offer new students both personal and academic benefits.
http://newstudent.concordia.ca/

### 18.5 HEALTH SERVICES

Health Services is an on-campus clinic and health promotion centre. The staff, which includes nurses, family physicians, psychiatrists, psychotherapists, a dermatologist, support staff, and a health educator, work collaboratively to provide students with high-quality personalized health care and health education.

All services are strictly confidential. Information can only be released with the student's written authorization. This policy applies regardless of whether the information is requested by family members, community physicians, therapists or University officials.

Health Services offers a wide variety of services. For those that are not offered, such as dental care and eye care, Health Services can provide the names of resources that are located in the vicinity. Services include:

## Clinical Services

- Medical evaluation, treatment, and consultation
- General medical care for injuries and illnesses
- Gynecology, birth control, morning after pill, pregnancy tests, and pregnancy continuation or abortion referrals
- Sexually Transmitted Disease assessments, cultures, and treatment
- HIV non-nominal testing, which includes pre- and post-test counselling
- Allergy injections (after allergy evaluation has been assessed and treatment has been prescribed by allergist)
- Asthma teaching
- Dermatology
- Consultation and referrals for substance abuse


## Health Promotion and Wellness

- Preventive medical care, including immunizations and annual physicals
- Nutrition and body image counselling and education
- Drug and alcohol education
- Stress managment
- Wellness
- Safer sex education
- Smoking cessation


## Mental Health

- Psychiatry
- Short-term psychotherapy

How to Use Health Services: Using Health Services is easy. Students may call ahead to make an appointment for predictable issues or concerns such as a physical examination, prescription renewal, or health education. For more urgent health-care needs, students may come into one of the walk-in clinics where patients are seen on a first-come, first-served basis. Calling ahead first for information on waiting time is a good idea in order for students to plan their time.

Most of the services offered at Health Services are free of charge, provided students have a current Concordia I.D. card and valid health insurance. For visits with a nurse or the health educator, students will be asked to show their Concordia I.D. card. For physician visits, proof of Québec Health Insurance plan coverage, coverage from another province, or International Student Insurance is required. If Health Services client does not have valid health insurance, he or she will be required to pay for a physician visit. Both Health Services locations can provide students with information pamphlets on how to obtain a valid health card or how to maintain coverage while studying outside their province of origin.

Out-of-Province Students: To retain health coverage while studying at Concordia, out-of-province students must notify their provincial health authority of their status as a student in Québec. This must be done at the beginning of each academic year. Information on how to accomplish this can be obtained through Health Services or on their Web site. Unlike clinics in the community, foreign and out-of-province students are not charged additional fees for their medical care. Students are therefore encouraged to use Health Services for comprehensive care.

Health Services offers programs and activities in health education, health promotion, and informed health care consumerism. Discount prices are offered on a wide variety of items: condoms, dental dams, latex gloves, spermicidal foam, finger splints, first aid kits, band-aids, ace bandages slings and oral thermometers. Health Services maintains a lending library stocked with hundreds of books, relaxation tapes and videos. The health educator, along with other Health Services staff, bring health promotion information to students through the monthly newsletter Health Notes, regular health information kiosks on both campuses, and special health events such as the Health Fair. A calendar of events can be found on the Health Services Web site.

Loyola Health Services ensures access to health care and health information on the Loyola Campus.

If medical problems or concerns are interfering with a student's ability to attend class, complete assignments, or write exams, Health Services staff can work with the student to assess the problem and review ways in which Health Services can be of assistance.

|  | Loyola Campus | Sir George Williams Campus |
| :---: | :---: | :---: |
| 18.5.6 | 7141 Sherbrooke Street West | 2155 Guy Street (Annex ER), Room: 407 |
| Locations and | Administration Building, 1st Floor | Tel.: (514) 848-3565 |
| Hours of Operation | Tel.: (514) 848-3575 | Fax: (514) 848-2834 |
|  | Fax: (514) 848-2833 | Office Hours: |
|  | Office Hours: | Monday to Friday: 9 Am to 5 PM* |
|  | Monday to Friday: 9 am to 4:30 Pm* | *Summer hours vary |
|  | *Closed for lunch between 11:30 AM and 1 PM |  |
|  | Centralized at SGW for the summer period from |  |
|  | May to the end of August |  |
|  | http://health.concordia.ca healthy@alcor.concordia.ca |  |

## RESIDENCE - Loyola Campus Only

18.5.7

Residence and Off-Campus Housing

Hingston Hall is a dormitory-style, co-ed residence which houses 144 first-year undergraduate students. Single and double rooms are available; however, rooms are allocated on a first-come, first-served basis. Each room is furnished, including a bed, dresser drawers, desk and chair, and armoire. Refrigerators are rented to each resident for the duration of the academic year. Students in Residence are required to enrol in a meal plan offered by Concordia's food service provider, Chartwells. Other facilities include common lounges with coloured televisions and piano access, a games room with pool tables, laundry facilities, personal mailboxes, study rooms, and a weight room. Many activities are organized by the residents and the Residence Life staff.
By law, students are required to sign leases. These leases will follow the academic year (September to May). Students wishing to contract for only one term must meet special conditions and are advised to contact the Residence Office for more information.

## Residence Fees

The 2002-03 room rates were as follows:
Singe Room Rate: $\$ 340.41$ per month ( $\$ 2,723.28$ per eight-month period)
Double Room Rate: $\$ 292.28$ per month ( $\$ 2,338.24$ per eight-month period)
Refrigerator Rental: $\$ 130.00$ per eight-month period

## Meal Plan Fees

The 2002-03 meal plan fees were as follows:
Plan A: \$ 900 per term
Plan B: $\quad \$ 1,200$ per term
Plan C: $\quad \$ 1,500$ per term
Plan D: $\quad \$ 1,750$ per term
More information about the meal plans can be obtained directly from Chartwells at (514) 848-3641.
Acceptance to the University does not guarantee admission to residence. A separate application for on-campus housing can be accessed at the Residence Web site listed below, or by contacting the Residence Office at:

> Concordia University Residence
> Loyola Campus
> Hingston Hall, Room: HA 150
> Montréal, Québec H4B 1R6
> Tel.: (514) 848-4755
> Fax: (514) 848-4780
> http://residence.concordia.ca

## OFF-CAMPUS HOUSING

A computerized housing list is available at CSU, Hall Building, Room: H 260, (514) 848-7476.

### 18.6 RECREATION AND ATHLETICS

Physical activity is an important component of student life and it provides many opportunities for individual growth and development. Recreation and Athletics offers a complete and diversified program in order to provide an opportunity for all students to participate in a physical activity of their choice. The principles of fair play and equality of opportunity guide all program activities.
Fitness, recreational, and skill-development programs for men and women operate on both campuses under the supervision of professionally trained instructors. These activities provide a forum for physical
fitness, structured participation, and low-intensity competition. The interuniversity sport program is primarily for students with playing experience and those who wish to pursue a high level of competition. Graduate as well as undergraduate students pursuing studies on a full-time basis, and meeting the requirements of the Canadian Interuniversity Athletic Union, are eligible to represent Concordia in interuniversity competition. Concordia University holds memberships in the CIAU, O-QIFC, QSSF, and the OUA. Although Concordia has fielded national championship teams, the focus of the interuniversity program continues to be the development of academic and athletic excellence. Towards this end, Recreation and Athletics offers a comprehensive academic athlete support program to all studentathletes involved in interuniversity teams.

The south campus is the focal point of all fitness, recreation, and sport activities on the Loyola Campus. This facility includes full-length playing fields and a fitness and recreation centre complete with an ice arena, gymnasium, and weight-training room. The Sir George Williams intramural and instructional programs are centred in the Victoria School gymnasium.

| Loyola Campus | Sir George Williams Campus |
| :--- | :--- |
| Athletics Complex, Room: PA 104 | Victoria School, Room: GY 060 |
| (514) $848-3850$ | (514) $848-3860$ |

Concordia Stinger Hot Line: (514) 848-3888

### 18.7 FINANCIAL AID AND AWARDS

## General Information

The Financial Aid and Awards Office assists students and prospective students in seeking and securing financial assistance to enable them to pursue their scholastic objectives.
Student financial assistance is available in various forms, such as government student loans and/or bursaries; University scholarships and bursary programs; on-campus work opportunities through the University Work Study Program; and corporate scholarship programs.
18.7.1

Gouvernement
du Québec
Student Loans and
Bursaries
Application forms for Québec Loans and Bursaries are available from the Financial Aid and Awards Office. Each student is responsible for completing his or her application form and forwarding it directly to the government. Once a student's aid is calculated, he or she will receive a Détail de Calcul sheet indicating the amount of aid he or she will be entitled to receive.
It is important to note that the Loans and Bursaries Program is based on the principle that the student and in some cases, his or her parents, sponsor or spouse, must contribute toward the cost of the student's education according to their respective means.
Financial assistance is initially granted in the form of a loan which a student must pay back at the end of his or her studies. If a student is entitled to more than the maximum loan, he or she may receive additional assistance in the form of a bursary, which does not have to be paid back.

Eligibility
Students are eligible to be considered for government assistance if they meet the following conditions:

1) Canadian Citizen or Permanent Resident; 2) domiciled and residing in Québec for one year [the last 12 consecutive months before pursuing full-time studies (excluding residents of other provinces who move to Québec to pursue their full-time studies)]; 3) must be enrolled full-time. Full-time credit load for undergraduate students is defined as at least 12 credits per term. For Graduate students (master's and PhD), status is defined by the Admissions Office of the School of Graduate Studies. Graduate students in a Certificate or Diploma program must be registered for a minimum of eight credits per term.
In addition, the student must not have received assistance for a period exceeding:
a) Nine terms of university studies towards a single bachelor's degree;
b) 11 terms of university studies towards a single bachelor's degree which required more than 90 credits (not applicable to Mature students);
c) 13 terms of university studies towards a single bachelor's degree in a co-op program;
d) Seven terms of university studies towards a master's level degree;
e) Eight terms of university studies towards a master's level degree with thesis;
f) 11 terms of university studies towards a doctorate degree.

The periods described above ( $a, b, c$, and d) are not cumulative, but are independent of each other.
A student may not receive assistance for more than 22 semesters of full-time study.
The Department of Aide financière aux études set the following maximum cumulative debt load starting 1997-98 academic year. Please be advised that the maximum cumulative debt load is unrelated to your eligibility periods, in other words, you might not be eligible for any assistance if you have accumulated a maximum debt load even if you have not used up all your eligibility periods.

| Level of study | Maximum limit of loans |
| ---: | ---: |
| Secondary vocational school | $\$ 21,000$ |
| College: $\quad$ general | $\$ 15,000$ |
| technical | $\$ 21,000$ |
| non-subsidized | $\$ 25,000$ |
| University: $\quad$ undergraduate programs requiring less than eight terms (BA) | $\$ 25,000$ |
|  | undergraduate programs requiring more than eight terms |
|  |  |
|  |  |
|  | (co-op, engineering) |
|  | $\$ 30,000$ |
|  | $\$ 35,000$ |
|  | $\$ 40,000$ |
|  | $\$ 45,000$ |

## FINANCIAL ASSISTANCE FOR PART-TIME STUDENTS

The Québec Ministry of Education has introduced a new Loans Program for part-time studies effective for the Fall/Winter 2002-03 academic session. Students interested in applying for this program may contact the Financial Aid and Awards Office for further details on eligibility requirements.

## PHYSICALLY DISABLED STUDENTS

Students in any faculty, who are Canadian Citizens or Permanent Residents and who have been domiciled in Québec for one year prior to their full-time studies, may apply for a bursary if they suffer from a recognized major functional physical disability. Applications are available from the Financial Aid and Awards Office as well as at the Office for Students with Disabilities. Further information is also available at the Office for Students with Disabilities.

## SUMMER LANGUAGE IMMERSION COURSE BURSARIES

Bursaries will be granted to students across Canada to enable them to enrol in a five-week immersion course in French or English at accredited institutions.
The aim of this program is to provide post-secondary students with the opportunity to learn one of Canada's official languages as their second official language and to improve their knowledge of the culture represented by that language. Candidates whose mother tongue is neither French nor English may not receive bursaries to study English or French as their first official language. These bursaries will defray the cost of tuition, instructional materials, and room and board, but will not cover transportation costs or pocket money.
Inquiries regarding the awarding of bursaries (e.g., eligibility, etc.) should be made to the students' provincial coordinator or territorial official, the names and addresses of which are available at the Financial Aid and Awards Office.

Eligibility:
Students are eligible if they meet the following conditions:
a) are Canadian Citizens or Permanent Residents at the time of application. Students studying in Canada on visas are not eligible;
b) have general post-secondary standing or can prove that they will have obtained such a status by the time they become involved in the program;
c) were enrolled as full-time students during the previous academic year.

## OFFICIAL LANGUAGE MONITOR PROGRAM

Monitors are students who help students with the spoken language by conveying to them the real-life aspect of the language. They carry out their duties under the supervision of second-language teachers. Full-time monitors work for 10 months (September to June) for an average of 25 hours per week and may earn up to $\$ 11,000$. Part-time monitors are employed for eight months for an average of eight hours per week (September to April). The program also provides reimbursement for certain expenses. For further information contact the Financial Aid and Awards Office.
18.7.2

Federal and
Provincial Loans and Bursaries

Students applying for Federal and Provincial Loans (other than Québec) must be Canadian Citizens or Permanent Residents with one year's residency, without pursuing full-time studies, and domiciled in the province to which they apply.
When students apply for financial assistance from the government (Federal or Provincial), and certification of student status is required on the application form, this certification is obtained from the Financial Aid and Awards Office.
In all provinces except Québec, the provincial authority listed below administers the Canada Student Loan Plan (Federal) as well as their own programs.

## List of Appropriate Provincial Authorities

ALBERTA
Student Finance Board
P.O. Box 28000, Station Main
Edmonton, Alberta
T5J 4R4
(403) 427-2740
BRITISH COLUMBIA
Student Services Branch
Ministry of Advanced Education,
Training and Technology
2nd Floor, 1106 Cook Street
Victoria, British Columbia
V8V 3Z9
(250) 387-6100
1-800-742-1818 (toll free)

MANITOBA
Student Aid Branch
1181 Portage, Suite 409
Winnipeg, Manitoba
R3G 0T3
(204) 945-6321
1-800-204-1685

NEW BRUNSWICK
Department of Youth and Recreation
P.O. Box 6000, 548 York Street
Fredericton, New Brunswick
E3B 5H1
(506) 453-2577
1-800-667-8626 (toll free)
NEWFOUNDLAND and LABRADOR
Student Aid Division
Department of Education
P.O. Box 8700, 3rd Floor
St. John's, Newfoundland
A1B 4J6
(709) 729-5849
NORTHWEST TERRITORIES
Department of Education,
Student Services Section
Yellowknife, Northwest Territories
X1A 2L9
(403) 873-7194
1-800-661-0793
NOVA SCOTIA
Student Aid Office
P.O. Box 2290, Station M
Halifax, Nova Scotia
B3J 3C8
(902) 424-8420

ONTARIO
Student Support Branch
Ministry of Colleges and Universities
P.O. Box 4500

189 Red River Road, 4th Floor
Thunder Bay, Ontario
P7B6G9
(807) 343-7260

1-800-465-3013 (toll free in Ontario) 1-800-465-3958 (telephone device for the hearing impaired)
1-900-565-6727 (a $\$ 2$ charge applies for students outside of the province)

PRINCE EDWARD ISLAND
Student Aid Division
Department of Education
P.O. Box 2000, 105 Rochford Street,

Shaw Building, 3rd Floor
Charlottetown, Prince Edward Island
C1A 7N8
(902) 368-4640

QUÉBEC
Ministère de l'Éducation
Aide financière aux études
1035, rue de la Chevrotière
Québec, Québec
G1R 5A5
(418) 643-3750
(514) 864-4505 (for information or inquiry into
the status of your file)
(Interactive telephone 24 hours/day,
7 days/week)
1-877-643-3750
SASKATCHEWAN
Student Financial Assistance Branch
3085 Albert Street, Room B21
Regina, Saskatchewan
S4P 3V7
(306) 787-5620

YUKON
The Student Financial Assistance
Department of Education
P.O. Box 2703

Whitehorse, Yukon Territory
Y1A 2 C 6
(867) 667-5929

CANADA STUDENT LOAN
Department of the Secretary of State of Canada
Student Assistance Directorate
P.O. Box 2090, Station D

Ottawa, Ontario
K1P 6C6
(819) 994-1844
18.7.3

Concordia University
Financial Aid

## Work Study Program

Work Study is a financial aid program funded by Concordia University, the Department of Aide financière aux études of the Québec Ministry of Education, and La Direction des affaires étudiantes et de la coopération internationale du Ministère de l'Education. It is designed to assist full-time Concordia University students (with the exception of the Summer Term), who are in financial need, to pursue their academic goals by providing part-time employment on campus. (Maximum of 15 hours per calendar week.)

Eligibility: A student is eligible to participate in the Work Study Program if he/she meets the following criteria:
a) must be a Canadian Citizen, a Permanent Resident, or an International student;
b) must be registered as a full-time student for the academic period in which the work is performed;
c) must demonstrate financial need as evidenced by a needs test done by the Financial Aid and Awards Office.

Further information on this program can be obtained at the Financial Aid and Awards Office and by reading the Work Study Information Booklet at: http://financialaid.concordia.ca/workstudy.

## Tuition Deferrals

Students who have received a confirmation of financial assistance from a government funding source and who are unable to pay their tuition fees by the required deadlines may apply to defer payment until such time as they receive their funds. Requests for tuition deferrals must be made through the Financial Aid and Awards Office. Tuition deferrals will not cover any outstanding tuition fees from previous years nor the interest on the outstanding balance. For further information, please contact the Financial Aid and Awards Office.

## Short-term Advances

Funds are available at the Financial Aid and Awards Office for students experiencing financial difficulties. Such advances are issued to undergraduate and graduate, full-time and part-time students at Concordia University. Students must see a Financial Aid and Awards officer for further information on eligibility requirements and conditions.
The service is made possible by contributions of the Concordia University Alumni Association Inc. to the University Emergency Loan Endowment Fund from which interest earnings support part of the Short-term Advance Program.
18.7.4

Concordia University Scholarships and Bursaries

## Concordia University Awards

Two types of awards are available to undergraduate students through the Financial Aid and Awards Offices; these are scholarships and bursaries.
Entrance Scholarships are available to students entering university programs, and In-course Scholarships are available to students who have completed the previous year of full-time study at Concordia University. In all cases, scholarships are awarded on the basis of scholastic achievement and, for some awards, consideration is given to the involvement in university life.
Bursaries are available to students who have completed at least one semester of full-time study at Concordia University. These bursaries are known as In-course Bursaries, and are awarded on the basis of financial need and scholastic achievement.
Unless otherwise stated, all awards are granted to full-time students who are Canadian Citizens or Permanent Residents. Unless expressly authorized by the University Undergraduate Scholarships and Awards Committee, award recipients may hold only one of the following types of awards in a given academic year: Concordia Entrance Scholarships, Concordia In-course Scholarships, or Concordia In-course Bursaries.
For additional information and application forms, contact the Financial Aid and Awards Office or consult its Financial Aid and Awards Office (FAAO) Handbook.

## CONCORDIA ENTRANCE SCHOLARSHIPS

A number of scholarships are available to students entering their first year of full-time study. These are awarded by the University Scholarship and Awards Committee on the basis of academic achievement during the first three semesters of cégep or equivalent. For a complete list, see $\S 300.1$ or consult the FAAO Handbook.

## CONCORDIA IN-COURSE SCHOLARSHIPS

In-course Scholarships are awarded to full-time students (unless otherwise indicated) who have completed at least 24 credits at Concordia. Recipients are selected in the summer on the basis of the previous year's academic achievement. The scholarships are paid in the following Fall and Winter terms. Recipients must maintain their full-time status throughout the year the award is tenable. Unless otherwise indicated, no application is required. Academic performance is reviewed with the Office of the Registrar. For a complete list, see $\S 300.2$ or consult the FAAO Handbook.

## CONCORDIA IN-COURSE BURSARIES

These awards are made on the basis of financial need and satisfactory academic standing. The value of each award may fluctuate yearly depending upon current interest rates. Unless stated differently, awards are given to full-time students who are Canadian Citizens or Permanent Residents. For a complete list, see $\S 300.2$ or consult the FAAO Handbook.

## Concordia Senior Student Bursary Program

Concordia University has, for many years, endeavoured to facilitate access to university studies for senior citizens. The University is happy to offer to eligible students who make the request, bursaries to help defray the cost of their studies. These bursaries are non-renewable, but recipients may apply in successive years.

Eligibility: Applicants must be 65 years of age or over, and registered as full- or part-time students at Concordia University. Applicants must be considered as either senior Independent, senior undergraduate, or senior graduate students.

Value of Bursaries: The value of these bursaries is $\$ 25$ per credit for each level of study.
Approval Process: Recipients will be selected on the basis of progress in their studies, and a personal statement indicating mention of their financial need and how this bursary would be of assistance to them

For additional information, consult the FAAO Handbook available from the Financial Aid and Awards Office.
18.7.5

Awards Offered by External
Organizations
18.7.6

International Students

These awards are sponsored and administered by external associations, companies, foundations, societies, and clubs. Applications go directly to the organization administering the award, unless otherwise noted. For a complete list, see $\S 300.3$.

American Students:
Students coming to a Canadian university from the United States may apply for a Higher Education Loan through their home state. These forms, once completed by the student, must be sent to Concordia's Financial Aid and Awards Office for further completion. Due to the lengthy processing time by the U.S. Government, it is recommended that students submit their application forms as soon as possible upon acceptance from the University.

Students from Other Countries:
The scholarships, bursaries, and loans offered through Concordia University and external agencies are generally not available to overseas students. Students studying on a student visa who require financial aid should, therefore, contact their home country's Department of Education.
The Canadian International Development Agency offers training assistance to most developing countries with which Canada has a cooperative agreement; however, students must be nominated by their own government. For further information, contact the Scholarship Committee, Human Resources Directorate, Canadian International Development Agency, 200 Promenade du Portage, Hull, Québec, K1A 0G4.
Students should try to obtain adequate finances before coming to Canada. If students do not plan to return home during the summer, four additional months of living expenses should also be provided for.

## International students

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| :--- | :--- | :--- |
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## INTERNATIONAL STUDENTS

There are over 2,000 foreign students from more than 100 countries studying at Concordia University. In this section, International students will find relevant information on admission requirements, immigration regulations and tuition fees.
The International Students Office, a member of the Advocacy and Support Services Group of Student Services, is responsible for providing programs and services which are responsive to, and supportive of the International students' special needs. The services include:

- orientation sessions for new students;
- assistance for students with personal and academic difficulties;
- guidance in cultural integration/adaptation;
- health insurance plan;
- information on all campus and community services available to International students;
- assistance with immigration procedures, rules, and regulations;
- short-term emergency loans;
- letters for military deferment, transfer of funds, and immigration invitation/visitation letters;
- liaison with sponsoring agencies and governmental sponsors of students.

Upon arrival at Concordia University, new International students are encouraged to attend an Orientation Session organized by the International Students Office, in order to pick up their Information Package on Concordia and the City of Montréal. Students should attend an Insurance Information Session and sign up for a health insurance card or, in exceptional cases, opt out of the health insurance plan (see $\S 19.5$ for further details). It is essential that International students bring photocopies of their immigration documents and/or passport to the International Students Office.

### 19.1 ADMISSION REQUIREMENTS

Concordia welcomes applications for admission from well-qualified students from other countries. In general, students are expected to have completed the level of education required for university admission in their home country. The school-leaving subjects taken by the candidate should normally be appropriate for the degree program to which application has been made. Some programs have additional requirements, e.g. audition, interview, portfolio. Since entry to many programs is limited, the satisfaction of minimum requirements does not guarantee entry to the University. More specific information with respect to admission requirements and placement levels may be obtained by writing to the Office of the Registrar. Depending on their educational background, applicants are considered for entry to three-year (90 credits) or four-year (120 credits) degree programs. In the case of the BEng, BA (Early Childhood and Elementary Education), BEd (TESL), or BFA (Specialization in Art Education), the program requires four to five years.

## United Kingdom and Commonwealth

Passes awarded in the examinations for the General Certificate of Education, the Cambridge Overseas and Higher School Certificates, the West African School Certificates, General Certificate of Secondary Education, or the equivalent, will be considered as satisfying the general entrance requirements if the conditions of either Scheme A or Scheme B are satisfied.

Scheme A: Passes in five subjects, of which at least two must be passed at the Advanced Level (GCE) or Principal Level (COHSC), and three at the Ordinary Level (GCSE) or the School Certificate Level.

Scheme B: Passes in four subjects, of which at least three must be passed at the Advanced Level (GCE) or Principal Level (COHSC), and one at the Ordinary Level (GCSE) or the School Certificate Level.

Some additional information attached to the fulfilment of the above schemes:
a) an average grade of "D" or better in Advanced or Principal Level subjects is normally expected. In the case of certain quota programs where enrolment is limited, candidates will have to present higher grades in order to compete successfully for places at the University;
b) two appropriate AS (Advanced Supplementary) Levels may be accepted in lieu of an Advanced Level for the purposes of satisfying the general entrance requirements of the University.

Some programs have specific subject requirements. These have been outlined below. The following indicates, by degree, which Advanced or Principal Level subjects are required.

BAdmin, BComm, BSc - Mathematics and one other acceptable subject

## BA, BEd, BFA - Any two acceptable subjects

BEng - Mathematics and Physics
BCompSc
Computer Applications - Mathematics and any other acceptable subject
Computer Systems - Mathematics and Physics
Information Systems - Mathematics and any other acceptable subject
Software Systems - Mathematics and Physics
Students who have not written Advanced or Principal Level examinations but who have good grades in at least five appropriate Ordinary Level, GCSE, or School Certificate Level subjects plus one year of formal schooling beyond Ordinary Level, in a suitable academic program in a recognized school or college, may be considered for admission to an undergraduate program requiring the completion of 120 credits (four years). In the case of the BEng, BA (Early Childhood and Elementary Education), BEd (TESL), and BFA (Specialization in Art Education), the program would require four to five years.

## United States

High school graduates with good grades from accredited schools who have followed an academic program designed for university entrance may apply for admission to an undergraduate program requiring the completion of 120 credits (four years). In the case of the BEng, BA (Early Childhood and Elementary Education), BEd (TESL), and BFA (Specialization in Art Education), the program requires four to five years. A GED (General Education Diploma) is not recognized as meeting the requirements for admission to a degree program.
Applicants are required to have a better than average school record and high ranking in their graduating class. While no set pattern of courses in high school is required, all applicants are expected to have taken four units of English. Those applying for admission to Science or Engineering must include three or four units in mathematics and two in the sciences. At least three units of mathematics are recommended for admission to the John Molson School of Business.
Although not required for admission, letters of recommendation from school guidance counsellors and the results of aptitude and achievement tests (SAT, ACT) are helpful additions to an application. Students who have passed Advanced Placement examinations in appropriate subjects with a grade of " 3 " or better may be granted some advanced standing.

## France

Students who have completed the requirements for the Baccalauréat with satisfactory results may be considered for admission to an undergraduate program requiring the completion of 90 credits (three years), or 120 credits (four years) for the BEd (TESL), BA (Early Childhood and Elementary Education), and BFA (Specialization in Art Education).
The number of credits required for the BEng varies according to the option chosen and to the previous preparation of the student, but is usually no fewer than 115.
In cases where the Baccalauréat specialization (serie) followed does not fully satisfy the entrance course requirements for the degree program sought, the student, if admitted, will have to include the designated prerequisites as part of the first-year program. In some instances, the prerequisites must be taken in addition to the undergraduate program.

## International Baccalaureate

IB Diploma candidates who achieve passes in six subjects with three at the Higher Level and who obtain a minimum total of 27 points may be considered for admission to the three-year ( 90 credits) programs of study (four years of study in Engineering, Early Childhood and Elementary Education, TESL, or BFA - Specialization in Art Education). Students who have not completed the full IB Diploma program but have IB Certificates in individual Higher Level subjects may be eligible for credit.

## Other Countries

Candidates applying from other countries who have completed the level of education required for university admission in their home country will be considered for admission provided that better than average grades have been attained. In most cases, a specific minimum overall standard is required. More specific information with respect to admission requirements and placement levels may be obtained by writing to the Office of the Registrar.

Transfers from Post-Secondary Institutions
Transfers from post-secondary institutions are referred to §13.3.4.

| 19.1.2 | The language of instruction at Concordia University is English. For information regarding the language proficiency requirement, refer to §13.4. |
| :---: | :---: |
| 19.1 .3 |  |
| Criteria for Admission | documents and the Summary of Educational Experience form have been received. All certificates must show the actual grade obtained in each examination. International applications are processed by the Office of the Registrar. Further information and assistance may be obtained from the Office of the Registrar; telephone (514) 848-2668; fax (514) 848-2621; E-mail: admreg@alcor.concordia.ca. |
| 19.1.4 | International applicants must pay a \$50 (Canadian) application fee payable by international money |
| Application Fee | order or draft drawn on a Canadian bank in Canadian funds to Concordia University |
| 15 | Students select courses for the September and January terms prior to the start of classes. Most students |
| R.1.5 | within North America will register for their courses by touchtone telephone using CARL, the Concordia |
| Registration | Automated Response Line. Alternate registration arrangements will be available for students residing outside North America. |
|  | Complete information regarding registration is sent with the letter of acceptance |

### 19.2 IMMIGRATION PROCEDURES AND DOCUMENTATION REQUIRED FOR THE UNIVERSITY

All persons, other than Canadian Citizens and Landed Immigrants, who wish to pursue their studies in the province of Québec, must obtain a Québec Certificate of Acceptance (CAQ) and a Canada Study Permit. However, if their program of study is six months or less in duration, students have the option of studying in Canada without having to apply for a CAQ or Study Permit provided they complete their studies within the authorized period of their stay in Canada. This regulation may be of particular interest to a visiting student, exchange student, or any other student whose program of study will not exceed six months and which can be completed within the allowable period of their stay in Canada.
The CAQ is obtained by the Québec Immigration authorities and the Study Permit by the Visa Departments of the Canadian Consulates and Embassies.
The obtainment of the CAQ and Study Permit is a lengthy process; it is therefore strongly recommended that the application process be started immediately upon receipt of the letter of admission from Concordia University. For further information, please consult the Information Guide for International Students available at the International Students Office Web site: http://advocacy.concordia.ca/international/iso.html.
When applying for the Québec Certificate of Acceptance and the Study Permit, International students are required to present evidence of sufficient funds for tuition and living expenses. Evidence of financial support may be:

- an updated bank book with proof of ownership, and if necessary, documents attesting to other sources of income;
- a sworn declaration of financial support, accompanied by proof of sufficient funds from the Canadian or foreign sponsor for the current year, if applicable;
- if students are under 18 years of age, both Québec Immigration and Canada Immigration require that the student provide legal proof of sponsors here in Canada;
- an authorization to transfer funds from the organization which controls currency in the student's country, if applicable;
- a bursary attestation or confirmation of a financial award, specifying the monthly or annual amount, if applicable.
Students are advised to ensure that they will have sufficient funding to complete their degree.
Concordia University cannot assume financial responsibility for students who do not have adequate funds.
Processing fees will be charged by both Québec Immigration and Canada Immigration for the issuance of a Québec Certificate of Acceptance and a Study Permit.


## Studying for Six Months or Less

As indicated above, if students intend to study for six months or less within the allowable period of their stay in Canada, they need only apply for a Temporary Resident Visa if they reside in a country that requires such a document to enter Canada; no other document is necessary. Further information may be obtained from the Visa Departments of the Canadian Consulate and Embassy in the students' country. A list of Canadian Representatives abroad is available through the following Web site: http://www.dfait-maeci.gc.ca/english/MISSIONS/rep-can1e.htm.
19.2.2

Documentation
Required for the
University
International students are required to provide a photocopy of their CAQ and Study Permit to the International Students Office, 1455 de Maisonneuve Blvd West, Hall Building, Room 653 when they first register at Concordia and thereafter every time they renew their immigration documents. International students who will be studying for six months or less are required to submit photocopies
of their passport pages showing the passport number, the dates of issue and expiry, name and date of birth, and the stamp made by Canadian authorities on their most recent entry into Canada. This directive is in accordance with the funding regulations of the Québec Ministry of Education which requires that all International students registered at a university in Québec have in their permanent file a copy of their Québec Certificate of Acceptance, their Study Permit, and for persons studying six months or less, a photocopy of the appropriate passport pages.
International students are required to provide the appropriate documentation to the International
Students Office before the DNE deadline of their first semester at Concordia. Failure to comply to this regulation could result in the cancellation of the student's registration.

### 19.3 TUITION AND OTHER FEES FOR INTERNATIONAL STUDENTS

The fees, payable to the University for the regular session of two terms commencing in September and concluding in April, are approximately $\$ 11,600$ for a full-time student. This amount includes tuition fees for 30 credits; compulsory fees which include student services, recreation and athletics, and association and activity fees; administration fee; capital campaign fee; registration fees; and the health insurance premium. This estimate does not include the cost of textbooks or living expenses. Please refer to $\$ 15.2$ for information concerning the payment of tuition and fees.

## Exemptions from Differential Fees

Certain International students may be eligible to pay the same fees as Québec Residents. Students who qualify for an exemption from the differential fees for International students, pay the regular fee of $\$ 3,077.10$ (including tuition and compulsory fees for 30 credits, and the International students health insurance fee). The following are among those exempted from paying differential fees:

1. diplomats, consular personnel, accredited representatives or civil servants of a foreign country, the United Nations or one of its organizations, an intergovernmental organization to which Canada belongs, and any member of the staff of the above-listed persons who are working in Canada in an official capacity and who have obtained an attestation issued by "le Protocole" (Gouvernement du Québec), 525 René-Lévesque East, Québec City, telephone (418) 649-2346. This attestation is valid for one academic year and must be renewed each year the student attends university;
2. the spouse and unmarried children of the above-listed persons;
3. an International student whose spouse or parents hold certain work categories of work permits in Québec. For further details and verification, please contact the Office of the Registrar, Room LB 700, (514) 848-2624;
4. a student who is registered at a university and who has come to Québec as an exchange student, or as a student participating in a program of cooperation agreed to by the Government of Québec and which exempts the participants from paying differential fees;
5. a student who is a French Citizen (accord France-Québec);
6. a student who is admitted to a Québec university and whose country has a fee remission agreement with the Québec Government. The Government of Québec has agreements for granting a limited number of exemptions from the differential fees for International students from the following countries:

Algeria, Andorra, Argentina, Belgium (some members of the Communauté française de Belgique), Benin, Bolivia, Burkina Faso, Cameroon, Catalonia, China, Colombia, Congo (Democratic Republic of, Republic of), Costa Rica, Côte d'Ivoire, Ecuador, Egypt, Flemish
Community, Gabon, Germany (a certain number of holders of Deutscher Akademischer Austauschdienst scholarships [DAAD]), Guinea, Haiti, Honduras, Israel, Korea (Republic of), Lebanon, Madagascar, Mali, Mauritania, Mauritius, Mexico, Morocco, Niger, Panama, Peru, Rwanda, Senegal, Togo, Tunisia, Uruguay, and Vietnam.
Inquiries and applications for an exemption should be made directly to the students' own Ministry of Education prior to leaving their home country. In some cases, when the person is in Canada, it may be possible to apply for an exemption at his or her Embassy or Consulate in Canada or in the United States;
7. a student who is registered at a university and whose status as a Permanent Resident has been officially recognized by Canada Immigration. Should a student receive Permanent Resident status during the academic year, he or she should immediately present the official document to the Office of the Registrar, Room LB 700, to have his or her status changed and to inquire about a possible refund. For more information on refund policies and deadlines for submission of documents, please contact the Office of the Registrar;
8. under certain conditions, students who have obtained Convention Refugee status may be eligible for an exemption from the differential fees for International students. Depending on the documentation submitted, they may be eligible to pay either the Québec tuition rate or the Canadian non-Québec rate. For information on deadlines for submission of documentation and on the specific documents required, please contact the Office of the Registrar;
9. program-based exemption: a student who is registered on a full-time basis in one of the French programs listed below may be eligible to pay Québec fees for all of their courses, subject to certain conditions.

- Specialization: Études françaises;
- Major: Études françaises (Option: Langue ou Littératures de langue française);
- Major: Études françaises (Option: Langue et didactique).
course-based exemption: students who are not in a Major or Specialization listed above may be eligible for an exemption from the differential fees for approved courses in French Literature, French Language, and Québec Studies on a course basis. Students in privatized programs, however, are not eligible under this category and must pay the privatized rate for all their courses. This includes International students in programs in Arts and Science and in the John Molson School of Business.
Specific information on the category of fee exemption (partial or full exemption from differential fees) will be provided with the acceptance letter to one of these programs.


### 19.4 SCHOLARSHIPS, BURSARIES AND LOANS

Scholarships, bursaries, and loans offered through Concordia University and external agencies are generally not available to International students. Students should try to obtain adequate finances before coming to Canada and ensure that they will have sufficient funding to complete their degrees.

## Concordia In-Course Bursaries

These awards are made on the basis of financial need and high academic standing. Among the available in-course bursaries, those financed by Concordia University are available to International students. Applications are available at the Financial Aid and Awards Office in November and should be returned in December. For more information, contact the Financial Aid and Awards Office and consult §18.7.4; for a complete listing, consult §300.7.

## Concordia Shuffle Entrance Scholarships

A number of entrance scholarships are awarded to students entering their first year of study. The recipients will be selected on the basis of academic achievement during the first three semesters of cégep or equivalent. Application forms are available from the Financial Aid and Awards Office. Deadline: August 1.

## Faculty of Arts and Science - International Undergraduate Scholarships

The Faculty of Arts and Science awards 10 scholarships to International students applying to an undergraduate program in the Faculty, and 10 scholarships to returning undergraduate International students. The scholarships are based on academic merit and are valued at $\$ 5,000$ each. Full-time students must have completed at least 24 credits, have at least 30 credits left to completion of a degree, and have maintained a grade point average of at least 3.00 to be eligible to apply for a renewal of up to two more years. Application forms are available at the Faculty of Arts and Science Dean's Office, Room AD 229. Application requests may be sent to Concordia University, Faculty of Arts and Science, 7141 Sherbrooke Street West, Room AD 229, Montréal, Québec H4B 1R6; E-mail: artsnsci@vax2.concordia.ca; fax: (514) 848-4201; Web site: http://artsandscience.concordia.ca. The deadline for returning students to apply is March 1 and the complete application package must be received by April 1.

## The John Molson School of Business — Pierre Sevigny Scholarship

The John Molson School of Business awards entrance scholarships to a number of International applicants on the basis of academic achievement. The scholarship constitutes $50 \%$ of the tuition fees for the first full-time academic year of studies at the John Molson School of Business, renewable for the following academic year provided the student maintains a grade point average of 3.75 for a minimum of 12 Concordia University credits. For more information, telephone: (514) 848-4118 or E-mail: intlcomm@jmsb.concordia.ca.

## CIDA Award Programs

The Canadian International Development Agency (CIDA) offers training assistance to most developing countries with which Canada has a cooperative agreement. Students are nominated by their own government. For further information, contact the Scholarship Committee, Human Resources Directorate, CIDA, 200 Promenade du Portage, Hull, Québec, K1A 0G4.

## Exemption from Higher Tuition Fees

The Government of Québec has agreements for granting a limited number of exemptions from differential fees for International students from specific countries. Consult §19.3.6 for the list of countries and information.

Other Awards
Information on awards to International students and trainees is also available in the brochure Awards for Study in Canada published by the Canadian Bureau for International Education. For further information, write to CBIE, 220 Laurier Avenue West, Suite 1100, Ottawa, Ontario, Canada, K1P 5Z9; telephone: (613) 237-4820; Web site: http://www.cbie.ca; E-mail: info@cbie.ca. Another Web site of interest: http://www.destineducation.ca.

## American Students

Students coming to Concordia University from the United States may apply for a Higher Education Loan Plan through their hometown bank. These forms must be sent to the Financial Aid and Awards Office at Concordia for completion. It is essential that applications be made as early as possible.

## Emergency Loans

Funds are available at the International Students Office for short-term emergency loans. Loans are issued to full-time undergraduate and graduate students who need temporary emergency financial assistance. For further information on eligibility requirements and conditions, contact the coordinator, International Students Office, Room: H 653, (514) 848-3514.

### 19.5 INTERNATIONAL STUDENT HEALTH AND ACCIDENT INSURANCE

Québec Immigration Services and the Québec Ministry of Education require that all International students be covered by a health insurance plan while studying and living in Québec. To this end, Concordia University has implemented a compulsory health and accident insurance plan for its International students. Health insurance fees are charged automatically every year when International students register for courses.
The single coverage for the 2003-04 academic year is $\$ 480$ (subject to change). Coverage is from August 15, 2003, until August 14, 2004. Students who register in January pay a pro-rated premium for the eight-month period ending August 14, 2004.
Only certain categories of International students are permitted to opt out of the Concordia Health Insurance Plan for International Students. These categories are listed below. Please note that Concordia University does not accept any other kind of health insurance plan.

1. Students who have a valid Québec Medicare card / Carte d'assurance maladie du Québec
2. As a result of intergovernmental agreements, full-time students from Denmark, Finland,

France, Luxembourg, Norway, Portugal, and Sweden who were covered under their government's medical system before their arrival in Québec, are eligible for the Québec medical benefits (called Québec Medicare card or Carte d'assurance maladie du Québec). These students must apply for the Québec Medicare card. Further information is available at the International Students Office.
3. International students who receive a scholarship from a sponsoring organization (such as CIDA, ICCS, CBIE, WUSC). Students must ensure that their scholarship letter clearly mentions the health insurance coverage as well as the duration of the policy.
4. Refugee Claimants and Convention Refugees who can show proof of medical coverage by the Canadian or Québec Government.
5. International students who become Permanent Residents of Canada. An exemption/adjustment will be based on the date the International Students Office receives the record of landing document.
Proof of insurance is required in order to process an exemption. It must be presented in English or French indicating the period and amount of coverage available in Canada. This information is required by the Québec Ministry of Education and must be in the student's Concordia file for audits and reports.
Applications for exemptions are processed in person at the International Students Office (ISO), Hall Building, Room H 653. Applications must be processed every year before the prescribed deadlines. Applications submitted after the deadlines and approved by the ISO will be charged an administration fee.
Refunds will be considered only for students who have not filed any claim to the Insurance Company during the current insured period. Refunds are given in a form of credit to the student's university account.

Exemption Deadlines for Students Beginning the 2003-04 Academic Year in September 2003
First deadline: October 31, 2003 Full refund
Second deadline: December 22, 2003
Refund of $\$ 380$
(administrative fee: \$100)

Final deadline: May 3, 2004
Refund of \$280
(administrative fee: \$200)
No refund will be approved after this final deadline.
Exemption Deadlines for Students Beginning the 2003-04 Academic Year in January 2004
First deadline: February 27, 2004
Full refund
Final deadline: May 3, 2004
Refund of $\$ 299$
(administrative fee: \$100)
No refund will be approved after this final deadline.

## Exemption Deadline for Students Beginning in Summer 2004

Final deadline: June 15, 2004
Full refund
No refund will be approved after this final deadline.

### 19.6 WORKING ON-CAMPUS

Immigration regulations allow full-time International students to accept employment on the campus of the educational institution where they are registered, as long as they hold a valid Study Permit. They do not require a Work Permit. After graduation, International students may work in Canada, provided the employment is in their field of study. In this case, they must apply for a Work Permit within 90 days of release of final marks.
Spouses of International students are allowed to work on- and off-campus and are required to apply for a Work Permit. However, spouses who are full-time students are restricted to on-campus employment only. Further information may be obtained at the International Students Office, (514) 848-3515, E-mail: iso@alcor.concordia.ca.
Immigration regulations cited in this section are valid at the time of this writing. For further information, students should contact the Canada Consulate/Embassy in their country.

### 19.7 ESTIMATED COST OF LIVING FOR INTERNATIONAL STUDENTS

University Fees*

| University Fees* | Tuition \$ 9,1 | \$ 9,168.30-10,188.30 |
| :---: | :---: | :---: |
|  | Compulsory Fees: |  |
|  | Administrative Fee | 270.00 |
|  | Student Service Fee | 207.00 |
|  | Recreation \& Athletics Fee | 67.50 |
|  | Student Association Fee** | 243.90 |
|  | International Health Insurance | 480.00 |
|  | New Student Program Fee | 35.00 |
|  | Registration Fee | 40.00 |
|  | Capital Campaign Fee | 60.00 |
|  | Student Safety Patrol Fee | 2.00 |
|  | Le Frigo-Vert | 3.40 |
| Personal Expenses*** ${ }^{* *}$ |  |  |
|  | Books and Supplies | 1,363.00 |
|  | Room and Food | 10,192.00 |
|  | Transportation | 728.00 |
|  | Miscellaneous | 1,842.00 |

*The University reserves the right to modify the published scale of tuition and other student fees at any time before the beginning of an academic term.
${ }^{* *}$ Fee may vary depending on the Faculty but will not exceed $\$ 243.90$.
${ }^{* * *}$ General and personal expenses listed are estimates and are subject to personal needs.
NOTE: The figures stated above are in Canadian funds. Tuition fees are based on 30 credits. General and personal expenses are estimated for full-time students for 12 months. Fees are subject to change without notice.
NOTE: Students who qualify for an exemption from the differential fee for International students pay the regular fee of $\$ 3,077.10$ (which includes tuition and compulsory fees for 30 credits, and the International student health insurance fee). Refer to §19.3 for Exemptions from Differential Fees.

## Student and alumni associations

20.1 UNDERGRADUATE STUDENTS
20.2 GRADUATE STUDENTS
20.3 ALUMNI

### 20.1 UNDERGRADUATE STUDENTS

The Concordia Student Union (CSU) represents most undergraduate students, both full-time and part-time. Besides organizing many events and activities, CSU ensures student representation on University decision-making bodies, both those that legislate on academic and administrative matters and those concerned with the cultural and social life of the community. There are student members of the Board of Governors, Senate, the Faculty Councils, and the Concordia Council on Student Life, which is directly concerned with the provision of student services.
Powers and responsibilities are divided between three bodies: the Executive, the Council of Representatives, and the Judicial Board. The Executive is headed by an elected president. The Council of Representatives consists of students elected from the four Faculties and Independent students. The Judicial Board is an appointed body charged with assuring the constitutionality of any new legislation.
Students in the four Faculties are also represented by their own associations: the Arts and Science
Federation Association (ASFA), the Commerce and Administration Students' Association
(CASA), the Engineering and Computer Science Students' Association (ECA), and the Fine Arts Student Association (FASA).
The CSU has more than 75 member-clubs and associations. They may be associated with a department or discipline, such as the Psychology Students' Association or pursue a special interest like the Debating Society. Each has its own program of activities, funded by the CSU. There are numerous clubs and associations for students of particular ethnic backgrounds under the Office of the Dean of Students.
Other activities that come under the CSU umbrella are the television station CUTV, the radio station CJLO, and the CSU Orientation. Two student newspapers, The Link and The Concordian, operate independently of the student association. Both newspapers are incorporated, with separate, wholly autonomous Boards of Directors.
There is a CSU office on each campus. The Sir George Williams office is in Room H 637 of the Henry F. Hall Building. The Loyola office is in the Loyola Campus Centre. CSU's telephone number is (514) 848-7474.

### 20.2 GRADUATE STUDENTS

Graduate students become members of the Graduate Students' Association (GSA). It is concerned with graduate student representation on the Board of Governors, Senate, the School of Graduate Studies and Faculty Councils, and initiates a wide range of activities for graduate students and the University community as a whole, including social occasions, lectures, and concerts. The Association publishes a regular newsletter. Its offices are at 2030 Mackay Street (514) 848-7900.

### 20.3 ALUMNI

The Concordia University Alumni Association (CUAA) was created in 1983. In the words of its Constitution, the Association exists to "encourage the fellowship of graduates from Loyola, Sir George Williams, and Concordia University through social, educational and cultural activities" and to "preserve and promote the interests of Concordia University through alumni involvement in its future and governance". All graduates of the University are automatically lifetime members of the Association, as are graduates of Concordia's two founding institutions: Loyola College and Sir George Williams University.
The Concordia University Alumni Association works with Concordia's Office of University Advancement and Alumni Relations to provide alumni with a variety of programs and services. All graduates receive the quarterly Concordia University Magazine.
Alumni are encouraged to purchase an Alumni I.D. Card. This identification card allows graduates to take advantage of University library borrowing privileges and access to audio-visual services, Concordia's sports medicine clinic, counselling and development, legal services, and Concordia's daycare centre. Cardholders pay no registration fees for courses at Concordia's Centre for Continuing Education and receive discounts for Stingers varsity sports games and car rentals. Alumni may benefit from the Concordia University affinity credit card; home, automobile and life insurance reduced rates; and hotel and travel services.

The CUAA organizes programs and events year-round. Homecoming offers graduates an opportunity to visit, participate in special reunions and seminars, and enjoy campus tours, entertainment, and the Homecoming football game. The Annual Alumni Recognition Awards Banquet honours outstanding volunteer contributions of alumni, faculty, students and friends of the University. The Concordia Alumni Student Team ( $C^{*} A^{*} S^{*} T$ ) connects prospective students, current students, alumni and the University. The online Mentor Program and Business Card Exchange gives current students the opportunity to draw upon the vast experience of Concordia alumni. The Alumni Office also has a convocation photography service and offers E-mail Forwarding for Life to all its graduates.
The Concordia University Alumni Association is committed to the development and support of a worldwide network of alumni chapters. Representing more than 110,000 graduates, there are active alumni groups in Ottawa, Toronto, Calgary, Edmonton, Vancouver, Victoria, New York, Boston, Florida, San Francisco, Los Angeles, London, Trinidad \& Tobago, Beirut, and Hong Kong. In addition, there is also an MBA Alumni Chapter. The Correspondence Program can help alumni find lost friends or classmates.
For more information please contact the Office of University Advancement and Alumni Relations, 1250 Guy Street, Room FB 520, (514) 848-4856 or fax (514) 848-2826, E-mail alumni@coral.concordia.ca, or visit the CUAA at http://alumni.concordia.ca/.

COMMUNICATIONS/VISUAL ARTS BUSINESS AND ADMINISTRATION CONTINUING EDUCATION COMPUTER INSTITUTE CONTINUING EDUCATION LANGUAGE INSTITUTE GENERAL SEMINARS AND WORKSHOPS HOSPITALITY MANAGEMENT AND TOURISM INSTITUTE IN MANAGEMENT AND COMMUNITY DEVELOPMENT ONLINE LEARNING

## Director

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LANCE EVOY
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|  | Sir George Williams Campus <br> Location <br>  <br>  <br>  <br> (514) $848-3600$, Catherine St. West, 1st floor |
| :--- | :--- |

As part of its commitment to the lifelong pursuit of education, Concordia University, through its Centre for Continuing Education, offers a variety of non-credit educational programs for adults. These are designed to meet the practical needs and interests of people in the workplace, helping them to refine and improve their skills.
Students may choose individual courses or a program series to earn Certificates in a particular area. The Centre's courses and programs do not count towards any of the degree or Certificate programs offered by the Faculties of the University.
The Centre for Continuing Education calendar provides a description of the available courses and programs as well as the Centre's regulations pertaining to admission, tuition, and academic concerns.

### 21.1 COMMUNICATIONS/VISUAL ARTS

## Communications

Multimedia: This Certificate program introduces students to both the theory and practice of graphic design and visual communications applied to interactive documents. These hands-on courses (both manual and computer graphics) focus on developing students' technical skills and understanding of the visual language, and the use of typography following the principles of graphic design applied to softwares commonly used in the Web industry.

Graphic Applications in Desktop Publishing (Day only): This Certificate program is intended for students interested in acquiring the software skills sought after in today's competitive graphic design world. Students will learn the fundamentals of sound graphic design and will learn how to apply their acquired software skills to render graphic design that successfully responds to the client requirements. A Certificate in Graphic Applications in Desktop Publishing is awarded upon successful completion of six courses.

Journalism: This Certificate program focuses on developing and enhancing information-gathering and writing skills. Students interested in pursuing careers in freelance, news media or magazine writing will benefit from these practical courses. A Certificate in Journalism is awarded upon successful completion of 10 courses.

Photography: This Certificate program consists of five-week and ten-week modules on a rotating schedule, featuring regular assignments with critiquing and evaluation. A Certificate in Photography is awarded upon successful completion of seven courses.

Public Relations (Day or Evening): This Certificate program offers practical courses to students interested in exploring the underlying concepts and techniques of public relations in a variety of areas: government, media, community, and corporate relations. A Certificate in Public Relations is awarded upon successful completion of 10 courses.

Radio Production: This Certificate program takes you behind the scenes with courses in audio production. Students wishing to pursue careers on the technical side of the radio industry will benefit from this blend of theory and practice. A Certificate in Radio Production is awarded upon successful completion of 10 courses.

Technical Communication: This Certificate program has been developed in response to the enormous demand for technical communicators in Canada and covers a range of areas, such as technical writing and translation, technical editing, and project management. A Certificate in Technical Communication is awarded upon successful completion of 10 courses.

Communications (Day only): The Communications Certificate takes a broad approach to the study of media and communications. The aim is to develop the student's appreciation of the role played by the mass media in society. Students will be prepared for a wide range of career opportunities in the media industries, in public relations and in government. Topics include News and Feature Writing, Basic Editing, Writing for Radio and TV, Effective Speaking, Technical Writing, Graphic Design Techniques, Video Production I, and Fundamentals of Public Relations. A Certificate is awarded upon successful completion of 10 courses.

Video Production: This Certificate program takes students behind the scenes with courses in video production. Students will acquire the different techniques needed to produce a video, such as scripting, storyboarding, and directing. Those wishing to pursue careers on the technical side of the media industry will benefit from this blend of theory and practice.

## Visual Arts

The following courses are offered as interest courses only: Drawing, Watercolour, Life Drawing, Portraiture, Introduction to Acting Techniques, and Become a Museum Guide. There are no exams, and no certificate is awarded.

## Learning Skills

These courses are geared to professionals wishing to further their career and to students interested in improving study skills or mastering effective learning strategies. Courses include Graduate Management Admission Preparation Course, Skills and Strategies for Academic Success, and Time Management Strategies.

### 21.2 BUSINESS AND ADMINISTRATION

E-Commerce (Day only): The introduction of E-commerce has forever changed the way companies conduct business. This new intensive Certificate focuses on the basis and strategy of E-commerce. Among other things, students are exposed to the process and mechanics of E-commerce and the required hardware, software, and security. Of particular importance is distribution and the value chain. This Certificate is designed for beginners; no previous knowledge in the area of E-commerce is assumed.

Financial Management (Evening): Every successful business must be firmly grounded in sound financial management. The focus of this Certificate is to cultivate proper financial practices, so as the manager/owner may make informed decisions with respect to, among other things, inventory, budgeting, and control.

Human Resources Management (Day or Evening): With the evolution of the workplace, the rules, regulations, rights, and responsibilities that impact on employer and employee are ever changing. This Certificate focuses on the identification of key workplace issues, and the role of the human resource manager in their resolution.

Integrated Marketing Communications (Evening): This Certificate focuses on how the disciplines of advertising, sales, public relations, and publicity can be applied to effectively communicate a message or image to a target market. Among other things, students get hands-on experience in the development and implementation of advertising campaigns, and learn to employ a variety of promotional techniques in a cohesive manner.

International Trade (Day or Evening): With the increasing globalization of business, even small enterprises are involved in international trade on a daily basis. This Certificate focuses on the practical side of doing business across borders. Upon its completion, students will have gained an
understanding of, among other things, the import-export process, international entrepreneurship, foreign investment, logistics, and distribution.

Management (Day or Evening): With work environments becoming increasingly diverse, managers are continually facing new and evolving challenges. The objective of this Certificate is to provide students with the practical tools necessary for effective decision making, problem solving, and relationship building. Courses focus on, among other things, planning for change, job design, organizational structure, and managing employees.

Marketing (Day or Evening): The most successful organizations, large and small, all have one thing in common: the ability to identify and satisfy the needs of their target market better than their competitors. This Certificate exposes students to the elements of product, price, promotion, and distribution.

Purchasing and Inventory Control (Evening): This program is designed for individuals who are beginning a career in purchasing and inventory control. Students who successfully complete specific courses in this program will be permitted to write PMAC (Purchasing Management Association of Canada) accreditation exams. These exams are administered by CAQ (la Corporation des Approvisionneurs du Québec), which is the Québec Institute of PMAC. PMAC is a non-profit corporation with over 8,000 members in 11 institutes across Canada including approximately 1,100 in the province of Québec. Information about PMAC/CAQ membership and its benefits can be found at www.caq.qc.ca.

Courses in Investment Management (Evening):The Business and Administration Department also offers single courses not included in any Certificate program. These include: Stocks, Bonds and Other Investments; Trading in Commodity Futures; and Trading in Options and Personal Financial Planning.

### 21.3 CONTINUING EDUCATION COMPUTER INSTITUTE

CAD - Computer Aided Design (Evening): This hands-on CAD Certificate program is offered to individuals wishing to complement or improve their competitiveness in engineering, architecture, product design, landscaping, or any field where design and drafting are essential. Instruction with two industry-based software programs is offered. The initial PC-based software taught in this Certificate is AutoCAD. Chosen for its flexibility in building models and prototypes and its ability to produce both simple and complex viewpoints, AutoCAD is a leading industry standard. This is especially valid for mid-sized industries, smaller industries, and engineering and architectural firms. A recent addition is the comprehensive software program CATIA. CATIA is utilized throughout North America as a fundamental computer design, analysis, and manufacturing program. It is prevalent in large multinational corporations, especially in major aerospace industry companies, and is widely utilized in the automotive industrial sector. Project work is an integral part of all CAD courses. Students are required to maintain a printed portfolio of their course work. This portfolio can also provide potential industry employers with a means of evaluating graduates of this program.

Database Development and Administration (Intensive One-Year Program): Over the past few years, Oracle has seen its popularity and its market share increase. Using this powerful database tool, this Certificate introduces and thoroughly analyses the different concepts and features related to databases, database applications development, and database management. The theoretical concepts used to design a structurally sound and secure database are complemented with the efficient use of Structured Query Language (SQL) to carry out the tasks of querying and manipulating information. In addition, an exhaustive exposure to database interfaces, namely Oracle Forms and Applications, are paired with a detailed view of the tasks related to database administration, including performance, database security, backup and recovery. Students completing the program will have a solid grasp of database design and will have learned how to avoid data redundancy and assure data integrity. Students will also have gained knowledge in the areas of database application development and the important issues involved in database administration.

Electronic Office Systems Technology (Day or Evening): This practical Certificate program is for those students interested in acquiring the skills needed to succeed in today's workforce. This intensive daytime Certificate allows students to gain the hands-on computer skills that can be easily applied to any business environment, in any sector of the workforce. In under nine weeks, students master the Windows-based software skills which today's employers are seeking.

Foundations in Software Development (Evening): This program is intended to give students a solid grounding in computer fundamentals and help them develop basic programming skills. It is also designed to lay the foundation for entry into the Computer Institute's advanced programming Certificates: Visual Studio.net Programming and Internet Programming.

Information Systems Management (Evening): This Certificate program is intended to complement students' current academic training with a solid overview of the use of computer hardware and software in business, as well as to provide the current techniques and practices needed to properly manage and maintain business information. The Certificate provides students with a sound knowledge and understanding of the concepts required within a Management Information Systems (MIS) environment.

Internet Applications Development (Intensive One-Year Program): To help build successful businesses in today's technologically advanced world, programming for the World Wide Web has become a necessity. This intensive daytime program gives students the solid set of skills required to succeed in this competitive field. They learn how to produce fast and efficient code, design database applications, and work with some of the best tools available, including Sun Microsystem's Java language and Microsoft's Visual Studio.net. Note: An aptitude exam is required for admission to this program.

Internet Programming (Evening): This Certificate gives students the keys to unlock the mysteries of Web programming, using Java, Perl, XML, and Flash. In addition to working with client-based applications, they have the opportunity to see how server side programming functions, allowing them to tie the entire Internet programming process together. Note: An entrance exam may be required.

MCAD - Mechanical Computer Aided Design (Evening): The MCAD Certificate is designed to develop advanced professional skills and techniques required in the industry of mechanical computer aided design. Instruction with two industry-based software programs is offered. Courses are based on the AutoDesk Mechanical Desktop software, recognized as an international industry standard.
This is especially valid for mid-sized industries, smaller industries, and engineering and architectural firms. A recent addition is the comprehensive software program CATIA. CATIA is utilized throughout North America as a fundamental computer design, analysis, and manufacturing program. It is prevalent in large multinational corporations, especially in major aerospace industry companies, and is widely utilized in the automotive industrial sector. Students start with two-dimensional design fundamentals and progress to three-dimensional design. They complete their training utilizing the more complex capabilities of parametric modelling, associative assembly modelling, two-dimensional associative design and drafting, and three-dimensional surface and wire frame modelling. Project work is an integral part of all MCAD courses. Students are required to maintain a printed portfolio of their course work. This portfolio can also provide potential industry employers with a means of evaluating graduates of this program.

Visual Studio.net Programming (Evening): Microsoft's Visual Studio.net is the exciting new tool that is setting the standard for creating Internetintranet applications. The .net integrated development environment (IDE) transcends both operating systems and languages and is Microsoft's most flexible offering yet. This is an advanced Certificate intended for those who would like to upgrade their programming skills to what promises to be the next wave of Internet programming. Whether students are seasoned C/C++ programmers, Visual Basic mavens or COBOL pros, Visual Studio.net allows them to write cross platform applications to suit their needs using XML/SOAP industry standards. Students can build on their existing knowledge of $\mathrm{C}_{++}$and HTML and learn how to program the Internet, using Visual Studio.net. Note: An entrance exam may be required.

### 21.4 CONTINUING EDUCATION LANGUAGE INSTITUTE

## English Language Programs

The Intensive Program ( 240 hours/ 8 levels) is primarily designed to prepare students to enter English-language universities or colleges; however, professionals or business people who require a high level of competency equally benefit from it. A Certificate of Proficiency is awarded upon successful completion of the Advanced 2 level.
Students who successfully complete the Advanced 2 level, with a final grade of $70 \%$, and who wish to continue their full-time studies at Concordia University, will automatically meet the English language proficiency requirements for admission.

The Conversation Program (40 hours/8 levels) is designed to help students improve their speaking and listening skills for social or work-related purposes. A Certificate of Proficiency is awarded upon successful completion of Level 8.

The Writing Workshop Program (40 hours/5 levels) is designed to help students improve their writing skills and master the foundations of good writing from short writing tasks to reports. A Certificate of Proficiency is awarded upon successful completion of Level 5.
The Language Institute also offers special courses: Interactive English Grammar, as well as courses to assist students to prepare to write English-language proficiency tests (all are 40 hours).

## French Language Programs

The French Language Program allows students to register in one of its six levels, according to their proficiency. The program is offered in the morning, the evening, and Saturdays ( 40 hours). It is designed to give students the tools and practice they need in French to encourage and develop their linguistic abilities in their professional and social environment. A Certificate of Proficiency is awarded upon successful completion of Level 6.
In addition, special courses in written French are available to qualified students (40 hours).

## Spanish Language Programs

The Spanish Language Program allows students to register in one of its five levels, according to their proficiency. The program is offered in the afternoon, evening, and Saturdays ( 40 hours). It is designed to give students the tools and practice they need in Spanish to encourage and develop their linguistic abilities in their professional and social environment. A Certificate of Proficiency is awarded upon successful completion of Level 5.

Special language courses in English, French, and Spanish can be created to suit the needs of individual groups. Interested parties should contact the Institute for further information.

### 21.5 GENERAL SEMINARS AND WORKSHOPS

The Computer Institute and the Business and Administration Section regularly offer practical seminars and workshops to professionals, business personnel, and others who wish to enrich their computer and business knowledge and skills. The seminars and workshops are provided either in the Centre's own well-equipped facilities or at other seminar and business locations.
For information on these workshops, contact the Centre for Continuing Education.

### 21.6 HOSPITALITY MANAGEMENT AND TOURISM

Hospitality Management (Day or Evening): This program provides training in the special skills required to manage hotels, restaurants, and institutional and commissary food-service establishments. Students must successfully complete 10 courses to obtain the Certificate in Hospitality Management.

Tourism (Day or Evening): The Tourism program trains people for work in travel agencies, airlines, travel departments and other enterprises within the tourism industry. The courses are valuable to those beginning a career in tourism as well as to experienced travel agency employees interested in upgrading their skills. An intensive eight-week day program is also available. Candidates must successfully complete 10 courses to obtain the Certificate in Tourism.

### 21.7 INSTITUTE IN MANAGEMENT AND COMMUNITY DEVELOPMENT

The Institute in Management and Community Development provides training opportunities to assist those in the voluntary non-profit sector in renewing and developing skills in managing communitybased organizations; developing new skills in fundraising for social change; and training new leadership.
In June, the Institute's Summer Program offers a week of training, national and international in scope, which is open to all and examines community-related issues such as: Community Economic Development, Building Community Involvement and Leadership, Affordable Housing Alternatives, Art and Community Development, and Running Effective Community-Based Organizations. Summer training sessions are taught by practitioners who excel in the field. For more information, contact Lance Evoy or Mireille Landry, 7141 Sherbrooke Street West, Room: CC 326, Montréal, Québec, H4B 1R6, (514)848-3956 or fax (514) 848-4598.

### 21.8 ONLINE LEARNING

The Centre for Continuing Education is now offering a number of its regular non-credit Professional Certificate Program courses over the Internet for those students who require the flexible, convenient delivery that asynchronous Internet learning affords. Students can proceed at their own pace without attending classroom lectures and will receive online support and feedback from the Centre's dedicated and professional teaching staff. All of the online courses are listed in the course description and course schedule sections of the Centre for Continuing Education Calendar. The regular registration deadlines and procedures apply.

# Teacher training and teacher certification 

23.1 INTRODUCTION
23.2 ELIGIBILITY/ADMISSIONS REQUIREMENTS
23.3 APPLICATION FOR ADMISSION AND CERTIFICATION
23.4 CITIZENSHIP REQUIREMENTS
23.5 ASSISTANCE

## 23 teacher training AND TEACHER CERTIFICATION

Teacher Training and Teacher Certification:
Mr. Dominic Martini
Executive Director
Concordia Teacher Education Council
Mailing Address:
Office of the Provost
Concordia University
1455 de Maisonneuve Blvd West
Bishop Court, Room 223
Montréal, Québec H3G 1M8
(514) 848-4865/4868

### 23.1 INTRODUCTION

The Ministry of Education of Québec (MEQ) certifies teachers for the primary and secondary schools of the province, following completion of an approved 120-credit program. The MEQ recognizes Concordia University as a centre for teacher training. Concordia offers three MEQ-approved programs that grant teaching licences (brevets d'enseignement). Because Concordia University has chosen not to organize its teacher training programs into a single faculty, the programs are listed under different faculties and departments. Students interested in pursuing teacher training and certification are asked to consult with the appropriate faculties and academic departments for further information. These are:

## Faculty of Arts and Science

Department of Education (See §31.090 and §31.090.1)

- Bachelor of Arts (BA), Specialization in Early Childhood and Elementary Education (120 credits)
- Bachelor of Education (BEd), Specialization in Teaching English as a Second Language ( 120 credits)

Faculty of Fine Arts
Department of Art Education/Art Therapy (See §81.40)

- Bachelor of Fine Arts (BFA), Specialization in Art Education (120 credits)

Concordia offers other Certificate and Diploma programs. Please refer to the Undergraduate Calendar for Certificate programs, and the School of Graduate Studies Calendar for Diploma and Graduate Certificate programs.

### 23.2 ELIGIBILITY/ADMISSIONS REQUIREMENTS

It is important to review the admissions regulations (see §13.3) and residency requirements (see §16.1.3) for eligibility in the MEQ-approved programs.

### 23.3 APPLICATION FOR ADMISSION AND CERTIFICATION

Application forms are available from the Office of the Registrar. In addition, a separate department application form is required for the BA Specialization in Early Childhood and Elementary Education and for the BEd Specialization in Teaching English as a Second Language. These application forms should be downloaded from the Department of Education's Web site: http://doe.concordia.ca. Prior to graduation, forms to apply for teacher certification are available from the Office of the Registrar.

### 23.4 CITIZENSHIP REQUIREMENTS

Permanent teacher certification in Québec is only available for Canadian Citizens and students who have Landed Immigrant status or who hold an appropriate work permit in accordance with Immigration Law of Québec (L.R.Q., I-0.2).

### 23.5 ASSISTANCE

Graduates of Concordia University with certification problems should contact:
Direction de la formation et de la titularisation du personnel scolaire
Ministère de l'Éducation
1035, rue de la Chevrotière, $28^{\text {e }}$ étage
Québec (Québec) G1R 5A5
Telephone: (418) 643-2948
Fax: (418) 643-2149

## Institute for co-operative education

Principal/Director
Christine Webb
Vice Principal
CRAIG BROWN
Fellows and Program Directors ARSHAD AHMAD, Associate Professor, Finance (Director, Finance Co-op) MERAL BUUUKKKURT, Associate Professor, Decision Sciences and Management Information Systems (Director, Management Information Systems Co-op)
MARTHE J. CATRY-VERRON, Adjunct
Associate Professor, Études françaises
(Director, French Translation Co-op)
MARIA ELEKTOROWICZ, Associate Professor, Building, Civil and Environmental Engineering
(Director, Building and Civil Engineering Co-op) GERARD J. GOUW, Associate Professor, Mechanical and Industrial Engineering (Director, Mechanical and Industrial Engineering Co-op)

RAJAGOPALAN JAYAKUMAR, Associate Professor, Computer Science (Director, Computer Science Co-op) FERHAT KHENDEK, Associate Professor, Electrical and Computer Engineering (Director, Electrical and Computer Engineering Co-op) SÉBASTIEN ROBIDOUX, Assistant Professor, Chemistry and Biochemistry (Director, Chemistry and Biochemistry Co-op) SANDRA M. ROBINSON, Lecturer, Accountancy (Director, Accountancy Co-op) BALBIR S. SAHNI, Associate Professor, Economics (Director, Economics Co-op) BARBARA SHAPIRO, Lecturer, Management (Director, Human Resource Management Co-op) HAROLD J. SIMPKINS, Lecturer, Marketing (Director, Marketing Co-op)<br>MANFRED E. SZABO, Professor, Mathematics and Statistics (Director, Mathematics and Statistics Co-op)

The University through the Institute for Co-operative Education offers programs in the co-operative format in the Departments of Chemistry and Biochemistry, Economics, French Translation, and Mathematics and Statistics in the Faculty of Arts and Science; in all Departments of Engineering and the Department of Computer Science in the Faculty of Engineering and Computer Science; in the Departments of Accountancy, Finance, Decision Sciences and Management Information Systems, Human Resource Management, and Marketing in the John Molson School of Business; and in Digital Image/Sound in the Faculty of Fine Arts.
As it becomes feasible, the University may consider offering other disciplines in the co-op format.

## The Co-op Philosophy

Co-operative education is a structured educational strategy integrating academic studies with learning through program-relevant work experiences. It provides progressive experiences in integrating theory and practice, giving students the opportunity to transfer knowledge and skills between work and classroom settings.

## Advantages of a Co-op Education

Integrating theory and practice in a structured and purposeful manner allows the student to come to terms with the realities of professional practice in a way that allows for the development of self-confidence, self-reliance, and self-motivation. From the Work terms, students learn to accept responsibility and the importance of deadlines. Realistic career expectations may be more easily formed. In the Institute, besides technical knowledge and practical experience, students gain skills in interpersonal relations through participation in seminars, workshops, talks, and social activities.
Employers benefit as well. The employer who agrees to cooperate with the Institute benefits from the opportunity to evaluate prospective personnel without making permanent employment commitments and from the availability of students on a year-round basis. In recruiting permanent employees, they have available to them trained graduates with work experience who can be productive with little or no training period.
The collaboration between employers and faculty is mutually beneficial, providing an opportunity for employers to contribute to, and influence, the educational process, and for the faculty to become aware of the latest developments in industry. In some cases joint industry-university research projects result.

## Admission to Co-op

Admission to co-op is selective based on academic performance, as well as other factors such as extracurricular activities, communication skills, motivation, personality, and drive. Applicants must be legally eligible to work in the public and private sectors.
Students applying should so indicate by filling the appropriate box on the University Admissions form. Selected applicants will normally be interviewed by the appropriate co-op committee. Applicants may
be asked to provide a résumé of past work experience and a statement of the reasons for their interest in the co-op format.
Students accepted to the program will be assigned a co-op adviser from within their academic department. It should be noted that, in the Faculty of Arts and Science, only Honours and Specialization programs are offered in the co-op format.

## Co-op Fee

Students should note that a co-op fee was instituted to cover in part the administrative costs particular to the co-op program. This fee is currently $\$ 185$ per term and is charged for the second to penultimate terms inclusive. Students requiring less than the normal number of terms to complete their programs in the co-op format are subject to the same total fee as those requiring the normal number of terms. Co-op fees are due one month before the first day of eligible terms and are not refundable after the first day of the second month of the term, i.e., February 1, June 1 and October 1.

## Co-op Performance Requirements

Students permitted to undertake their studies in the co-op format enrol as regular undergraduates in their program and are subject to its academic regulations. However, higher performance standards are often required to continue in the co-op format.
Students undertaking the co-op format in a program offered by the Faculty of Arts and Science are normally required to maintain a GPA of 2.50 , and normally with no grade lower than a "D" in any course, elective or required. Students registered in Honours programs must meet the Faculty Honours program academic requirements.
Students registered in the co-op programs in the Faculty of Engineering and Computer Science are normally required to maintain an overall GPA of 2.70 with no single term below 2.50 .
Students registered in the co-op programs in the John Molson School of Business are normally required to maintain an annual GPA of 2.70 or better.
The evaluation of each of the required Work terms will be based on the submission of a work-term report by the student and the evaluation of the student's performance by University representatives with input from the employer. The student must successfully complete both components to pass the Work Term which is marked on a pass/fail basis. The work-term reports are not considered for degree credits.
Failure to meet the co-op academic requirements or failure to complete a Work Term will normally result in the withdrawal of the student from the Institute for Co-operative Education.

## Work Term

Co-operative education at Concordia is not to be construed as a placement operation or an inexpensive labour apprenticeship. The Work Term is an essential part of the student's learning experience and there is to be equitable remuneration paid for work performed. The University is responsible for negotiating Work terms with employers who provide job descriptions to the Institute for Co-operative Education. The procedures for matching students to employers are managed by the Institute. Students must be willing to work anywhere in Canada, and may go abroad for a Work Term. Students are required to be enrolled in an Academic Study Term during the final term of their co-op program. A co-op coordinator or participating faculty member visits the students at their place of work to evaluate the work performance, gauge the learning opportunities, assess the compatibility of student and employer and, if necessary, take corrective action. It should be noted that the University does not guarantee every student a job.

## UNDERGRADUATE PROGRAMS

## Co-op programs offered in the Faculty of Arts and Science:

## Chemistry and Biochemistry Co-op

Program Director: Sébastien Robidoux, (514) 848-3377
The Chemistry and Biochemistry co-operative program is offered to students who are enrolled in the BSc Honours or Specialization in Chemistry, Biochemistry, Analytical Chemistry.
Students in Chemistry and Biochemistry co-op take the regular academic program; however, in the Work terms the employment opportunities range among a wide variety of industrial and government agencies located throughout Canada. Students are encouraged to choose their work-term positions in a way which provides them with experience ranging from basic analysis in industrial processes and environmental control to senior research placements in the laboratories of various employers. For specific details concerning the curriculum please see $\S 31.050$.

## Economics Co-op

Program Director: Dr. Balbir S. Sahni, (514) 848-3902
The Economics co-operative program enables students to complete a BA Honours or Specialization in Economics. The academic content of the Economics co-op program is identical to the regular
program; however, the required Work terms provide the co-op student with the unique opportunity of experiencing economics in an applied format.
Because of the course choices available, an Economics co-op student is prepared to undertake employment during his or her Work terms in a variety of public sectors including Provincial and federal government agencies. Private sector positions might include placements in banks, consulting firms, or planning departments in a variety of industries. For specific details concerning the curriculum please see §31.080.

## French Translation Co-op

Program Director: Marthe J. Catry-Verron, (514) 848-7518
The Translation co-operative program enables students to complete a specialized BA in Translation. The Translation co-op program is identical to the regular program; however, the required Work terms provide the co-op students with the unique opportunity to apply their translation skills in the government and corporate sectors. Work opportunities are found in environments such as government ministries, communication departments, and various organizations such as technical publishers, consultants, advertising agencies, and similar. For specific details concerning the curriculum please see §31.110.

## Mathematics and Statistics Co-op

Program Director: Dr. Manfred E. Szabo, (514) 848-3251
The Mathematics and Statistics co-operative program allows students to complete the BA or BSc degrees with Honours or Specialization in Mathematics, Applied Mathematics, Statistics, or Actuarial Mathematics. The academic content of the Mathematics and Statistics co-op programs is identical to the regular programs.
Work terms provide co-op students with the opportunity to gain practical experience with a variety of employers, such as insurance companies, consulting firms, large Canadian corporations, government departments, and research establishments. For specific details concerning the curriculum please see §31.200.

Co-op programs offered in the John Molson School of Business:

## Accountancy Co-op

Program Director: Sandra M. Robinson, (514) 848-2748
The Accountancy co-operative program is available to students who are enrolled in the BComm program and are majoring in Accountancy. The academic content is very similar to that of the regular programs, with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. While it is hoped that most of the positions will be in the Montréal area, students must be prepared to work in other parts of Canada. For specific details concerning the curriculum please see $\S 61.40$.

## Finance Co-op

Program Director: Arshad Ahmad, (514) 848-2928
The Finance co-operative program is available to students who are enrolled in the BComm program and are majoring in Finance. The academic content is very similar to that of the regular programs, with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. Most of the positions will be in the Montréal area, however, students must be prepared to work in other parts of Canada. For specific details concerning the curriculum please see $\S 61.70$.

## Human Resource Management Co-op

Program Director: Barbara Shapiro, (514) 848-2780
The Human Resource Management co-operative program is available to students who are enrolled in the BComm program and are majoring in Human Resource Management. The academic content is very similar to that of the regular programs, with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. While it is hoped that most of the positions will be in the Montréal area, students must be prepared to work in other parts of Canada. For specific details concerning the curriculum please see $\S 61.90$.

## Management Information Systems Co-op

Program Director: Dr. Meral Büyükkurt, (514) 848-2741
The Management Information Systems co-operative program is available to students who are enrolled in the BComm program and are majoring in Management Information Systems. The academic content
is very similar to that of the regular programs, with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. While it is hoped that most of the positions will be in the Montréal area, students must be prepared to work in other parts of Canada. For specific details concerning the curriculum please see $\S 61.40$.

## Marketing Co-op

Program Director: Harold J. Simpkins, (514) 848-2955
The Marketing co-operative program is available to students who are enrolled in the BComm program and are majoring in Marketing. The academic content is very similar to that of the regular programs, with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. The program is new and while it is hoped that most of the positions will be in the Montréal area, students must be prepared to work in other parts of Canada. For specific details concerning the curriculum please see $\S 61.100$.

## Co-op programs offered in the Faculty of Engineering and Computer Science:

## Building and Civil Engineering Co-op

Program Director: Dr. Maria Elektorowicz, (514) 848-7805
The Building and Civil Engineering programs are offered in the co-op format to selected students pursuing undergraduate studies leading to the degree of BEng. The academic content of the co-op program is identical to the regular program but requires one additional course per term. Work-term opportunities range from a variety of industrial, government, and consulting organizations in and out of town. Students are encouraged to choose placement in both public and private sectors, and to mix office experience with site work. Please refer to $\S 71.10 .8$ and 71.50 for specific information on program and performance requirements.

## Electrical and Computer Engineering Co-op

Program Director: Ferhat Khendek, (514) 848-3081
The Electrical and Computer Engineering programs are offered in the co-op format to selected students pursuing undergraduate studies leading to the degree of BEng. The academic content of the co-op program is identical to the regular program but requires one additional course per term. Work-term opportunities range from a variety of industrial, government, and consulting organizations in and out of town. Students are encouraged to choose placement in both public and private sectors, and to mix office experience with site work. Please refer to $\S 71.10 .8$ and 71.50 for specific information on program and performance requirements.

## Mechanical and Industrial Engineering Co-op

Program Director: Dr. Gerard J. Gouw, (514) 848-4197
The Mechanical and Industrial Engineering programs are offered in the co-op format to selected students pursuing undergraduate studies leading to the degree of BEng. The academic content of the co-op program is identical to the regular program but requires one additional course per term. Work-term opportunities range from a variety of industrial, government, and consulting organizations in and out of town. Students are encouraged to choose placement in both public and private sectors, and to mix office experience with site work. Please refer to $\S 71.10 .8$ and 71.40 for specific information on program and performance requirements.

## Software Engineering Co-op

Program Director: Dr. Rajagopalan Jayakumar, (514) 848-3011
The Computer Science Department offers a co-operative program in Software Engineering. This is a four-year program which will lead to professional engineering qualifications in Software Engineering. The academic content is a mix of Computer Science and Engineering courses and is similar to that of the regular programs. For further details please see $\S 71.70$.

## Computer Science Co-op

Program Director: Dr. Rajagopalan Jayakumar, (514) 848-3011
All options in the Computer Science program are offered in the co-op format to selected students enrolled in the BCompSc program. Co-op students in Computer Science take the regular academic program; however, they have the opportunity through the Work terms to experience computer science in the government and corporate sectors. As students near the end of their studies, they are able to choose placements directly related to their option, i.e. information systems, software systems, or systems architecture. Please refer to $\S 71.10 .8$ and 71.70 for specific information on program and performance requirements.

## CO-OP SCHEDULE

Activity flow-chart for students undertaking their programs in the co-op format except for the Engineering and the French Translation Co-ops:

| YEAR | FALL | WINTER <br> Sept.-Dec. | SUMMER <br> May-Aug. |
| :---: | :--- | :--- | :--- |
| 1 | $1^{\text {st }}$ Campus Term | $2^{\text {nd }}$ Campus Term | Work Term I |
| 2 | $3^{\text {td }}$ Campus Term | Work Term II | $4^{\text {th }}$ Campus Term |
| 3 | Work Term III | $5^{\text {th }}$ Campus Term | Work Term IV |
| 4 | $6^{\text {th }}$ Campus Term |  |  |

Activity flow-chart for students undertaking the Engineering Co-op Programs:

| YEAR | FALL | WINTER <br> Sept.-Dec. | SUMMER <br> May-Aug. |
| :---: | :--- | :--- | :--- |
| 1 | $1^{\text {st }}$ Campus Term | $2^{\text {nd }}$ Campus Term | $3^{\text {rd }}$ Campus Term |
| 2 | Work Term I | $4^{\text {th }}$ Campus Term | Work Term II |
| 3 | $5^{\text {th }}$ Campus Term | Work Term III | Work Term IV |
| 4 | $6^{\text {th }}$ Campus Term | $7^{\text {th }}$ Campus Term |  |

NOTE 1: The above activity flow-chart is for students admitted into the co-op format in the Fall Term of the first year of their academic program. However, students may be admitted at the start of its Winter Term, following their September entry, with special permission. All are required to register as full-time students, and they must plan their studies to give a reasonable division of the total credits required for their degree between the specified number of Campus terms. Students eligible to apply for NSERC grants should note that they must take at least 15 credits per term to be considered. NOTE 2: The Work Term negotiated with the employer is for a minimum of fourteen weeks. Extension beyond this period, to a maximum of seventeen weeks, is at the sole discretion of the employer. To complete the requirements of each Work Term, a student's work performance and work-term report must be assessed as "pass" in accordance with the procedure specified under "Co-op Performance Requirements".

## CONTACTS AT THE INSTITUTE

| Principal/Director | Coordinators |
| :--- | :--- |
| Christine Webb | Nadine Benjamin |
| (514) 848-3951 | (514) 848-3941 |
| Vice Principal | Sally Craig |
| Craig Brown | (514) 848-2928 |
| (514) 848-3973 | Josée Labrosse |
| Public Relations and Communications | (514) 848-3944 |
| Sharon Bishin | Louise Lalonde |
| (514) 848-3952 | (514) 848-3954 |
| Co-op Program Administrator | Eve Pankovitch |
| Lynn Bergeron | (514) 848-3953 |
| (514) 848-3975 |  |

## Receptionist

T.B.A.
(514) 848-3950

## CONVOCATION MEDALS AND PRIZES

25.1 GOVERNOR GENERAL'S AWARD<br>25.2 UNIVERSITY AWARDS<br>25.3 FACULTY AWARDS<br>25.3.1 Faculty of Arts and Science<br>25.3.2 John Molson School of Business<br>25.3.3 Faculty of Engineering and Computer Science<br>25.3.4 Faculty of Fine Arts<br>SPECIAL AWARDS

### 25.1 GOVERNOR GENERAL'S AWARD

The Governor General's Silver Medal: Presented by her Excellency, the Governor General of Canada, and awarded to the highest ranking undergraduate student graduating from Concordia University.

### 25.2 UNIVERSITY AWARDS

The Final Graduation GPA is used as the basis to determine the highest ranking student.
The Birks Medal: Presented by Henry Birks \& Sons (Montréal) Ltd., and awarded to the highest ranking student graduating with a BA degree.

The Anne Stokes Medal: Awarded to the highest ranking student graduating with a BEd degree in Teaching of English as a Second Language.

The Mappin Medal: Presented by the Mappin Family, and awarded to the highest ranking student graduating with a BSc degree.

The Administration Medal: Awarded to the highest ranking student graduating with a BAdmin degree.
The Charles E. Frosst Medal: Presented by Merck-Frosst Canada Inc., and awarded to the highest ranking student graduating with a BComm degree.

The Computer Science Medal: Awarded to the highest ranking student graduating with a BCompSc degree.

The Chait Medal: Awarded to the highest ranking student graduating with a BEng degree.
The Alfred Pinsky Medal: Awarded to the most outstanding student graduating with a BFA degree.

### 25.3 FACULTY AWARDS

The prizes listed in this section are awarded to the most outstanding graduating student in a department (or unit). Candidates are nominated by the departments or units for consideration and approved by the appropriate Faculty Council and Senate. The departments or units in making their selection may include, in addition to a high grade point average, other criteria such as number and/or level of the courses taken, outstanding results on a project or essay, or a significant contribution to the extra-curricular life of the department. In the Faculty of Engineering and Computer Science, the Final Graduation GPA is used as the basis to determine the grade point average.

|  | The Biology Prize |
| :--- | :--- |
| 25.3.1 | The Chemistry Medal |
| Faculty of Arts | The Classics Book Prize |
| and Science | The John E. O'Brien, s.j. Medal for Communication Studies |
|  | The Economics Prize |
|  | The Education Book Prize |
|  | The Medal for English |
|  | Le prix Paul d'Hollander pour les Études françaises |
| The Exercise Science Plaque |  |
|  | The Bogdan Zaborski Medal in Geography |
|  | The André Deland Medal for Geology |
|  | The Martin Lewis Memorial Book Prize in History |
|  | The Robert C. Rae Book Prize in Human Relations |
|  | The Interdisciplinary Studies Medal |
|  | The Gordon Fisher Prize for Journalism |
|  | The Leisure Sciences Medal |
| The Liberal Arts College Prize |  |
| The Library Studies Plaque |  |
| The Lonergan University College Prize |  |

The Eric O'Connor Mathematics Medal<br>The Modern Languages and Linguistics Plaque<br>The W.R. Fraser Medal for Philosophy<br>The Walter Raudorf Medal for Physics<br>The Renée Vautelet Prize for Political Science<br>The J.W. Bridges Medal for Psychology<br>The Boyd Sinyard Prize for Religion<br>The Vince Sirois Prize (School of Community and Public Affairs)<br>The Science College Prize<br>The Everett C. Hughes Medal for Sociology and Anthropology<br>The Theological Studies Medal<br>The Thérèse F. Casgrain Medal for Women's Studies

| 25.3.2 <br> John Molson <br> School of Business | The Ross Medal for Accountancy <br> The Decision Sciences and Management Information Systems Medal <br> The Finance Medal <br> The International Business Medal <br> The Management Medal <br> The Marketing Medal |
| :---: | :---: |
| 25.3.3 <br> Faculty of Engineering and Computer Science | The Building Engineering Medal <br> The Matthew Douglass Medal for Civil Engineering <br> The Computer Engineering Medal <br> The Phoivos Ziogas Medal for Electrical Engineering <br> The Jaan Saber Medal for Industrial Engineering <br> The Mechanical Engineering Medal <br> The Software Engineering Medal |
| 25.3.4 <br> Faculty of Fine Arts | The Art Education Prize <br> The Art History Prize <br> The Cinema Prize <br> The Contemporary Dance Prize <br> The Design Art Prize <br> The Music Prize <br> The Yves Gaucher Prize in Studio Arts <br> The Betty Goodwin Prize in Studio Arts <br> The Guido Molinari Prize in Studio Arts <br> The Gabor Szilasi Prize in Studio Arts <br> The Studio Arts Prize <br> The Theatre Prize |

### 25.4 Special Awards (Awards are given only when merited)

The Concordia Medal: Presented by the Concordia University Alumni Association to an undergraduate graduating student who has displayed distinctive leadership ability through both academic and non-academic achievements and has won the outstanding commendation of his/her fellows and of the faculty.

The First Graduating Class Award: Presented on behalf of the first graduating class of the Faculty of Arts, Science and Commerce of Sir George Williams College, known as the Guinea Pig Club, for the most innovative and new contribution either academic or extra-curricular to University life.

The Lieutenant Governor's Award: Presented by the Honourable Lieutenant Governor of Québec and awarded to an undergraduate graduating student in recognition of her/his social involvement and commitment to the community.

The Malone Medal: Presented in honour of Rev. Patrick G. Malone, s.j., and awarded to the undergraduate graduating student whose efforts and dedication best exemplify the values of the University within the internal Concordia community.

The O'Brien Medal: Presented in honour of Dr. J.W. O'Brien and awarded to the undergraduate graduating student whose efforts and dedication best exemplify the values of the University within the larger external community.

## Faculty OF ARTS AND SCIENCE

| 31.001 | FACULTY OF ARTS AND SCIENCE |
| :---: | :---: |
| 31.002 | PROGRAMS AND ADMISSION REQUIREMENTS |
| 31.003 | DEGREE REQUIREMENTS |
| 31.004 | GENERAL EDUCATION |
|  | ADULT EDUCATION (See 31.090.2) |
| 31.010 | APPLIED HUMAN SCIENCES |
| 31.030 | BIOLOGY |
|  | CANADIAN IRISH STUDIES (See 31.170) |
| 31.050 | CHEMISTRY AND BIOCHEMISTRY |
| 31.060 | CLASSICS, MODERN LANGUAGES AND LINGUISTICS |
| 31.070 | COMMUNICATION STUDIES |
| 31.080 | ECONOMICS |
| 31.090 | EDUCATION |
| 31.100 | ENGLISH |
|  | ENGLISH AS A SECOND LANGUAGE (See 31.090.1) |
| 31.110 | ÉTUDES FRANÇAISES |
| 31.120 | EXERCISE SCIENCE |
| 31.130 | GEOGRAPHY |
|  | GEOLOGY (See 31.130.2) |
| 31.160 | HISTORY |
|  | INFORMATION STUDIES (See 31.090) |
|  | INTERDISCIPLINARY ELECTIVE GROUPS (See 31.170) |
| 31.170 | INTERDISCIPLINARY STUDIES |
|  | INTERDISCIPLINARY STUDIES IN SEXUALITY (See 31.170) |
| 31.180 | JOURNALISM |
|  | LEISURE SCIENCES (See 31.010) |
| 31.200 | MATHEMATICS AND STATISTICS |
| 31.220 | PHILOSOPHY |
| 31.230 | PHYSICS |
| 31.240 | POLITICAL SCIENCE |
| 31.250 | PSYCHOLOGY |
| 31.270 | RELIGION |
| 31.300 | SCIENCE AND HUMAN AFFAIRS |
| 31.310 | SOCIOLOGY AND ANTHROPOLOGY |
|  | SOUTHERN ASIA STUDIES (See 31.170) |
|  | TEACHING OF ENGLISH AS A SECOND LANGUAGE (See 31.090.1) |
| 31.330 | THEOLOGICAL STUDIES |
|  | URBAN STUDIES (See 31.130.1) |
|  | WOMEN'S STUDIES (See 31.560) |
| 31.400 | COMPUTER SCIENCE (Minor) |
| 31.500 | COLLEGES, INSTITUTES AND SCHOOLS |
| 31.515 | CO-OPERATIVE EDUCATION |
| 31.520 | LIBERAL ARTS COLLEGE |
| 31.530 | LONERGAN UNIVERSITY COLLEGE |
| 31.535 | LOYOLA INTERNATIONAL COLLEGE |
| 31.540 | SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS |
| 31.550 | SCIENCE COLLEGE |
| 31.560 | SIMONE DE BEAUVOIR INSTITUTE and WOMEN'S STUDIES |

## $31.001 \begin{aligned} & \text { FaCulty of arts } \\ & \text { aND SCIENCE }\end{aligned}$

## Dean

MARTIN SINGER
Vice-Dean, Planning
ROBERT M. ROY
Vice-Dean, Administrative Affairs
WILLIAM KNITTER

Vice-Dean, Curriculum and Appraisals
JOANNE LOCKE
Vice-Dean, Student Affairs
ROBERT D. KILGOUR
Vice-Dean, Research and International Relations JOHN A. CAPOBIANCO

Sir George Williams Campus
Library Building, Room: LB 689 (514) 848-2080

Administration Building, Room: AD 229
(514) 848-2080

The Faculty of Arts and Science, comprised of the former Loyola Faculty of Arts and Science, the former Sir George Williams Faculty of Arts, and the former Sir George Williams Faculty of Science, was brought into being on July 1, 1977.
For administrative purposes, the Faculty consists of departments, programs, Centres, Colleges, Institutes, and Schools.
The Departments and other units of which the Faculty is comprised are as follows:

Departments
Applied Human Sciences
Biology
Chemistry and Biochemistry
Classics, Modern Languages and Linguistics
Communication Studies
Economics
Education
English
Études françaises
Exercise Science
Geography
History
Journalism
Mathematics and Statistics
Philosophy
Physics
Political Science
Psychology
Religion
Sociology and Anthropology
Theological Studies

## Centre

Canadian Irish Studies
Colleges
Liberal Arts College
Lonergan University College
Loyola International College
School of Community and Public Affairs
Science College
Simone de Beauvoir Institute
Programs
Canadian Irish Studies
Geology
Individually Structured Program
Southern Asia Studies
Urban Studies
Women's Studies

The Faculty of Arts and Science is committed to responsible and innovative leadership in developing and disseminating knowledge and values and encouraging constructive social criticism. The Faculty achieves these objectives through inclusive and accessible academic programs which stress a broadbased, interdisciplinary approach to learning. We are dedicated to superior teaching and research supported by excellence in scholarship and creative activity, and a tradition of service to the community. The Faculty of Arts and Science serves many interdependent academic communities in an urban environment where students and faculty can pursue their shared commitment to lifelong learning.

## Studies in Arts and Science

The Faculty of Arts and Science encourages all students to explore beyond the boundaries of their programs of concentration. This is facilitated by the program structure and graduation requirements of the undergraduate degrees (see $\S 31.002$ and 31.003 ).
Undergraduate degrees normally require 90 credits of course work, consisting of at least one program of concentration (Major at 36 to 48 credits; Specialization or Honours at 60 or more credits). The balance
of the degree requirements may be made up of one or more Minors ( 24 to 30 credits), one or more elective groups ( 15 or 18 credits), or by courses selected from a broad spectrum of disciplines Students are required to complete at least 24 credits outside the main area of concentration. Most Major programs are relatively short, allowing maximal development of interests outside the area of concentration. Two areas of concentration can be combined in a Double Major. Even longer programs (Specialization and Honours) allow students to diversify their studies for up to one third of their degree requirements.
Program structures thus permit students to obtain a judicious balance between concentrated study and exploration of broader interests. Department and Faculty advisers are available to help students develop a plan of study which accommodates their personal interests and satisfies degree requirements.
Programs of concentration and related Minors are published in the Calendar entries for each of the disciplines in the Faculty ( $\$ 31.010$ onward). To facilitate innovative exploration outside these standard disciplines, the Faculty offers many alternatives. First, the University has established six Colleges ( $\$ 31.500$ onward) which foster various philosophies and methods of education on an intimate scale. Second, it has created Majors which cross disciplinary boundaries (Southern Asia Studies and Women's Studies). In addition, selected students may create their own Individually Structured Program (§31.170) under the direction of the Faculty adviser. Finally, the Faculty offers cross-disciplinary Minors (for example, Canadian Irish Studies, Southern Asia Studies, and Women's Studies) and a number of Interdisciplinary courses ( $\$ 31.170$ ) which may be chosen as electives in any program.
A good education - balancing the development of expert knowledge in a narrow domain with broader academic experience - can be obtained in the Faculty of Arts and Science. The programs outlined are best considered as models of what can be planned by imaginative students and their academic advisers.

### 31.002 PROGRAMS AND ADMISSION REQUIREMENTS

General admission requirements are listed in $\S 13$.
Specific requirements for admission to the various programs leading to the BA, BEd, and BSc degrees, and to Certificates, are set out in the first column of the following listings. They refer to the table of cégep pre-Arts and pre-Science profiles defined below. Students lacking one or more of these prerequisites may be admitted, but must include the designated prerequisites among the first 30 credits of their undergraduate program. In certain cases, the prerequisites must be taken in addition to the undergraduate program.

| Profile | Requirements |
| ---: | :--- |
| 0.00 | Diploma of Collegial Studies (DEC - Diplôme d'études collégiales). |
| 0.72 | DEC or equivalent and appropriate teaching licence. |
| 0.80 | Full-time teaching position with an educational institution recognized by the Ministry of <br> Education of Québec (MEQ) and a Provisional Teaching Authorization from the MEQ. |
| 3.14 | Biology 301, 401, 911, 921 or 101-NYA. |
| 4.03 | Social Science DEC plus Mathematics 300 and Biology 921 (Social Science DEC <br> includes Introductory Psychology). |
| 4.10 | DEC in Humanities or equivalent. Any other DEC including courses in Psychology and <br> Quantitative Methods or its equivalent. |
| 5.00 | Natural Science DEC. |
| 6.00 | DEC intégré en sciences, lettres et arts. |
| 10.1 | Mathematics 337 or 103 and 307 or 201-NYA and 307; Biology 301, 401, 911, 921 or <br> 101-NYA; Psychology 101 or 102. |
| 10.5 | Two cégep courses or equivalent in the language to be studied. If these courses have <br> not been available in the cégep attended, the student may be required to complete <br> them at the university level. |
| 10.9 | Mathematics 103 or 201-NYA and 203 or 201-NYB; Physics 101 or 203-NYA and 201 <br> or 203-NYB and 301 or 203-NYC; Chemistry 101 or 202-NYA and 201 or 202-NYB; <br> Biology 301 or 101-NYA. |
| 10.10 | Mathematics 103 or 201-NYA and 203 or 201-NYB and 105 or 201-NYC; Physics 101 <br> or 203-NYA and 201 or 203-NYB and 301 or 203-NYC; Chemistry 101 or 202-NYA and <br> 201 or 202-NYB; Biology 301 or 101-NYA. |

10.13 There are no particular requirements for graduates of an anglophone cégep other than the DEC. Graduates of a francophone cégep must hold a DEC with an advanced course in English or have an equivalent background in English.

A: Interview
G: Letter of intent
K: Submission of a portfolio of representative work
$\mathrm{N}: \quad$ Placement test
P: Competency in written and oral French, to be determined by a proficiency test, the results of which may lead to the rejection of the candidate or the requirement of additional university courses.

Q: Competency in written and oral English, to be determined by a proficiency test, the results of which may lead to the rejection of the candidate or the requirement of additional university courses.
+: Two letters of reference

Program titles refer to Honours, Specialization and Major components where these exist. Full information about the programs offered under each title (including combinations with programs in other disciplines) is to be found in the section of the Calendar specified in the third column below.

## BA, BSc, BEd

| Profile | Program | Calendar Section |
| :--- | :--- | :--- |
|  |  |  |
| $0.00 A^{\text {Cert. only }}$ | Adult Education | 31.090 .2 |
| 0.00 | Anthropology | 31.310 |
| 0.00 | Anthropology and Sociology | 31.310 |
| $10.9 / 5.00 / 6.00$ | Biochemistry | 31.050 |
| $10.9 / 5.00 / 6.00$ | Biology | 31.030 |
| $10.9 / 5.00 / 6.00$ | Cell and Molecular Biology | 31.030 |
| 0.00 | Canadian Irish Studies | 31.170 |
| $10.9 / 5.00 / 6.00$ | Chemistry | 31.050 |
| 0.00 | Child Studies | 31.090 |
| 0.00 | Classics | 31.060 |
| $0.00 \mathrm{~A}, \mathrm{G}, \mathrm{K},+$ | Communication Studies | 31.070 |
| $0.00 \mathrm{~A}, \mathrm{G},+$ | Communication and Cultural Studies | 31.070 |
| $0.00 \mathrm{~A}, \mathrm{G}, \mathrm{K}, \mathrm{Q},+$ | Communication and Journalism | $31.070,31.180$ |
| 0.00 | Community and Ethnic Studies | 31.310 |
| $0.00 \mathrm{~A}, \mathrm{P,Q}$ | Community, Public Affairs and Policy Studies | 31.540 |
| 0.00 G | Community Service | 31.010 |
| $0.00 \mathrm{G}, \mathrm{K}$ | Creative Writing (see also English and Creative Writing) | 31.100 |
| $0.00 \mathrm{~A}+$ | Early Childhood and Elementary Education | 31.090 |
| $10.9 / 5.00 / 6.00$ | Ecology | 31.030 |
| 0.00 | Economics | 31.080 |
| 0.00 | Education: Adult Education | 31.090 .2 |
|  | Education (see Child Studies; Early Childhood and |  |
|  | Elementary Education; Teaching of English as a Second Language) |  |
| 0.00 | English (see also Creative Writing; Professional Writing) | 31.100 |
| $0.00 \mathrm{G}, \mathrm{K}$ | English and Creative Writing | 31.100 |
| 0.00 | English and History | $31.100,31.160$ |
| 0.00 | English Literature | 31.100 |
| 10.5 | Études françaises (Spécialisation) | 31.10 |
|  | Études françaises | 31.110 |
| 10.5 | Option: Langue ou littératures de langue française |  |
| 10.5 | Option: Langue et didactique |  |
| 10.5 | Option: Traduction |  |
| 10.5 | Spécialisation en traduction |  |
| 0.00 | Langue française (Mineure et certificat) |  |
| 10.5 | Littératures de langue française (Mineure) |  |
|  |  |  |


| Profile | Program | Calendar Section |
| :---: | :---: | :---: |
| 10.9/5.00/6.00 | Exercise Science | 31.120 |
| 10.9/5.00/6.00 | Exercise Science (Clinical Exercise Physiology, Athletic Therapy) | 31.120 |
| 0.00G | Family Life Education French Studies - see Études françaises | 31.010 |
| 0.00 | General Certificate in Arts and Science | 31.001 |
| 0.00 | Geography (BA), Human Environment | 31.130 |
| 10.9/5.00/6.00 | Geography (BSc), Environmental Geography | 31.130 |
| 10.10/5.00/6.00 | Geography (BSc), Environmental Science | 31.130 |
| 10.9/5.00/6.00 | Geology | 31.130 .2 |
| 10.5/6.00 | German | 31.060 |
| 0.00 | History | 31.160 |
| 0.00 | History and English | $31.160,31.100$ |
| 0.00G | Human Relations | 31.010 |
| 0.00 | Information Studies | 31.090 |
| Appropriate | Interdisciplinary Studies Individually Structured Program | 31.170 |
| 0.00G | Interdisciplinary Studies in Sexuality | 31.170 |
| 10.5/6.00 | Italian | 31.060 |
| 0.00G, Q | Journalism | 31.180 |
| 0.00 | Judaic Studies | 31.270 |
| 0.00G | Leisure Sciences | 31.010 |
| 0.00 | Linguistics | 31.060 |
| 0.00 | Lonergan Interdisciplinary Studies | 31.530 |
| 10.12/6.00 | Mathematics and Statistics (BA) | 31.200 |
| 10.10/5.00/6.00 | Mathematics and Statistics (BSc) | 31.200 |
| 10.12/6.00 | Mathematics (Actuarial - BA) | 31.200 |
| 10.10/5.00/6.00 | Mathematics (Actuarial - BSc) | 31.200 |
| 10.12/6.00G | Mathematics (Actuarial Mathematics/Finance - BA) | 31.200 |
| 10.10/5.00/6.00G | Mathematics (Actuarial Mathematics/Finance - BSc) | 31.200 |
| 10.12/6.00 | Mathematics (Pure and Applied - BA) | 31.200 |
| 10.10/5.00/6.00 | Mathematics (Pure and Applied - BSc) | 31.200 |
| 0.00G | Pastoral Ministry (Cert. only) | 31.330 |
| 0.00 | Philosophy | 31.220 |
| 10.10/5.00/6.00 | Physics | 31.230 |
| 10.10/5.00/6.00 | Physics/Marketing | 31.230 |
| 0.00 | Political Science | 31.240 |
| 0.00 | Professional Writing | 31.100 |
| 10.1/4.03/6.00 | Psychology (BA) | 31.250 |
| or 3.14/4.10 |  |  |
| 5.00/6.00/10.1/10.9 | Psychology (BSc) | 31.250 |
| 5.00/6.00/10.1/10.9 | Psychology (Behavioural Neuroscience Option) | 31.250 |
| 0.00 | Religion (see also Judaic Studies) | 31.270 |
| 0.00 | Sociology | 31.310 |
| 0.00 | Southern Asia Studies | 31.170 |
| 10.5/6.00 | Spanish | 31.060 |
| 10.12/6.00 | Statistics (BA) | 31.200 |
| 10.10/5.00/6.00 | Statistics (BSc) | 31.200 |
| 10.13 | Teaching of English as a Second Language |  |
| A,G,P,Q,+ |  | 31.090 .1 |
| 0.72 | Teaching of English as a Second Language |  |
| A,G,P,Q,+ | (Certificate) | 31.090 .1 |
| 0.00 | Theological Studies (see also Pastoral Ministry) | 31.330 |
| 3.14G | Therapeutic Recreation | 31.010 |
| 0.00 | Urban Studies | 31.130 .1 |
| 0.00A | Western Society and Culture | 31.520 |
| 0.00 | Women's Studies | 31.560 |

## Mature Student Entry

Concordia University has a tradition of concern for the education of Mature students; it has always sought to assist students of 21 and over to undertake undergraduate studies.
The primary aim of the Centre for Mature Students is to develop services to students returning to formal studies after an absence of many years. It is difficult to plunge suddenly into a very large
urban University after years away from classes and studying; therefore, the Fellows and staff of the Centre hope to reach out to all Mature Entry students to offer them encouragement and guidance. The Centre has quarters on both campuses that function as a "home base" for students who want counselling or are simply in need of some social contact with their peers (see §14),

## Extended Credit Program

Students admitted to BA and BEd Extended Credit Programs are required to complete an additional 30 credits for the degree and must include the following 30 credits:
30 elective credits, of which a maximum of 12 may be outside the Faculty of Arts and Science Certain departments in the Faculty have specific requirements. Students intending to follow programs of concentration within these departments must include the specified components as part of their program.

BA Leisure Sciences and Therapeutic Recreation: SOCI $212^{3}$; BIOL $200^{6 *}$ or $201^{3}$; PSYC $200^{6}$ *Students in the Therapeutic Recreation program must choose BIOL $200^{6}$.

BA Mathematics: 9 credits in Mathematics - $203^{3}, 204^{3}, 205^{3 *}$
*Students not having MATH 2023, or the equivalent, must take it in place of one of their elective courses.

BA Psychology: 3 credits in Mathematics
3 credits in Biology
6 credits in Psychology
Students admitted to the BSc Extended Credit Program are required to complete an additional 30 credits for the BSc degree and must include the following 30 credits:
6 credits in Chemistry $205^{3}, 206^{3}$
6 credits in Mathematics $203^{3}, 205^{3 x}$
12 credits in Physics $204^{3}, 205^{3}, 206^{3}, 224^{1}, 225^{1}, 226^{1}$
3 credits in Biology 201 ${ }^{3}$
3 credits in Mathematics $204^{3}$ for students intending to enter programs of concentration in Mathematics or Physics;** or electives for all other students
*Students not having MATH $201^{3}$, or the equivalent, must take it in place of one of their elective courses.
**Students not having MATH $202^{3}$, or the equivalent, must take it in place of one of their elective courses.

NOTE: Students in the BA, BEd or BSc Extended Credit Program may not count towards their programs of concentration courses taken as part of the first 30 credits.

### 31.003 DEGREE REQUIREMENTS

In accordance with the recommendations of the Council of Universities of Québec, the credit base takes into account the total activity of the student. A student preparing for the BA, BEd, or BSc degree takes a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours spread across lectures, conferences, tutorials, laboratories, studio or practice periods, tests, examinations, and personal work.

Since the cégep programs are designed to give all students the opportunity to explore different fields and thus acquire a broad general basis for further study, the undergraduate programs in the Faculty of Arts and Science require some degree of concentration in specific areas. Detailed statements about these programs are made under the appropriate disciplinary headings in the sections of the Calendar that follow this general account of degree requirements. They represent four main forms of concentration: the Minor, the Major, the Specialization, and Honours; and a fifth form, the Certificate. The University's formal definitions of these kinds of programs are set out in §16.2.3; for the convenience of students in Arts and Science, those definitions as they are construed in the Faculty are briefly repeated below.

The Minor is a program consisting of a minimum of 24 specified credits in a single discipline and professing to give a basic introduction to the methodology and key concepts of that discipline. A Minor cannot in and by itself provide the concentration required of a candidate for a degree and is therefore always taken in combination with another program. In addition to the Interdisciplinary and Disciplinary Minors available in Arts and Science, students may register with approval for selected Minors in other Faculties. Available Arts and Science Interdisciplinary Minors are listed in $\$ 31.170$ Disciplinary Minors are indicated in the Calendar entry of each Department or College.

The Faculty of Arts and Science and the John Molson School of Business:
With the approval of the John Molson School of Business, Arts and Science students may take a Minor in Business Studies (see $\$ 61.140$ ).
The Faculty of Arts and Science and the Faculty of Engineering and Computer Science: With the approval of the Faculty of Engineering and Computer Science, Arts and Science students may take a Minor in Computer Science (see §71.70.5).
All Minors in the Faculty of Fine Arts are open to suitably qualified students.
The Major consists of a minimum of 36 specified credits taken in an approved sequence of courses. Normally within a major program not more than 36 credits are required from a single discipline or department. In certain programs, however, additional credits are required in cognate disciplines and departments. The Major provides a solid grounding in the academic knowledge comprehended within the field of concentration. To enter and remain in it, a student normally does not have to meet a special performance requirement; see, however, Western Society and Culture §31.520. Students with appropriate admission requirements, normally after completion of 24 credits, may request permission to be admitted to a second program of concentration in the Faculty, normally a Major. Exceptionally, students may complete a second Major in the Faculty of Fine Arts with permission of both Faculties. Students may apply to add a major program normally offered as part of a BA degree to a BSc degree or BEd degree or vice-versa. Attainment of acceptable GPA and satisfactory academic standing are required. The Faculty of Arts and Science will consider favourably such requests subject to admission quotas and the student having the appropriate prerequisite and admission profile (see $\S 31.002$ ). The student record and official transcript indicate all programs of concentration. Specific courses can only be used to fulfil the requirements of one program.
Students completing the requirements of a BA, BEd, BSc, and/or BFA will elect one degree for graduation.

The Specialization consists of a minimum of 60 specified credits, normally not more than 54 credits of which are mandated from a single discipline or department. A Specialization provides a comprehensive education in the field of concentration, but to enter and remain in it, a student normally does not have to meet a special performance requirement unless otherwise indicated in the program. Students interested in subsequent "classification" by the provincial government may be advised to follow a Specialization or an Honours program. Second programs of concentration (Minor or Major) may be combined with a Specialization program according to regulations described above for those programs.
The Honours program consists of a minimum of 60 specified credits taken in an approved sequence of courses. Normally within an Honours program not more than 60 credits are mandated from a single discipline or department in the Arts and 72 credits in the Sciences. Additional credits may be required in cognate disciplines and departments. Superior academic performance is required for admission to and continuation in the Honours program, the precise level of such performance being determined by Senate. See §16.2.3 and Faculty Honours Regulations set out below for matters governing Honours programs at Concordia. An Honours degree or equivalent, because it testifies to a student's comprehensive education in a particular field, intellectual commitment to that field, and achievement of a high level of academic performance, has traditionally been required of entrants to postgraduate programs.

## Graduation Requirements

1. A candidate for graduation must have successfully completed a program of concentration in the form of an Honours, Specialization, or Major program.
2. A candidate for graduation must have successfully completed at least 24 credits outside the single discipline or department from which the degree concentration has been chosen. Within every block of 30 credits taken towards the degree, a student will normally choose no more than 24 credits from any one discipline or department.
3. A candidate for graduation must have successfully completed at least 18 credits from courses in Arts and Science in every block of 30 credits taken towards the degree.
4. A candidate for the BA degree must have qualified for admission to, and successfully completed, a program leading to that degree. Specific admission requirements, expressed as cégep pre-Arts profiles, are given in $\S 31.002$. Students wishing to transfer out of one degree program into another must satisfy the admission requirements of the program they seek to enter.
5. Students enrolled in a regular degree program or an Extended Credit degree Program in the Faculty of Arts and Science may take ESL courses for degree credit, up to a maximum of six credits.
6. A candidate for the BSc degree must have qualified for admission to, and successfully completed, a program leading to that degree. Specific admission requirements, expressed as cégep preScience profiles, are given in $\S 31.002$. Students wishing to transfer out of one degree program into another must satisfy the admission requirements of the program they seek to enter.
7. A candidate for the BEd degree must have qualified for admission to, and successfully completed, the program leading to that degree. The admission and degree requirements are set out in §31.090.1.
8. In general, the credits obtained for any course may not be used to satisfy the requirements of more than one program. Students first registered in certain Certificate programs may however apply credits obtained towards the Certificate to a degree program.
9. Those students entering the University after September 1, 1978 as Independent students will be permitted to apply no more than 30 credits obtained as an Independent student towards any Arts and Science Faculty degree program.
10. Those students entering the Faculty of Arts and Science as degree students beginning in the academic year 2002-03 must fulfil the general education requirement outlined in §31.004.

Supplemental Examinations (Arts and Science)
Supplemental examinations shall be offered only when, as a condition for passing the course, it is required that a student pass the final examination regardless of its weighting; or where the final examination contributes $50 \%$ or more of the final grade.
A student failing a course which comprises entirely, or in part, a laboratory or similar practicum, may not be eligible to write a supplemental examination.
All courses which a student fails and for which there is no supplemental examination shall be graded "FNS" or "R".
A failed student (see §16.3.10 V ) may not write supplemental examinations.

## Honours Programs

The Faculty of Arts and Science has programs leading to an Honours degree in certain selected fields. To enter an Honours program, students apply to the Departmental Honours Committee (adviser). The Departmental Honours Committee (adviser) will accept students into Honours, subject to review by the Faculty Honours Committee. The Departmental Honours Committee (adviser) will not normally accept students until they have obtained 30 credits at this University; students requiring fewer than 30 credits to graduate will not normally be accepted. The Department will notify the Faculty Honours Committee of the acceptance. The Faculty Honours Committee will review the departmental acceptance and notify the Department, the student, and the Office of the Registrar of the acceptance. In those cases where the Faculty Committee reverses a department's acceptance of a student into Honours, the Department may appeal the Faculty Committee's ruling to the Arts and Science Faculty Council. NOTE: For Joint Honours Programs, please refer to $\$ 31.170$ for Interdisciplinary Studies.

## Honours Regulations (Faculty Regulations) see also §16.2.3

In order to qualify for an Honours degree, a student must comply with the regulations set forth below.

1. An Honours student must meet the general degree requirements, as well as the specific requirements for an Honours degree. A student must complete a minimum of 30 credits in the courses from the Honours component of the program at this University to receive a degree with Honours. In certain cases, these 30 credits may include some specific courses for which pro-tanto credit may not be awarded.
2. To be admitted into an Honours program, a student must have a minimum cumulative GPA of 3.00 ("B"). A student must maintain a minimum cumulative GPA of 3.00 as well as a minimum annual GPA of 3.00 within the Honours program. The minimum acceptable grade in any course is a " C ". Averages are calculated on Concordia courses only.
3. Students who are required to withdraw from the Honours program may proceed in the corresponding Specialization or Major program. Reinstatement in the Honours program is possible only by appeal to the Faculty Honours Committee.
4. A student is allowed to qualify for only one Honours degree in either a single or combined Honours program. A student may qualify for a Minor or Major program in addition to an Honours program. In general, the credits obtained for a particular course may be used to satisfy the requirements of only one program.
Students may appeal their Department's determination of their status or interpretation of requirements in the Honours program. Such appeals should be addressed to the Chair of the Faculty Honours Committee. The Faculty of Arts and Science has an Honours Committee made up as follows: three faculty members; one student member; two Student Affairs advisers (non-voting); one representative of the Office of the Registrar (non-voting); the Vice-Dean, Student Affairs who acts as Chair.
The Faculty Honours Committee receives and reviews departmental recommendations for acceptance into Honours programs and graduation with Honours, and adjudicates disputes between students and departments concerning Honours programs. Since the Faculty Honours Committee cannot hear appeals contesting its own judgements, students and departments who wish to appeal a decision of the Faculty Honours Committee should address this appeal to the Dean of the Faculty.

## General Certificate in Arts and Science

The General Certificate in Arts and Science is intended primarily for part-time students who qualify for admission to undergraduate degree programs, but who, at the time of registration, have not yet determined which program would best serve their interests. In particular, it is designed to meet the needs of Mature students who are unwilling or unable to make the long-term commitment involved in a regular or extended degree program. Students who have completed a university degree do not normally qualify for admission into the General Certificate in Arts and Science.
The Certificate requires successful completion of 30 credits. At least 24 of these credits must be chosen from courses offered by not more than three departments in the Faculty of Arts and Science. Credits earned in the Certificate may not be counted towards the additional credits required in extended programs.
Students may transfer into the Certificate program up to twelve credits earned in an incomplete degree or Certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.
The General Certificate program in Arts and Science was first offered in the session commencing September 1978. Students who are admitted to the General Certificate in Arts and Science, and who wish to continue in a degree program should apply for admission to their program within the first 30 credits.
31.003 .1

Academic
Performance
Regulations

## Objectives

The objectives of these regulations are to ensure that the Faculty can certify that all of its graduates have achieved an acceptable level of scholarship.

## Annual Weighted Grade Point Average (WGPA)* Requirements and Consequences *See §16.3.10 for definition of Annual WGPA.

Acceptable standing requires that a student obtain an Annual WGPA of at least 2.00 .
NOTE: Although a "C-" grade ( 1.70 grade points) is designated as satisfactory in §16.3.3, a WGPA of 2.00 is required for acceptable standing.
Students in acceptable standing may continue their programs of study, following the advice of their academic departments.

Conditional standing results when a student obtains an Annual WGPA of less than 2.00 , but at least 1.50. A student is not permitted to obtain two consecutive conditional standing assessments. Students in conditional standing may not write supplemental examinations.
Students in conditional standing will not be permitted to register for further study until their program has been approved by the appropriate adviser in their department.
They must obtain acceptable standing at the time of their next assessment.
Failed standing results when a student obtains an Annual WGPA of less than 1.50, or conditional standing in two consecutive periods of assessment.
Failed students may not write Supplemental examinations.
Failed students are required to withdraw from their program. Students who are in failed standing for a second time will be dismissed from the University. In subsequent years, should they wish to return to University studies, they must contact the Office of the Registrar for information concerning conditions and procedures for seeking readmission. Decisions of the relevant authority in the Faculty to which application is made are final.
Failed students who are not dismissed may apply for readmission through the Dean's Office of the Faculty to which they wish to be readmitted. If readmitted, they will be placed on academic probation. They must return to acceptable standing at the time of their next assessment. Other conditions will be determined at the time of readmission.

## Graduation Requirements

Students must satisfy all course requirements and be in acceptable standing.
The standings of potential graduates who have attempted less than 12 credits since their last assessment are determined on the basis that these credits constitute an extension of the last assessment period.
Potential graduates who fail to meet the requirements of acceptable standing, but meet the requirements of conditional standing, will have the following options:
a) register for an additional 12 credits and, at the next assessment, meet the requirements for acceptable standing;
or
b) register for fewer than 12 additional credits.

In this case, standing will be determined on the basis that these extra credits constitute an extension of the last assessment period.
For both option a) and option b), the additional courses taken must be approved by the appropriate member of the Dean's Office, in consultation with the student's department where necessary.

| Dean's Office | Dean's Office <br> Dean's Office is to be understood as being the appropriate member of the Dean's Office, normally <br> the Vice-Dean, Student Affairs, or delegate. |
| :--- | :--- |
| 31.003.2 | Lapsed Program <br> Registration <br> Regulations |
| Students enrolled in an Honours, Specialization, or Major program in the Faculty of Arts and Science <br> who have not registered for a course for nine consecutive terms or more will have a lapsed notation <br> entered on their student record. Lapsed students must meet with the appropriate adviser in order to <br> continue in their program and to be made aware of possible program modifications. |  |

### 31.004 GENERAL EDUCATION

| Coordinator | JAMES G. PFAUS, Psychology |
| :--- | :--- |
| WILLIAM P. BYERS, Lonergan College | HARVEY SHULMAN, Liberal Arts College |
| Committee | MARTIN SINGER, ex officio, Dean |
| ROBERT D. KILGOUR, Exercise Science | PATRICIA A. THORNTON, Geography |
| WILLIAM KNITTER, Education | REETA C. TREMBLAY, Political Science |
| JOANNE LOCKE, ex officio, Vice-Dean, |  |
| Curriculum and Appraisals |  |


| Location | Loyola Campus <br> Lonergan University College <br> 7302 Sherbrooke Street West <br> (514) 848-2280 <br> E-mail: gened@alcor.concordia.ca |
| :--- | :--- |
| Program | An education for life requires the ability to read, write, speak, reason, compute, and listen effectively. <br> This is true for all students, whether they are in the social sciences, humanities, natural sciences, or <br> any other faculty in the University. The General Education program consists of a series of designated <br> groups of courses that are crafted to provide a breadth of knowledge that will complement the depth <br> of students' disciplinary studies in their major programs. These courses are designed to enrich the <br> general education of all Arts and Science students, to broaden their university experience, and to <br> provide fundamental skills necessary for university success and career fulfilment. |

All students in the Faculty of Arts and Science are required to satisfy the General Education requirement. For students enrolled in a single Major, this program consists of four approved General Education courses (12 credits). For students enrolled in an Honours, Specialization, Major and Minor, or two Majors, this program consists of two approved General Education courses (six credits).

## Concentration

Single Major
Honours, Specialization, Major/Minor, or Double Major
General Education requirements must be satisfied using approved General Education courses. (Courses taken under a non-General Education number may count for elective credit, but will not count towards the fulfilment of the General Education requirement.) Students may not fulfil the General Education requirement with courses taken from their academic department. For example, a student who is majoring in History may not take an HISZ General Education course to satisfy the General Education requirement. However, students who are members of the Liberal Arts College and complete a disciplinary Minor, Major, Specialization, or Honours may count LBCL 291 and 292 toward their General Education requirement. Students who are members of the Liberal Arts College but do not complete a disciplinary Minor, Major, Specialization, or Honours may also count LBCL 291 and 292 toward their General Education requirement on the condition that they successfully complete 12 credits of study within a discipline-based academic unit. These discipline-based credits are to be chosen in consultation with the Liberal Arts College academic adviser. Students who have completed the Science College curriculum are permitted to count SCOL 270 toward their General Education requirement.

Students enrolled in an undergraduate Certificate program are exempt from the General Education requirement as are students pursuing a second or subsequent undergraduate degree.
All General Education courses in Arts and Science will be listed in the Undergraduate Class
Schedule by discipline and number, e.g. MASZ 217 (the "Z" indicates General Education course).
All currently approved General Education courses in the Faculty of Arts and Science are listed below.
The General Education requirement may be satisfied in one of three ways:

## 1. Core Curricula

A Core Curriculum consists of four specially designed interdisciplinary or multidisciplinary courses tied together by a common theme. Students have to complete all four courses to satisfy the General Education requirement.
2. Clusters (specific to General Education)

A Cluster is a thematically coherent list of courses presented in a set of five to seven courses connected by a common theme. To satisfy the General Education requirement, students have to take four courses from a single cluster. These courses must be from at least three different departments. Clusters will normally culminate in an integrative seminar.

## 3. Specified List of Courses

Students are required to take four courses (or two courses in the case of Honours, Specialization, Major and Minor, or two Majors) from the courses listed below. These courses are divided into the areas of Humanities, Social Science, and Science. Students are required to take at least one course from each list. Students whose General Education requirement consists of six credits must take two courses (one course from each list) from outside of the list in which their major program lies.

| Concentration |  |  |  |
| :--- | :--- | :--- | :--- |
|  | General Education Requirements |  |  |
| Single Major | All four courses in <br> the Core | Three courses from <br> three different <br> departments, plus <br> the integrative <br> seminar | Four courses; at <br> least one course <br> from each of the <br> three area lists |
| Honours, <br> Specialization, <br> Major/Minor, or <br> Double Major |  |  | Two courses from <br> lists other than the <br> one which includes <br> the major program |

NOTE: General Education courses are designated with "Z" after the first three letters of the department designation.
Because of the cross-listings with these departments, students should see §200.1 for a list of equivalent courses.

## THE GREAT BOOKS AND THE WESTERN TRADITION (CORE)

Core This program reflects Liberal Arts College's rich Great Books-centred educational experience gained through studying enduring works fundamental to the development of intellectual curiosity, human freedom, and an informed citizenry able to effectively read, think, and write. These carefully coordinated multidisciplinary courses involve the student in the study of Western Society and Culture through the contemporary period, primarily through a study of original materials drawn from outstanding texts, but with due attention to art and music of the West.

## LBCZ 201 Great Books: Western History and Thought from Antiquity through the

 Renaissance (3 credits)Social and political theory are central, and art, music, and scientific thought are represented. Key texts include the Bible, Plato's Republic, Thucydides' Peloponnesian Wars, St. Augustine's City of God, and Machiavelli's Prince and Discourses.
NOTE: Students who have received credit for LBCL 201, 291, or 292 may not take this course for credit.
LBCZ 202 Great Books: Western Culture and Expression from Antiquity through the Renaissance (3 credits)
Literature, religion, and philosophy are central, and art and music are represented. Key texts include

Homer's Odyssey, Virgil's Aeneid, Montaigne's Essays, and Shakespeare's King Lear. NOTE: Students who have received credit for LBCL 202, 291, or 292 may not take this course for credit.

LBCZ 203 Great Books: Western History and Thought from the Reformation through Modernity (3 credits)
Prerequisite: LBCZ 201 or LBCZ 202 or permission of the College. Social and political theory are central, and art, music, and scientific thought are represented. Key texts include Calvin's Institutes, Descartes' Discourses on Method, Hobbes' Leviathan, and Mill's Essay on Liberty. NOTE: Students who have received credit for LBCL 203, 291, or 292 may not take this course for credit.

LBCZ 204 Great Books: Western Culture and Expression from the Reformation through Modernity (3 credits)
Prerequisite: LBCZ 201 or LBCZ 202 or LBCZ 203 or permission of the College. Literature, religion, and philosophy are central, and art and music are represented. Key texts include Milton's Paradise Lost, Rousseau's Confessions, Stendhal's The Red and the Black, and Nietzsche's Genealogy of Morals.
NOTE: Students who have received credit for LBCL 204, 291, or 292 may not take this course for credit.

## Clusters

NOTE: All cluster courses for which descriptions have not been provided in the Cluster Section have their descriptions listed in the Individual Courses Section.

1. DISCOVERING SCIENCE

BIOZ 208 Environmental Biology
or
BIOZ 210 Genetics and Human Welfare
CHEZ 208 Chemistry in Our Lives
or
CHEZ 209 Discovering Biotechnology
EXCZ 298A The Body Human: Form and Function
GELZ 298A Assembling Spaceship Earth
MASZ 217 Introduction to Mathematical Thinking
or
MATZ 215 Great Ideas in Mathematics
PHYZ 298A From Particles to Galaxies
Students must take three courses from the above groupings, plus the integrative seminar GNED 300. GNED 300 must be taken as the final course in the Discovering Science cluster.

GNED 300 Integrative Seminar for Discovering Science Cluster (3 credits)
This course provides a context for the knowledge of science that students have gained by taking three courses in the Discovering Science cluster. It examines the role of science and technology in the modern world through a consideration of particular scientific topics such as cloning, the genome project, technology and the environment. Topics may vary from year to year.

## 2. GLOBALIZATION

ANTZ 380 Contemporary Issues in Human Rights
or
POLZ 388 Human Rights and International Justice
GEOZ 204 Global Environmental Issues
HISZ 283 The Twentieth Century: A Global History
or
POLZ 213 Contemporary Issues in Global Politics
POLZ 305 International Political Economy
or
POLZ 394 Globalization and Sustainable Development
SOCZ 385 Globalization and Transnationality
Students must take three courses from the above groupings, plus the integrative seminar GNED 310. GNED 310 must be taken as the final course in the Globalization cluster.

ANTZ $380 \quad$ Contemporary Issues in Human Rights (3 credits)
The course develops, through case analysis, insight into the differing priorities and competing concepts of human rights and human dignity in "non-Western" cultural traditions as well as in
"Western" societies. It explores the significance of religious and other ideological positions in the use and abuse of human rights by governments, extragovernments, international bodies, as well as the general public. The course also examines topics such as women's human rights, sexuality and human rights, and human rights in development, the limits of sovereignty, and state accountability. NOTE: Students who have received credit for ANTH 380 may not take this course for credit.

## POLZ 305 International Political Economy (3 credits)

This course examines the processes and issues in the politics of international economic relations. Topics covered include the role of multinational corporations, the rise of trading blocs, and the international division of labour.
NOTE: Students who have received credit for POLI 305 may not take this course for credit.
POLZ $388 \quad$ Human Rights and International Justice (3 credits)
This course surveys normative questions comprising human rights discourse, with an emphasis on international efforts to promote human rights standards. Topics include the role of the United Nations, the North-South debate, environmental security, the obligation of individuals and states, women's rights and the work of non-governmental organizations. Special consideration is given to the controversy between the universal and particular applications of human rights. NOTE: Students who have received credit for POLI 388 may not take this course for credit.

## POLZ 394 Globalization and Sustainable Development (3 credits)

This course is an introduction to the emerging field of global environmental politics. It surveys the present environmental crisis and the roles of states, international organizations, and civil society. Various case studies dealing with oceans, forests, fisheries, biodiversity, global warming, and others are used to illustrate the inherent complexity of transnational ecological issues in the era of globalization. NOTE: Students who have received credit for POLI 394 may not take this course for credit.

SOCZ 385 Globalization and Transnationality (3 credits)
Globalization has been used generally to denote the increasingly rapid and far-flung circulation of people, money, commodities, and images around the world. This course introduces students to a sample of issues covered by anthropologists and sociologists in respect to this process, while at the same time also exploring transnational social networks that cross state borders but are not necessarily global in scope.
NOTE: Students who have received credit for SOCI 385 may not take this course for credit.
GNED 310 Integrative Seminar for Globalization Cluster (3 credits)
This course integrates different themes covered in the Globalization cluster and provides an interdisciplinary approach to the concepts that students have studied in their previous nine credits of the cluster. It focuses on globalization and its impact on state-societal relations, arts, culture, and the environment. Topics may vary from year to year.

## 3. ETHICS

PHIZ 233 Applied Ethics: Moral Sensitivity and Human Well-Being
PHIZ 232 Introduction to Ethics
or
PHIZ 235 Biomedical Ethics
or
PHIZ 330 Contemporary Ethical Theory
POLZ 326 Women, Ethics and the Law in Canada
or
POLZ 390 Ethics and Competing Political Perspectives
RELZ 310 Self and Other: Exploring Value Choices in Personal and Interpersonal Relations
or
RELZ 312 Justice and Social Conflict in a Globalized World
THEZ 204 Introduction to Christian Ethics
Students must take PHIZ 233, two other courses from the above groupings, plus the integrative seminar GNED 320. GNED 320 must be taken as the final course in the Ethics cluster.

## GNED 320 Integrative Seminar for Ethics Cluster (3 credits)

This course integrates the various applied and theoretical approaches to ethics covered within the Ethics cluster. It provides an interdisciplinary approach to ethical issues and focuses on the impact ethical considerations have in philosophy, religion, political science, and other disciplines. Topics vary from year to year.

Individual Courses

Course Descriptions

HUMANITIES: CLAZ, COMZ, ENGZ, FFAZ, FLIZ, GERZ, HISZ, ITAZ, JOUZ, LBCZ, LUCZ, MODZ, PHIZ, SPAZ, THEZ<br>SOCIAL SCIENCE: AHSZ, ANTZ, ECOZ, EDUZ, FFAZ, GEOZ, INSZ, LINZ, POLZ, PSYZ, RELZ, SCPZ, SOCZ, WSDZ<br>SCIENCE: BIOZ, CHEZ, EXCZ, GELZ, GEOZ, MASZ, MATZ, PHYZ, PSYZ, SCOZ

## Humanities

## CLAZ 266 An Introduction to Classical Archaeology (3 credits)

This course provides a general overview of the material remains of ancient Greece from the Bronze Age to the Hellenistic period. It addresses the function, context, dating, and meaning of artifacts, as well as methods of analysis. NOTE: Students who have received credit for CLAS 266 may not take this course for credit.

## COMZ 360 Mass Communication (3 credits)

The course examines the nature and forms of mass communication, the social sources and uses of mass communication, its psychology, audiences, and effects. The ethics of mass communication are also discussed. Through guest lecturers from the various media and readings of contemporary analyses/critiques, issues such as media ownership and access, government and self-regulation, technological implications, media accountability, etc., are raised. NOTE: Students who have received credit for COMS 360 may not take this course for credit.

## ENGZ 224 The Creative Process

 (3 credits)This course introduces students to the creative process involved in writing prose fiction, poetry, and drama, including the search for inspiration, the exploration and nurturing of the "germ" of a pattern or idea, and its development into artistic form. Course material is drawn from texts, letters, worksheets, and biographies of poets, prose writers, and playwrights, and combines lectures and discussions. While the course is not a writing workshop, students are invited to read widely, participate in discussions, and engage in some writing of poetry, fiction, or drama. The course is open to all students. NOTE: Students who have received credit for ENGL 224 may not take this course for credit.

ENGZ 298A Stories (3 credits)
Human beings use stories for many different purposes and in many different ways: to amuse, to convince, to move other people, and to make sense of the world. This course investigates various forms of storytelling and narrative in order to develop a vocabulary for talking about how and why stories are told. It approaches the idea of story in its broadest sense, and includes classical and contemporary literature as well as popular and non-literary modes of storytelling, with texts ranging from Greek tragedy to the novel and advertising. The course examines models of interpretation and analysis useful for
thinking and writing critical essays about these narrative forms.
NOTE: Students who have received credit for this topic under an ENGL 298 number may not take this course for credit.

## FFAZ 398G Introduction to Studio Arts (3 credits)

An introduction, for non-Fine Arts students, to such artistic practices as drawing, painting, and non-traditional approaches to the visual arts. The course is taught in a unique setting that integrates both studio work and theory, under the guidance of two practising artists. Each week consists of two classes: a background lecture with visual presentation, and a threehour hands-on studio workshop.
NOTE: Students who have received credit for this topic under an FFAR 398 number may not take this course for credit.

## FFAZ 398H The Visual and Performing Arts, Renaissance to the Present (3 credits)

An introduction, for non-Fine Arts students, to the diversity of the visual and performing arts from the Renaissance to the present. In addition to examining the development of, and crossfertilization between, such mediums of expression as painting, architecture, music, and theatre, the course considers the fruitful and complex impact of popular culture, technology, and cross-cultural perspectives on the arts. The goal of this wideranging and eclectic approach is to establish a solid basis for the enjoyment of the arts through a sound understanding of their histories.
NOTE: Students who have received credit for ARTH 200 or for this topic under an FFAR 398 number may not take this course for credit.

## FFAZ 398K Constructing the Jazz Tradition (3 credits)

An introduction, for non-Fine Arts students, to the aesthetics, syntax, style, sociology, artists, performance traditions, and repertoire of jazz. The course is structured around readings, analytical listening, aural transcription and singing, and does not require prior knowledge of music. Examples of aspects to be studied are: African retention, the blues, swing, the integration of music of various genres and cultures, improvisation, social activism, democracy, individuality, storytelling, letting go, the primacy of voice, the performer-audience relationship, and the jazz community as an educational institution.
NOTE: Students who have received credit for

JAZZ 200 or for this topic under an FFAR 398 number may not take this course for credit.

## FLIZ 230 Introduction à la culture francophone (3 crédits)

Ce cours vise à familiariser les étudiantes et étudiants non francophones à la culture francophone et à sa diversité. Une étude sociale, historique, linguistique et culturelle permettra aux étudiantes et étudiants de s'interroger sur ce qu'est la francophonie et sur la spécificité francophone.
N.B. Les étudiantes et étudiants doivent être bilingues, mais ils peuvent remettre leurs travaux en anglais lorsqu'ils sont excrits en General Education.
N.B. : Les étudiantes et étudiants qui ont suivi FLIT 230 ou FRAN 270 ne peuvent obtenir de crédits pour ce cours.

## FLIZ 240 Introduction à la littérature francophone (3 crédits)

Ce cours vise à familiariser les étudiantes et étudiants non francophones à la littérature d'expression française. On lira dans ce cours des œuvres représentatives de la diversité du monde francophone.
N.B. Les étudiantes et étudiants doivent être bilingues, mais ils peuvent remettre leurs travaux en anglais lorsqu'ils sont excrits en General Education.
N.B. : Les étudiantes et étudiants qui ont suivi FLIT 240 ou FRAN 271 ne peuvent obtenir de crédits pour ce cours.

## FLIZ 298A Québec Literature and Culture (3 crédits)

This course introduces students who are nonspeakers of French to francophone Québec literature and culture since 1945. Attention is paid to a number of contemporary writers as well as to other aspects of the Québec cultural scene, including music, film, painting, and other arts. Reading is in English translation. NOTE: Students who have received credit for this topic under an FLIT 298 number may not take this course for credit.

## HISZ 201 Introduction to European

 History to 1789 (3 credits)A survey of the history of Europe to the French Revolution, with emphasis on the development of ideas and political institutions.
NOTE: Students who have received credit for HIST 201 may not take this course for credit.

HISZ 202 Introduction to European History, from 1789 to the Present (3 credits)
A survey of the history of Europe from the French Revolution to the present, with emphasis on the development of ideas and political institutions. NOTE: Students who have received credit for HIST 202 may not take this course for credit.

## HISZ 205 History of Canada, Post-Confederation (3 credits) <br> A survey of Canadian history from Confedera-

tion to the present, emphasizing readings and discussions on selected problems.
NOTE: Students who have received credit for HIST 205 may not take this course for credit.

## HISZ 206 Introduction to the

 Non-Western World I (3 credits)By giving an account of the worlds of Asia, Africa and the Americas between c. 1400 and C. 1900 we seek to show the interplay between local and international historical developments in the making of the global economy. In this course, we study both the largely autonomous developments of such centres of civilization as China and the Ottoman Empire, and the effects on the non-Western world of European expansion. The course ends with a discussion of the Age of Empire.
NOTE: Students who have received credit for HIST 206 may not take this course for credit.

HISZ 281 Film in History (3 credits)
This course examines how selected commercial films and documentaries interpret historical events or provide insights into the politics, society, and culture of the times in which they were produced. The course is designed to help develop critical skills for the understanding of film in an historical framework.
NOTE: Students who have received credit for HIST 281, or for this topic under an HIST 298 or HISZ 298 number may not take this course for credit.

## HISZ 283 The Twentieth Century:

A Global History (3 credits)
This course introduces students to the history of some of the forces and institutions which have shaped the history of the world in the twentieth century, which has been characterized by widespread warfare, genocides, and massive violations against human rights and the natural environment. It has also been a time of unprecedented prosperity for some groups and parts of the globe, as well as an era of tremendous scientific advances.
NOTE: Students who have received credit for HIST 283 or LOYC 210, or for this topic under an HIST 298 or HISZ 298 number may not take this course for credit.

## LUCZ 298A Approaches to War and Peace (3 credits)

This course explores the influences of values, cultures, and ideologies on processes of war and peace, examining such questions as: Why are war and resistance to war such an enduring part of human history? What human values determine the processes of war and peace? How do ideologies develop, and how do they affect the processes of war and peace? What methods have peace movements developed, and how effective have they been?
NOTE: Students who have received credit for this topic under an LUCC 298 number may not take this course for credit.

## MODZ 298A Literature in Translation:

 German, Italian, Hispanic (3 credits)This course examines representative literary works of some of the cultures of Western civilization, within their cultural and historical contexts. One geographical area will be offered per year: Germany and other German-speaking cultures, Italy and Italian Canadians, Peninsular Spain, and Spanish America.
NOTE: Students who have received credit for this topic under an MODL 298 number may not take this course for credit.

PHIZ 201 Problems of Philosophy (3 credits)
In this course, students are introduced to philosophical reasoning through the study of important philosophical problems. These include the nature of knowledge and its acquisition; the nature of reality; the self and one's knowledge of it; the question of the existence of God and the related problem of evil; the question of the foundation of values and the possible relativity of ethics; freedom, determinism, and ethical responsibility; the idea of the good life and how it relates to the fundamental question of the meaning of life.
NOTE: Students who have received credit for PHIL 201 may not take this course for credit.

## PHIZ 232 Introduction to Ethics (3 credits)

Philosophical discussions of ethics have both practical significance (What should one do?) and theoretical interest (What does it mean to say "That's the right thing to do?"). In this course, students are introduced to some representative approaches to ethical thought and action. General questions about the nature of ethical reasoning are also considered. For example: Are there objective ethical truths or are ethical judgements merely relative to social norms? An effort is made to incorporate those ethical issues which are of specific importance to contemporary society.
NOTE: Students who have received credit for PHIL 232 may not take this course for credit.

## PHIZ 233 Applied Ethics: Moral Sensitivity and Human Well-Being (3 credits)

This course focuses on ethical theory and its application to contemporary issues. The course covers central ethical theories such as virtue ethics (Aristotle), deontology (Kant), and utilitarianism (Mill). It applies these theories to contemporary moral issues such as abortion, consumerism, the use of drugs in the pursuit of happiness, and the rationing of health-care resources.
NOTE: Students who have received credit for PHIL 233 or for this topic under a PHIL 298 or PHIZ 298 number may not take this course for credit.

PHIZ 235 Biomedical Ethics (3 credits) Bioethics is an interdisciplinary subject that overlaps areas of medicine, law, and philosophical ethics. This course is primarily concerned with contemporary biomedical debates, many of which are of current social and political significance: euthanasia and physician-assisted suicide, patients' rights, animal experimentation, organ donation and transplantation, palliative care, abortion, genetic engineering, and new reproductive technologies.
NOTE: Students who have received credit for PHIL 235 may not take this course for credit.

## PHIZ 275 From Modern to Postmodern: Philosophical Thought and Cultural Critique (3 credits)

This course focuses on key developments in modern and postmodern philosophy and their cultural influences. The course provides an introduction to philosophers (such as Kant, Nietzsche, and Foucault) and philosophical movements (such as empiricism, existentialism, and post-structuralism) of the modern era. It also introduces students to the tremendous influence that philosophical theory has had on the arts, on social and political movements, and on virtually every field of study in the humanities and social sciences.
NOTE: Students who have received credit for this topic under a PHIL 298 or PHIZ 298 number may not take this course for credit.

## PHIZ 330 Contemporary Ethical Theory

 (3 credits)Prerequisite: One introductory course in ethics (PHIL 232, 233, 234, 235; PHIZ 232, 235) or permission of the Department. This course provides an in-depth examination of the foundations of contemporary ethical theories such as deontology, utilitarianism, virtue theory, feminist ethics, and narrative ethics.
NOTE: Students who have received credit for PHIL 330 may not take this course for credit.

## THEZ 202 Introduction to Biblical Studies

 (3 credits)This course provides a survey of the contents of the Bible, from Genesis to Revelation, and a practical introduction to the skills required to understand biblical texts. Attention is paid to diverse approaches to interpretation which are used in historical, literary, or theological study of the Bible, and also to appropriate strategies for the use of biblical texts in liturgy, homilies, and personal prayer.
NOTE: Students who have received credit for THEO 201 or 222 may not take this course for credit.

## THEZ 204 Introduction to Christian Ethics (3 credits)

This course is an introduction to the field of ethics in the context of Christian faith. Christian ethics is presented as an active quest towards understanding and guiding Christian moral living.

There is a brief presentation of the historical background to Christian ethics, an exploration of the points of convergence with other religious traditions, as well as the interrelationship between morality and freedom. The course will include a reflection on the problem of evil as a diminishment of persons and societies as well as a section on moral development and moral maturity.
NOTE: Students who have received credit for THEO 204 or 350 may not take this course for credit.

## THEZ 298A Philosophical Foundations of Theology (3 credits)

This course is a survey of central concepts and ideas for the study of theology. Various periods and schools of thought in the theology-philosophy interface are examined, beginning with ancient Greek thought and its merger with biblical "ideas", and later exploring the effects of the modern scientific revolution on this interface. The main objectives of this course are to assist students in identifying major currents of thought in theology and the influence of philosophy on those currents. NOTE: Students who have received credit for this topic under a THEO 298 number may not take this course for credit.

## Social Science

## ANTZ 202 Introduction to Culture

(3 credits)
An introduction to the anthropological study of culture. The course begins with a consideration of the concepts, models, and methods used by anthropologists. This is followed by an examination of the many ways in which peoples of the world, past and present, have organized the activities, institutions, and belief systems that sustain social life. The course concludes with a discussion of the relevance of cultural anthropology to contemporary issues.
NOTE: Students who have received credit for ANTH 202 may not take this course for credit.

## EDUZ 230 Introduction to Philosophy of Education (3 credits)

This course introduces students to the content and form of several major educational theories, and to conceptual and logical procedures of philosophizing about education, with particular reference to teaching and learning.
NOTE: Students who have received credit for EDUC 230 may not take this course for credit.

## FFAZ 398J Art, Science, and Technology from Leonardo da Vinci to Virtual Reality (3 credits)

An introduction, for non-Fine Arts students, to the rich historical and contemporary relationships between art, science, and technology. Topics range from the scientific and engineering drawings of Leonardo, to the influence of scientists such as Isaac Newton on the use of colour in art, the impact of the scientific and industrial revolutions on nineteenth- and twentieth-century aesthetic concerns, Internetand computer-based art, and the ways today's
"new media" artworks deal with controversial issues such as the creation of virtual creatures. This course does not require prior knowledge of the visual arts, science, or technology.
NOTE: Students who have received credit for ARTH 353 or for this topic under an FFAR 398 number may not take this course for credit.

## GEOZ 203 Canadian Environmental

 Issues (3 credits)The aim of this course is to develop students' understanding of some of the diverse environmental issues and problems encountered in Canada today. The course takes an interdisciplinary case-study approach integrating ecological, social, political, and ethical perspectives, while also providing a general introduction to current environmental and resource issues in Canada.
NOTE: Students who have received credit for GEOG 203 may not take this course for credit.

## GEOZ 204 Global Environmental Issues

 (3 credits)This course provides an introductory-level examination of diverse global environmental issues. An interdisciplinary approach encompassing ecological, social, economic, political, and ethical perspectives is employed to explore each issue in terms of its current status, causes, consequences, stakeholders, and resolution. Case studies are introduced to investigate local-scale manifestations of these global-scale issues.
NOTE: Students who have received credit for GEOG 204 may not take this course for credit.

## GEOZ 210 Geography of Global Change

 (3 credits)This course examines global change within the framework of globalization. It focuses mainly on the economic and cultural dimensions of globalization, and also considers some political aspects and broad environmental issues. Globalization is approached as a process associated with the dynamics of a capitalist world-economy, and therefore topics such as economic restructuring, transnational corporations, supranational economic integration, and the relationship between developed and developing countries are given significant attention. The presumed association between the globalization of capital and creation of a "global" world culture is also explored. NOTE: Students who have received credit for GEOG 210 or 300 may not take this course for credit.

## GEOZ 220 The Human Environment: Place, Space, and Identity (3 credits)

This course introduces the concepts of "place", "space", and "identity". These concepts were developed by geographers to investigate economic, social, and especially cultural factors that influence the ways we construct and understand our environments. It examines how we construct the meaning of place, the unique identity of
places, the contest over identity of place, and claims to rights over place. How these have been affected by migration and globalization are then examined within the context of an already constituted social and geographical unevenness (political, economic, environmental, and cultural). NOTE: Students who have received credit for GEOG 220 may not take this course for credit.

## INSZ 250 Introduction to Library Research Practices (3 credits)

This course is designed to introduce students to the role of information in society, identifying information needs through the information audit process, and to basic library research practices. Emphasis is placed on a systematic search strategy and the use and evaluation of information tools. Topics such as outlining, bibliographic format, and plagiarism are covered as part of the information research process. NOTE: Students who have received credit for EDUC 250, INST 250 or LIBS 250 may not take this course for credit.

## LINZ 300 Sociolinguistics (3 credits)

 A study of the beliefs, interrelationships, and values of societal groups as reflected in language. NOTE: Students who have received credit for LING 300 may not take this course for credit.
## POLZ 202 Introduction to Political Science (3 credits)

This course seeks to develop a broad basis from which to pursue further political inquiry. It offers an introductory examination of basic ideas regarding the state, power, authority, and systems of government. The course examines the diverse approaches to the specific study of political phenomena and provides a fundamental understanding of political concepts.
NOTE: Students who have received credit for POLI 202 may not take this course for credit.

## POLZ 213 Contemporary Issues in Global

 Politics (3 credits)This course introduces students to major trends and issues in world politics, such as human rights, refugees, ethnic conflict, environmental degradation, migration, and the peacekeeping role of the U.N.
NOTE: Students who have received credit for POLI 213 may not take this course for credit.

## POLZ 326 Women, Ethics and the Law in Canada (3 credits)

The course provides an analysis of applied ethics to the study of women and the law in Canada. The course identifies and examines ethical problems addressed by feminist theorists that arise in the realm of public law. Diverse approaches to the study of ethics and the efficacy of legal moral imperatives will be assessed. Ethical issues examined include human rights, family law, pornography, abortion, and reproductive technologies.
NOTE: Students who have received credit for POLI 314, 326, or 334 may not take this course for credit.

## Ethics and Competing Political

 Perspectives (3 credits)This course focuses on competing ethica perspectives in contemporary political life. A wide range of ethical issues are discussed, which may include, for example, aboriginal claims, pay equity and violence in the media, civil liberties and the Internet, gender debates, reproductive technology, bio-tech and the fate of the "body" in the $21^{\text {st }}$ century. This course seeks to clarify the origins of political thought and the consequences in political practice of clashing ethical perspectives.
NOTE: Students who have received credit for POLI 390 may not take this course for credit.

## RELZ 214 Religions of the West

 (3 credits)This course surveys the history, doctrines, institutions, and practices of religions that arose in Western Asia, including Judaism, Christianity, and Islam. The course examines contemporary forms of religious life in those parts of the world where these traditions have spread, as well as indigenous religions. The course explores the religious activities and experiences of both women and men within those various traditions. NOTE: Students who have received credit for RELI 213 or 214 may not take this course for credit.

## RELZ 215 Religions of Asia (3 credits)

This course surveys the history, doctrines, institutions, and practices of religions that have arisen in and spread throughout Asia, including Hinduism, Buddhism, and the religions of China and Japan. The course explores the religious activities and experiences of both women and men within these traditions.
NOTE: Students who have received credit for RELI 213 or 215 may not take this course for credit.

## RELZ 216 Encountering World Religions (3 credits)

This course serves as an introduction to some of the religions of today's world, and explores several contemporary contexts where people of diverse religious backgrounds come into contact with one another.
NOTE: Students who have received credit for RELI 216 may not take this course for credit.

## RELZ 310 Self and Other: Exploring Value Choices in Personal and Interpersonal Relations (3 credits)

This course considers ethical issues arising in the context of personal and interpersonal relations, families and friendships, and health and medical care. These issues are discussed in relation to traditional and contemporary moral perspectives, both religious and non-religious. Topics covered may vary from year to year, but may include discussions of conscience and career, privacy, sexual relations, harassment,
substance abuse, abortion, euthanasia, and gay and lesbian relations.
NOTE: Students who have received credit for RELI 310 or 331 may not take this course for credit.

## RELZ 312 Justice and Social Conflict in a Globalized World (3 credits)

This course considers ethical issues arising in the context of social, legal, and political relations. These issues are discussed in relation to both traditional and contemporary moral perspectives, both religious and non-religious. Topics covered typically include discussions of social and economic inequality, welfare, poverty, just punishment, business ethics, public ethics, economic development, and sustainable development.
NOTE: Students who have received credit for RELI 312 or 332 may not take this course for credit.

## SCPZ 201 Introduction to Public Policy and the Public Interest (3 credits)

This course introduces students to the theoretical, philosophical, and ethical foundations as well as the social logic of public policy formulation in modern societies. Using a multidisciplinary approach, it pays particular attention to the complex interaction between groups, individuals, and institutions in society, and brings students to consider issues related to the nature of the modern state, business-government relations, the labour movement, non-profit and community organizations, and the influence of interest groups, media and international institutions on the public policy agenda.
NOTE: Students who have received credit for SCPA 201 may not take this course for credit.

## SCPZ 215 Economics for Public Policy and Community Development (3 credits)

Based on an overview of current economic issues, this course introduces students to the fundamental analytical tools and concepts that are necessary to understand economic public policy and relevant to community development and empowerment.
NOTE: Students who have received credit for SCPA 215 may not take this course for credit.

## SOCZ 203 Introduction to Society

 (3 credits)An introduction to the sociological study of society. The course begins with a consideration of the concepts, models, and methods used by sociologists. This is followed by an examination of selected substantive areas of social life, ranging from the relations between individuals and groups to total societies.
NOTE: Students who have received credit for SOCI 203 may not take this course for credit.
WSDZ 291 Introduction to Women's Studies II (3 credits)
This course looks at the lives and conditions of
women in recent times. It explores systems of domination and women's resistance to them, and investigates how women have empowered themselves within these systems, struggling for and achieving change. Topics may include women's socialization, education, language, economic and political structures, and organizations.
NOTE: Students who have received credit for WSDB 291 may not take this course for credit.

## Science

BIOZ 207 Microorganisms and Humanity (3 credits)
This course examines the intimate relationships that exist between humans and microorganisms, including the impact of bacteria and viruses on human health, the use of fungi and bacteria in food production and biotechnology, and the roles that all microbes play in global ecosystems. Lectures only.
NOTE: Students who have received credit for BIOL 207 may not take this course for credit.

## BIOZ 208 Environmental Biology

 (3 credits)This course examines the principles and concepts of ecosystems, the interaction of organisms and their environment. Energy flow and nutrient cycling in ecosystems, population dynamics, and community organization. Lectures only. NOTE: Students who have received credit for BIOL 208 may not take this course for credit.

## BIOZ 210 Genetics and Human Welfare

 (3 credits)A course on the principles of heredity as understood by modern biology. It deals also with the application of genetic principles to organisms, including humans. The biological basis of social problems is dealt with at some length. Organic evolution and its implications for human life and welfare are considered. Lectures only.
NOTE: Students who have received credit for BIOL 206 or 210 may not take this course for credit.

## CHEZ 208 Chemistry in Our Lives (3 credits)

This course is designed as an introduction to chemistry for non-science students. It concentrates on establishing the chemical concepts and vocabulary necessary to understand the many roles chemistry plays in people's daily lives.
NOTE: Students who have received credit for CHEM 208 may not take this course for credit.

CHEZ 209 Discovering Biotechnology (3 credits)
This course is intended for non-scientists. The course begins with an exploration of the roles of genes and proteins in life processes. It then proceeds to an examination of the basic scientific principles behind manipulation of bio-
logical molecules to produce desired changes. NOTE: Students who have received credit for CHEM 209 may not take this course for credit.

## EXCZ 251 Fundamentals of Health and Physical Activity (3 credits)

This course introduces students to the scientifically proven benefits of participation in physical activity on health and well-being. The basic principles of fitness and wellness are presented. Students are made aware of guidelines and principles governing physical conditioning programs and strategies for incorporating healthy physical activity into their lives.
NOTE: Students who have received credit for EXCI 251 may not take this course for credit.

## EXCZ 298A The Body Human: Form and Function (3 credits)

This course provides insight into the manner in which common injuries and diseases impact on the anatomical structures and functional systems of the body. Also addressed are the various medical treatments and procedures available to maintain or restore the structural and functional integrity of the body. Conditions of a cardiovascular, pulmonary, neuromuscular, metabolic and oncologic nature are discussed. NOTE: Students who have received credit for this topic under an EXCl 298 number may not take this course for credit.

## GELZ 298A Assembling Spaceship Earth

 (3 credits)This course takes students on a voyage of scientific discovery aimed at showing that they live on a spaceship which is in need of responsible stewardship. The voyage begins with the cosmic origins of the materials needed to build Spaceship Earth, examines how they are assembled, demonstrates how the spaceship functions, and ends with its problematic future with Mankind at the controls. Employing a mix of astronomy, physics, chemistry, geology, and biology specially tailored for the non-science student, this course combines weekly lectures (the telling of science) with hands-on workshops (the doing of science), so that students finish with the background information to appreciate how and what science reveals about Spaceship Earth and why they believe what they believe. NOTE: Students who have received credit for this topic under a GEOL 298 number may not take this course for credit.

## MASZ 217 Introduction to Mathematical Thinking (3 credits)

This course aims to foster analytical thinking through a problem-solving approach. Topics include construction of proofs, number systems, ordinality and cardinality, role of examples and counter examples, role of generalizations and specializations; role of symbols, notations and definitions; styles of mathematical discourse. NOTE: Students who have received credit for MAST 217 may not take this course for credit.

## MATZ 215

## Great Ideas in Mathematics

 (3 credits)Mathematics is used to unravel the secrets of nature. This course introduces students to the world of mathematical ideas and mathematical thinking. Without being overly technical, that is, without requiring any formal background from the student other than high school mathematics, the course delves into some of the great ideas of mathematics. The topics discussed range from the geometric results of the Ancient Greeks to the notion of infinity to more modern developments.
NOTE: Students who have received credit for INTE 215 or MATH 215 may not take this course for credit.

## MATZ 298A The Fascinating World of Numbers (3 credits)

This course explores the beauty and utility of mathematics. Topics include the common numerical elements of music, architecture, and dance; the role of symmetry in human culture; how religion influenced the development of mathematics; the numbers needed in banking and commerce; the mathematical principles governing the stock market and insurance; and the measurement of areas, volumes, speed and acceleration.
NOTE: Students who have received credit for this topic under an MATH 298 number may not take this course for credit.

## PHYZ 298A From Particles to Galaxies

 (3 credits)Why is one here? How did the universe come into existence? The intention of this course is to display the answers that modern physics gives to these questions. Students in this course are not required to solve any problems or indeed do any numerical calculations. There are no formal exams. Instead students are required to submit short weekly reflections and critiques, and at the end of the course to develop an essay covering the basic themes of the course. NOTE: Students who have received credit for this topic under a PHYS 298 number may not take this course for credit.

## PSYZ 249 Perception and Cognition in Daily Life (3 credits)

This course introduces topics in perception and cognition with an emphasis on how humans acquire, store, and use information in real-world contexts. Topics covered include reading, perceiving objects, art and motion pictures, processing language and music, solving problems and planning actions.
NOTE: Students who have received credit for PSYC 249 or for this topic under a PSYC 298 number may not take this course for credit.

## SCOZ 298A From Neurons to Consciousness (3 credits)

Through readings and discussions, this course leads to an understanding of the basic principles
underlying the organization and functioning of the brain. The course explores the structure, functionality, and beauty of neurons, their connectivity and organization, which give rise to everything from sensations to feelings to conscious experience.
NOTE: Students who have received credit for this topic under an SCOL 298 number may not take this course for credit.

## SCOZ 298B From Molecules to Life

 (3 credits)Through readings and discussions, this course examines the properties and structure of complex organic molecules, including DNA and viruses. The appearance of primitive life-forms and the development of more complex organisms are studied. Darwinian and neo-Darwinian theories are compared. Computer simulations of the origins of life are discussed as well as topics such as the human genome and cloning. NOTE: Students who have received credit for this topic under an SCOL 298 number may not take this course for credit.

# 31.010 <br> APPLIED HUMAN SCIENCES 

\begin{tabular}{|c|c|c|c|c|}
\hline Faculty \& \begin{tabular}{l}
Chair \\
RAN \\
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Psyc \\
DOR \\
Profe \\
JAM \\
Asso \\
GHIS \\
RAY \\
BLUM \\
VARD \\
LISA
\end{tabular} \& \begin{tabular}{l}
Y B. SWEDBURG, Professor \\
sor of Applied Human Sciences and ology, and Graduate Program Director THY MARKIEWICZ \\
sor \\
F. GAVIN \\
iate Professors \\
AINE GUÉRARD \\
KASS \\
A LITNER \\
A MANN-FEDER \\
OSTIGUY
\end{tabular} \& \& \begin{tabular}{l}
ant Professors RINE CONNOLLY D W. DE GUERRE HORNSTEIN \\
r \\
RT HOPP \\
Professors \\
RD CAWLEY \\
ILYN EMERY \\
KASS \\
SEASHORE
\end{tabular} \\
\hline Location \& \multicolumn{2}{|l|}{\begin{tabular}{l}
Loyola Campus \\
7141 Sherbrooke St. W., Room: VE 227 \\
(514) 848-3330
\end{tabular}} \& \& \begin{tabular}{l}
orge Williams Campus \\
F, Room: 104 \\
48-2260
\end{tabular} \\
\hline Department Objectives \& \multicolumn{4}{|l|}{The strategic objective of the Department of Applied Human Sciences is to improve quality of life and well-being. This is accomplished through the integration of theory and practice to promote effective practitioner skill. The Department of Applied Human Sciences is an interdisciplinary and applied academic unit which generates knowledge and provides practice-based education in human relations, leisure sciences, therapeutic recreation, human systems intervention, family life education and community service. Involvement in practical contexts beyond the University provides an important link with members of the community, thereby offering a genuine environment for the exchange of knowledge and expertise.} \\
\hline \multirow[t]{3}{*}{Programs} \& \multicolumn{4}{|l|}{\begin{tabular}{l}
Students in Human Relations, Leisure Sciences, and Therapeutic Recreation are required to complete the appropriate entrance profiles. The entrance profile is 0.00 G for Human Relations; 0.00 G for Leisure Sciences; and 3.14G for Therapeutic Recreation. \\
Students are responsible for satisfying their particular degree requirements. \\
The superscript indicates credit value.
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BA Specialization in Human Relations NOTE: INTE 296 or equivalent is a prerequisite for this program. <br>
AHSC $220^{3}, 230^{3}, 232^{3}, 245^{3}, 260^{3}, 270^{3}$ AHSC $330^{6}, 370^{3}, 380^{3}, 382^{3}$ AHSC $439^{6}$ <br>
Chosen from AHSC $420^{6}, 440^{6}$ <br>
Elective credits chosen from AHSC $225^{3}$, <br>
$241^{3}, 253^{3}, 254^{3}, 256^{3}, 314^{3}, 316^{3}, 319^{3}$ <br>
$323^{3}, 333^{3}, 335^{3}, 351^{6}, 360^{3}, 371^{3}, 375^{3}$, <br>
$422^{3}, 444^{3}, 460^{6}, 470^{3}$

 \& \& 

Recreation Programming <br>
AHSC $245^{3}, 281^{3}, 310^{3}, 314^{3}, 316^{3}$, <br>
$319^{3}, 323^{3}, 333^{3}, 340^{3}, 360^{3}, 421^{3}, 422^{3}$, <br>
$444^{3}, 450^{3}, 460^{6}, 490^{3}, 491^{3}$ <br>
Recreation Administration <br>
(Chosen from at least three areas) <br>
ACCO $230^{3}, 240^{3}$; ADMI 2013 ${ }^{3}$, 202 ${ }^{3}$; <br>
ECON 2013, $203^{3}$; INTE 2903; <br>
MANA $211^{6}, 266^{3}$; MARK $201^{3}$
\end{tabular} <br>

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12 \& | BA Specialization in Leisure Sciences NOTE: INTE 296 or equivalent is a prerequisite for this program. |
| :--- |
| AHSC $220^{3}, 230^{3}, 241^{3}, 260^{3}$ |
| AHSC $350^{3}, 361^{3}, 371^{3}, 380^{3}, 382^{3}$ |
| AHSC $427^{3}, 431^{3}, 437^{6}$ |
| HIST 2153; PHIL $255^{3}$; and either PSYC $286^{3}$ or SOCI $244^{3}$ |
| Chosen from Recreation Programming or Recreation Administration | \& 60

15
21
9
9

6 \& | BA Specialization in Therapeutic Recreation |
| :--- |
| NOTE: INTE 296 or equivalent is a prerequisite for this program. |
| AHSC $220^{3}, 230^{3}, 241^{3}, 260^{3}, 281^{3}$ |
| AHSC $350^{3}, 361^{3}, 380^{3}, 381^{3}, 382^{3}$, |
| $383^{3}, 384^{3}$ |
| AHSC $427^{3}, 432^{3}, 450^{3}$ |
| AHSC $438^{9}$ |
| HIST 215 ${ }^{3}$; PHIL $255^{3}$ | <br>

\hline
\end{tabular}

42 BA Major in Human Relations
18 AHSC $220^{3}, 230^{3}, 232^{3}, 245^{3}, 260^{3}, 270^{3}$
AHSC $330^{6}$
AHSC $435^{3}$
15 Elective credits chosen in consultation with the Department, with no more than six credits at the 200 level, from
AHSC $225^{3}, 241^{3}, 253^{3}, 254^{3}, 256^{3}, 314^{3}$, $316^{3}, 319^{3}, 323^{3}, 333^{3}, 335^{3}, 351^{6}, 360^{3}$, $371^{3}, 375^{3}, 420^{6}, 422^{3}, 440^{6}, 444^{3}, 460^{6}$, $470^{3}$

30 Minor in Human Relations
12 AHSC $220^{3}, 230^{3}, 232^{3}, 260^{3}$
6 AHSC $330^{6}$
12 Elective credits chosen from
AHSC $225^{3}, 241^{3}, 245^{3}, 253^{3}, 254^{3}$,
$256^{3}, 270^{3}, 314^{3}, 316^{3}, 319^{3}, 323^{3}, 333^{3}$, $335^{3}, 351^{6}, 360^{3}, 371^{3}, 375^{3}, 422^{3}, 444^{3}$, $460^{6}, 470^{3}$

42 BA Major in Leisure Sciences
24 AHSC $220^{3}, 230^{3}, 241^{3}, 260^{3}, 350^{3}, 361^{3}$, $371^{3}, 427^{3}$
9 HIST $215^{3}$; PHIL $255^{3}$; and either
PSYC $286^{3}$ or SOCl $244^{3}$
9 Chosen from AHSC $245^{3}, 281^{3}, 310^{3}$, $314^{3}, 316^{3}, 319^{3}, 323^{3}, 333^{3}, 340^{3}, 360^{3}$, $421^{3}, 422^{3}, 444^{3}, 450^{3}, 460^{6}$

## Certificate in Community Service

The Department of Applied Human Sciences offers a 30-credit program leading to the Concordia University Certificate in Community Service. Students may transfer into the Certificate program up to 12 credits, as approved by a departmental undergraduate adviser, earned in an incomplete degree or Certificate program or as an Independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

Admission Requirements
Students are required to complete the 0.00 G entrance profile to enter the Certificate.
Mature entry students require the prerequisite: ENGL $212^{3}$.
30 Certificate in Community Service
NOTE: AHSC $230^{3}, 232^{3}$, and $270^{3}$ are prerequisites for courses included in this Certificate.
Phase I
9 AHSC $256^{3}, 260^{3}, 370^{3}$
Phase II
6 AHSC $330^{6}$
Phase III
6 Chosen from AHSC $420^{6}, 440^{6}, 460^{6}$
9 Elective credits chosen from AHSC $220^{3}, 225^{3}, 245^{3}, 314^{3}, 316^{3}, 319^{3}, 333^{3}, 335^{3}, 371^{3}$, $375^{3}, 422^{3}, 444^{3}$
NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the program, chosen in consultation with the Coordinator of Undergraduate Programs.

## Certificate in Family Life Education

The Department of Applied Human Sciences offers a 30-credit program leading to the Concordia University Certificate in Family Life Education. Students may transfer into the Certificate program up to 12 credits, as approved by a departmental undergraduate adviser, earned in an incomplete degree or Certificate program or as an Independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

Admission Requirements
Students are required to complete the 0.00 Gentrance profile to enter the Certificate.
Mature entry students require the prerequisite: ENGL $212^{3}$.
30 Certificate in Family Life Education
NOTE: AHSC $220^{3}, 230^{3}$, and $232^{3}$ are prerequisites for courses included in this
Certificate.
Phase I
12 AHSC $253^{3}, 254^{3}, 260^{3}, 355^{3}$
Phase II
6 AHSC $330^{6}$

Phase III
3 AHSC $435^{3}$
9 Elective credits chosen from AHSC $225^{3}, 245^{3}, 256^{3}, 270^{3}, 314^{3}, 316^{3}, 319^{3}, 323^{3}, 335^{3}$, $360^{3}, 444^{3}, 460^{6}$
NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the program, chosen in consultation with the Coordinator of Undergraduate Programs.

Courses
Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## AHSC 220 Life Span Growth and Development for Practitioners (3 credits)

This course provides a theoretical overview of the developmental patterns and typical challenges in each stage of human life from birth to death. Students learn about normative changes in the context of historical and cultural influences in relation to identity-related differences. The course focuses on typical age-related concerns and interventionrelated issues.

## AHSC 225 Self-Managed Learning

 (3 credits)This course fosters effectiveness in orienting and directing learning which is precipitated by new personal interests and goals and/or by changing personal circumstances. It enables students to create clear personal visions, set relevant learning goals, create and organize related activities, and assess their progress. The course provides learning process models and ways to identify personal stylistic differences which affect personal learning progress and strategies.
NOTE: Students who have received credit for APSS 415 may not take this course for credit.

## AHSC 230 Interpersonal Communication and Relationships (3 credits)

This course is designed to provide knowledge and skill in building and maintaining interpersonal relationships characterized by mutual understanding and respect. Students can expect to enhance their understanding of effective communication behaviour and to improve their abilities to attend to verbal and non-verbal communication from others, exchange constructive feedback with others, engage in effective problem-solving, address and deal constructively with conflict, and communicate across differences, such as gender and race. Conceptual perspectives feature attention to contextual influences in relationship dynamics and the role of affect in interpersonal communication. The course also examines ethical and value considerations.
NOTE: Students who have received credit for APSS 240 may not take this course for credit.

## AHSC 232 Working in Task Groups

 (3 credits)Prerequisite: AHSC 230. This course is an introduction to understanding interaction and developmental processes of small groups and skill-building for effective participation. It enables students to learn observational frameworks,
process observation, collaborative problemsolving and decision-making, and facilitative member roles. It provides opportunities to learn to draw relationships between observations and conceptualizations which highlight developmental stages, contextual and structural influences (such as minority-majority relations), and personal style differences.
NOTE: Students who have received credit for APSS 240 may not take this course for credit.

## AHSC 241 Recreation and Leisure in Contemporary Society (3 credits)

This course introduces students to the theories and relationships of play, perceptions of free and discretionary time, concepts of leisure, and the historical foundations for the discipline. The concepts are presented as integral components of today's lifestyle. In addition, the organized recreation system is examined, with an introduction to the leisure services delivery system. The students also examine the role that leisure plays in current societal issues.
NOTE: Students who have received credit for LESR 241 may not take this course for credit.

## AHSC 245 Respecting Diversity in Human

 Relations (3 credits)Prerequisite: AHSC 230 or permission of the Department. This course examines the significance of identity-related differences, such as disability, age, gender, race, ethnicity, sexual orientation, in human relationships and social settings. Students can expect to learn about the nature and effects of negative stereotyping and biases in personal perspectives, institutional practices, and cultural norms. It fosters the development of awareness and skill in communicating and relating across these differences. NOTE: Students who have received credit for APSS 399E may not take this course for credit.

AHSC 253 Sexuality in Human Relations (3 credits)
Prerequisite: AHSC 230 or permission of the Department. This course provides students with knowledge of physical and psychosocial aspects of sexuality in relationships through life and examines values, attitudes, and issues related to the development and expression of sexuality. Topics include gender, family, cultural and media influences; historically and culturally based attitudes; prevention and sexually transmitted diseases; self-perception and identity in
sexuality; and emotion and sexuality. The course aims to foster respect for persons and diversity. NOTE: Students who have received credit for APSS 353 may not take this course for credit.
AHSC 254 Family Communication (3 credits)
Prerequisite: AHSC 220. This course is a requirement for students enrolled in the Certificate in Family Life Education. This course is an examination of patterns, effective approaches, and issues in communication among persons in primary partnerships and families. It also explores topics such as diversity in forms of "family", decision-making, problem-solving, power relations, gender issues, managing differences in expectations, and the influences of cultural, social, and economic contexts.
NOTE: Students who have received credit for APSS 354 may not take this course for credit.

AHSC 256 Interviewing (3 credits)
This course reviews different forms and concepts relevant to interviewing for use in work and community settings. It examines communication influences on the interviewer and interviewee and the limitations of different interview approaches. It enables students to structure and design interviews, to build rapport, and to manage information flow.
NOTE: Students who have received credit for APSS 356 may not take this course for credit.

AHSC 260 Program Planning, Design and Evaluation (3 credits)
The course prepares students to construct effective interactive programs designed for specific client populations. Using program design principles and practices, students match learning activities to desired program outcomes, while considering participant qualities and contextual features. Emphasis is placed on assessment, design, and evaluation knowledge and skills. NOTE: Students who have received credit for LESR 261 may not take this course for credit.

## AHSC 270 Introduction to Intervention in Human Systems (3 credits)

This course is an introduction to theory of human systems change from an interventionist perspective. It overviews general strategies of human systems intervention and salient models of practice highlighting conditions under which different intervention strategies are most effective. It especially focuses on the principles of fostering participation, collaborative inquiry, process facilitation and consultation, experiential learning, and action research. The course also features attention to values and ethical issues associated with specific strategies.
NOTE: Students who have received credit for APSS 250 may not take this course for credit.

## AHSC 281 Introduction to Therapeutic Recreation (3 credits)

An examination of the fundamental concepts of therapeutic recreation. Included is the study of the
historical foundations and the basic terminology, purposes, and theories of therapeutic recreation. NOTE: Students who have received credit for LESR 281 may not take this course for credit.

## AHSC 298 Selected Topics in Applied

Human Sciences (3 credits)
Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

AHSC 310 Tourism in Canada (3 credits) This course presents an examination of the tourism industry in Canada, including concepts, research, practices, and promotion. Topics covered include destination motivation, commercial recreation, business travel, trends in tourism development, government agencies, the economics of promotion, social objectives, market segmentation, and ethical and legal considerations.
NOTE: Students who have received credit for LESR 210 or 211 may not take this course for credit.

## AHSC 314 Adolescence: Issues and Intervention (3 credits)

Prerequisite: AHSC 220. This course links knowledge of adolescent development to a more detailed examination of related adolescent patterns and issues, including peer relations and friendship, parental and family relations, identity, sexuality and gender, and socio-economic and cultural influences. Directed towards students interested in working with adolescents, the course combines theoretical and practical knowledge relating to adolescents, their parents and their concerns for the purpose of enhancing the adolescent experience.
NOTE: Students who have received credit for APSS 313 may not take this course for credit.

AHSC 316 Adulthood: Patterns and Transitions (3 credits)
Prerequisite: AHSC 220, 230 or permission of the Department. This course examines transitions and developmental change through early adulthood and middle age. Featuring a narrative and autobiographical approach, it explores the nature and significance of life transitions, choices and contextual influences in shaping the course of adult life. It includes a consideration of the values inherent in notions of maturity, optimal environments, and interventions to enhance quality of life. NOTE: Students who have received credit for APSS 463 may not take this course for credit.

## AHSC 319 Older Adulthood: Issues and Intervention (3 credits)

Prerequisite: AHSC 220. This course explores developmental change patterns and differences among people in older adulthood. Topics include retirement and pensions, concepts of health, fitness, well-being and models of health care, housing and transportation, leisure, family and social relations, ethnicity and aging, loss and
grief, death and dying. Designed for persons interested in working with older adults, the course fosters awareness of myths, stereotypes and ageism, and emphasizes an attention to community social support and interventions which are enabling.
NOTE: Students who have received credit for APSS 318 or 419 or for this topic under a LESR 398 number may not take this course for credit.

AHSC 323 Women and Leisure (3 credits) Prerequisite: 30 credits. This course explores the many aspects of modern society that impact upon women's leisure. Stereotypes, violence, sexism, and societal expectations are topics covered in this course. The historical, modern, and future views of women at leisure are discussed.
NOTE: Students who have received credit for this topic under a LESR 398 number may not take this course for credit.

## AHSC 330 Leadership in Small Groups

 ( 6 credits)Prerequisite: AHSC 230, 232; 260 previously or concurrently. This course develops facilitative approaches to leadership in small groups. Students learn effective ways to observe and to interpret the significance of group behaviour for the purpose of intervening effectively. The course highlights factors optimizing participation, patterns of communication and influence, decision-making, problem-solving, collaborative planning, conflict management, and effects of gender and other identity-related differences. It assists students to identify their leadership styles and to foster flexibility in adapting to diverse group situations. NOTE: Students who have received credit for APSS 331 may not take this course for credit.

## AHSC 333 Leisure and the Environment (3 credits)

Prerequisite: 30 credits. This course examines the state of the natural environment, and explains how leisure service providers play a crucial leadership role in fulfilling the needs of both the public and the environment.
NOTE: Students who have received credit for this topic under a LESR 398 number may not take this course for credit.

## AHSC 335 Power and Conflict Resolution in Human Systems (3 credits)

Prerequisite: Completion of 30 credits for students enrolled in a social science program or permission of the Department. This course gives students a theoretical and practical overview of the role of power and conflict in human relationships and human systems - groups, organizations, and communities. The concept of power is explored in depth since the use of power is central in both the creation and the resolution of conflict. The course focuses on the development of analytical tools that serve to identify the different elements leading to, maintaining or escalating conflicts. Particular attention is given to ethics associated with the use of power and management of conflict.

AHSC 340 Employee Recreation Services (3 credits)
Prerequisite: AHSC 241. Examination of the origins and development of recreation related to the place of employment. Critical analysis of the research literature in the areas of: workleisure relationships; cost/benefits; government intervention; program design and family involvement. NOTE: Students who have received credit for LESR 340 may not take this course for credit.

AHSC 350 Leisure Education (3 credits) Prerequisite: AHSC 241. This course offers an introduction to the field of leisure education. The history and underlying philosophy of the concept is presented. The roles of the school, community, and community-serving agencies are examined. Existing models are analysed and discussed.
NOTE: Students who have received credit for LESR 350 may not take this course for credit.

## AHSC $351 \quad$ Basic Counselling Skills and Concepts ( 6 credits)

Prerequisite: AHSC 230. This course introduces students to counselling theories and develops an understanding for theoretical and value frameworks of the helping relationship. It fosters the development of basic helping relationship skills applicable in everyday relationships in work and social settings. Skill areas include attending skills, such as attending to nonverbal behaviour, reflection of content, reflection of feeling, paraphrasing and summarizing; and influencing skills, such as interpretation and analysis. Also highlighted are ethical issues and attention to cultural differences.
NOTE: Students who have received credit for APSS 450 may not take this course for credit.

## AHSC 355 Foundations of Family Life Education (3 credits)

 Prerequisite: AHSC 230, 232, 254; 260 previously or concurrently. This course examines Family Life Education from its inception as a field of practice to its current status in North America. It highlights complex related issues and the role of the educator, including attention to personal values and ethical principles of the practitioner. Topics include distinctions between prevention education and therapeutic intervention, and an overview of the range of different family life education programs and current practices. NOTE: Students who have received credit for APSS 455 may not take this course for credit.
## AHSC 360 Play, Adult Learning and Development (3 credits)

 Prerequisite: AHSC 220 or permission of the Department. This course examines the concept of play in adult learning and development. Gender, age, ethnic and social class diversity are explored as they relate to adult play behaviour.NOTE: Students who have received credit for LESR 360 may not take this course for credit.

## AHSC 361 Leisure Services Leadership

 (3 credits)Prerequisite: AHSC 230, 241. This course offers an analysis of leadership theory and its application to leisure services. Major topics are the principles and practices of leadership, group dynamics, leadership skill development and program planning, and the unique role of the leisure leader.
NOTE: Students who have received credit for LESR 361 may not take this course for credit.

## AHSC $370 \quad$ Principles and Practices of Human Systems Intervention

 (3 credits)Prerequisite: AHSC 270. The focus of this course is on the practice of human system intervention from a pragmatic as well as a theoretical perspective. The course emphasizes collaborative strategies for effecting change in human systems within a broad range of intervention alternatives. It focuses on the interventionist's role in effective change strategy development, initiation, management, and evaluation. Students can also expect to develop intervention practice skills including issue definition and assessment, data gathering techniques, intervention planning processes, information feedback mechanisms and processes, and change evaluation methodologies. The course is taught with a special focus on personal and professional values and ethical issues related to human systems intervention.

## AHSC 371 Community Recreation Planning (3 credits)

Prerequisite: AHSC 241, 260. The course focuses on the application of recreation planning, theory, and skills. It examines methods and procedures used to assess client needs, design and deliver programs and services, and evaluate their impact. Practical experience is gained through a combination of field experience, project planning, and group work.
NOTE: Students who have received credit for LESR 371 may not take this course for credit.

## AHSC 375 Organizational Leadership: A Human Systems Approach (3 credits)

Prerequisite: AHSC 270 or permission of the Department. This course is an introduction to the practice of leadership in organizations with a human systems approach and perspective. The course examines a range of theoretical concepts current in organizational leadership practice including systems thinking, team-based leadership, and strategy formulation from a leadership perspective. It provides an opportunity for students to examine ethics, values, and abilities required in organizational leadership today.

## AHSC 380 Quantitative Research Methods for Practitioners (3 credits)

Prerequisite: INTE 296 or equivalent. This course gives an overview of a range of data collection and analysis strategies which are relevant to collaborative and participative intervention practice. It examines practical considerations for
selecting specific quantitative approaches and prepares students to formulate and administer intervention-related questionnaires, to conduct basic quantitative analyses, and to present data results to interested individuals and groups. The course also examines basic ethical requirements in conducting applied social research.
NOTE: Students who have received credit for APSS 490 may not take this course for credit.

## AHSC 381 Concepts in Therapeutic Recreation Programming

 (3 credits)Prerequisite: AHSC 241, 260, 281. This course explores current therapeutic recreation practices with emphasis on rehabilitation in community and clinical settings such as hospitals, group homes, psychiatric centres, rehabilitation clinics, and correctional centres. Leisure planning and assessment models are studied to identify the modes of recreational activity which may be used as an intervention.
NOTE: Students who have received credit for LESR 381 may not take this course for credit.

## AHSC 382 Qualitative Research Methods

 for Practitioners (3 credits) Prerequisite: AHSC 380 (recommended to be taken in the same academic year). This course gives an overview of a range of qualitative approaches to practical projects and interventions. It prepares students to design and conduct interviews (including making decisions about respondent selection) with individuals and in focus groups, as well as participant observation. It also enables students to analyse qualitative data from these sources as well as documentary sources in light of practical project purposes. The course highlights special ethical considerations in conducting qualitative forms of applied social research.NOTE: Students who have received credit for APSS 490 may not take this course for credit.

## AHSC 383 Therapeutic Recreation and

 Physical Disabilities (3 credits) Prerequisite: AHSC 220, 281. This course gives an overview of the role and impact of therapeutic recreation services for individuals with physical disabilities and limitations. It analyses the barriers to recreation participation along with the planning and designing of a safe and accessible recreational environment.NOTE: Students who have received credit for LESR 481 may not take this course for credit.

## AHSC 384 Therapeutic Recreation: Cognitive Disabilities and IIIness (3 credits)

Prerequisite: AHSC 220, 281. This course gives an overview of the role of therapeutic recreation services for individuals with cognitive disabilities and limitations or illness. It focuses on the etiology, impact, and barriers related to specific conditions. It also studies legislation trends and resources for community recreation integration and the role of transitional programs.
NOTE: Students who have received credit for LESR 481 may not take this course for credit.

## AHSC 398 Selected Topics in Applied

 Human Sciences (3 credits)AHSC 399 Selected Topics in Applied Human Sciences (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## AHSC 420 Organization Development (6 credits)

Prerequisite: AHSC 230, 232, 330; or permission of the Department. This course examines organizations as systems and models of practice for organization change. Emphasizing process consultation, it provides knowledge concerning entry and contracting; identifying organizational problems and goals for change; analysing organizational structures and dynamics relevant to intervention planning; methods of gathering, organizing, and presenting pertinent data to the organization; collaborative intervention planning; approaches to evaluating intervention outcomes; ethical considerations; and the impact of personal values and priorities.
NOTE: Students who have received credit for APSS 420 may not take this course for credit.

## AHSC 421 Political and Legal Aspects of Leisure Services (3 credits)

Prerequisite: AHSC $241 ; 60$ credits. This course provides students with a theoretical understanding of the complexity of providing leisure services in the province of Québec. The course examines the administration of leisure services in municipal, regional, provincial, and federal governments. The course examines law as it applies to aspects of recreational activities in the areas of organization, supervision, and participation. The course covers the Québec Civil Code, the Canadian Constitution, and the Québec and Canadian Charter of Rights and Freedoms as they apply to the study of leisure.
NOTE: Students who have received credit for LESR 420 or 428 or for this topic under a LESR 398 or 498 number may not take this course for credit.

AHSC 422 Youth and Leisure (3 credits) Prerequisite: AHSC 330 or 361 . This course develops an understanding of the leisure needs of youth from emotional, physical, psychological, and sociological perspectives. Major areas of discussion include leisure preferences and needs assessment, strategies for programming, dealing with youth-at-risk, and recreational opportunities for youth. Lectures and laboratory. NOTE: Students who have received credit for this topic under a LESR 399 number may not take this course for credit.

## AHSC 427 Administration of Leisure Services (3 credits)

Prerequisite: AHSC 361; AHSC 371 or 381; 60 credits. This course offers an analysis of the processes involved in planning and managing
leisure service delivery systems. Topics to be studied include principles of planning, organization, budgeting, and supervision.
NOTE: Students who have received credit for LESR 426 or 427 may not take this course for credit.

## AHSC 431 Leisure Sciences Seminar

 (3 credits)Prerequisite: AHSC 361, 371; HIST 215; PHIL 255; 60 credits. This is a third-year interdisciplinary seminar in which students can tie together all they have learned in the Leisure Studies program. Additionally, students are set on a course of study that should continue after they graduate so that they can keep up with future developments in this area. NOTE: Students who have received credit for LESR 431 may not take this course for credit.

## AHSC 432 Seminar in Therapeutic Recreation (3 credits)

Prerequisite: AHSC 361, 381, 383, 384; HIST 215; PHIL 255; 60 credits. This is a third-year interdisciplinary seminar in which students can tie together all that they have learned in the Therapeutic Recreation program. Additionally, students are set on a course of study that should continue after they graduate so that they can keep up with future developments in this area.
NOTE: Students who have received credit for LESR 432 may not take this course for credit.

AHSC 435 Fieldwork Practice (3 credits) Prerequisite: AHSC 330. This course must be taken in final year. This course provides an opportunity for students to integrate theory into practice in the design, facilitation and evaluation of small group process. Students lead one small task or learning group in a community, an organizational or an institutional setting. The fieldwork is combined with class sessions for orientation, supervision, reflection and evaluation.

## AHSC 437 Internship in Leisure Sciences

 ( 6 credits)Prerequisite: AHSC 241, 260, 361, 371. This course provides students with an opportunity to design, implement, and evaluate programs; to facilitate groups in a variety of settings; and to establish working relationships with field personnel. In consultation with their supervisors, students select a site related to their learning interests. Students learn to develop and manage their own project and to self-assess their work. The course includes fieldwork, seminars, and team meetings.
NOTE: Students who have received credit for LESR 464 or AHSC 436 may not take this course for credit.

## AHSC 438 Internship in Therapeutic Recreation (9 credits)

Prerequisite: AHSC 260, 281, 361, 381, 383, 384. This course provides students with an opportunity to design, implement, and evaluate
programs, to facilitate groups in a variety of settings, and to establish working relationships with field personnel. In consultation with their supervisors, students select a site related to their learning interests. Students learn to develop and manage their own project and to self-assess their work. The course includes fieldwork, seminars, and team meetings. NOTE: Students who have received credit for LESR 464 or AHSC 436 may not take this course for credit.

## AHSC 439 Internship in Human Relations

 ( 6 credits)Prerequisite: AHSC 230, 232, 330, 370; AHSC 420 or 440 previously or concurrently; permission of the Department. This course provides students with an opportunity to design, implement, and evaluate small group leadership in several settings, and to negotiate working relationships with site personnel. Students will be solely responsible for facilitating several task or learning groups in community, work, or educational settings. The sites will be selected according to students' learning interests and in consultation with the course instructor. The course includes supervisory team meetings and internship seminar sessions.
NOTE: Students who have received credit for AHSC 436 may not take this course for credit.

## AHSC 440 Community Development (6 credits)

Prerequisite: AHSC 230, 232, 330; or permission of the Department. This course examines basic community development models of practice, the development of the intervenor-community relationship, and approaches to analysing and defining community problems and issues. Students learn to identify community structures and inter-group dynamics relevant to intervention planning, to gather and organize data for use by communities, to develop intervention plans which foster community participation and leadership, and to evaluate intervention outcomes.
The course fosters critical awareness of ethical considerations and of issues such as respecting diverse cultural and value differences. NOTE: Students who have received credit for APSS 440 may not take this course for credit.

## AHSC 444 The Older Adult and Leisure

 (3 credits)Prerequisite: AHSC 232 or 361. This course examines the aging process in the physical, cognitive, and affective domains. It familiarizes the student with the characteristics of the aging population as related to leisure, recreation, and lifestyle. It focuses on developing and understanding the impact of lifelong leisure in the aging process. The course reviews issues related to the phenomenon of leisure in retirement and discusses the process of delivering leisure services to older individuals.
NOTE: Students who have received credit for LESR 336 may not take this course for credit.

## AHSC 450 Leisure Assessment and

 Counselling (3 credits) Prerequisite: AHSC 350; 60 credits. This course focuses on the use of assessment applied to individual leisure abilities, interests and needs, and the application of counselling theory to the field of leisure services. A variety of assessment tools are analysed/interpreted. Theories, models, and methods of leisure counselling are discussed. NOTE: Students who have received credit for LESR 450 may not take this course for credit.AHSC 460 Health Promotion (6 credits) Prerequisite: AHSC 232 or 361. This course helps students to develop intervention skills and theoretical understanding in the area of health promotion. It is of particular interest to students whose career interests involve lifestyle planning, health promotion, and stress management. Topics include health and wellness, stress and illness, psychological and physical self-appraisal processes, psychosomatic processes and disorders, understanding addictions and their management, health-promotion interventions, behavioural self-management, and issues in medical/psychological health compliance.
NOTE: Students who have received credit for APSS 460 may not take this course for credit.

## AHSC 470 Basic Human Relations

 Laboratory (3 credits)Prerequisite: Final year and permission of the Department. This is an intensive format six-day learning session through which students may expect to increase their awareness of how their behaviour affects others, increase their skill and understanding of effectively and responsibly communicating to and exchanging feedback with others, increase their understanding of leadership and authority relations, and deepen their understanding of group dynamics.

AHSC 490 Independent Study I (3 credits) Prerequisite: Permission of the Department. Students work on topics in consultation with a study supervisor. The study may include readings, field studies, and/or research. NOTE: Students who have received credit for LESR 490 may not take this course for credit.

AHSC 491 Independent Study II (3 credits)
Prerequisite: Permission of the Department. A student who has received credit for AHSC 490 may register for AHSC 491.
NOTE: Students who have received credit for LESR 491 may not take this course for credit.

## AHSC 498 Advanced Topics in Applied Human Sciences (3 credits)

AHSC 499 Advanced Topics in Applied Human Sciences (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

### 31.030

Chair
CLAIRE CUPPLES, Professor
Professors
PAUL J. ALBERT
EDWARD J. MALY
ELAINE B. NEWMAN
ROBERT M. ROY
SYLVIA M. RUBY
REGINALD K. STORMS
ADRIAN TSANG
Associate Professors
JAMES GRANT
PATRICK J. GULICK
MURIEL B. HERRINGTON
NARINDER N. KAPOOR
BHUPINDER MANGAT

J. DANIEL McLAUGHLIN<br>LUC VARIN<br>PAUL WIDDEN

Assistant Professors
GRANT BROWN
SELVADURAI DAYANANDAN
EMMA DESPLANDS
IAN FERGUSON
VLADIMIR TITORENKO
WILLIAM ZERGES
Distinguished Professor Emeritus
RAGAI K. IBRAHIM
Adjunct Professors
CAROLYN BECKMAN
JACK A. KORNBLATT

| Location | Loyola Campus <br> Science Complex <br> (514) 848-3400 |
| :--- | :--- |
| Department | The Biology Department is dedicated to teaching and research that advance understanding of life <br> Objectives molecules and cells to organisms, populations, and entire ecosystems. The Department's <br> programs inspire students with an appreciation of the rich diversity of the living world. <br> Students acquire a comprehensive grounding in modern biology through classroom study as well as <br> extensive hands-on training in research methodology. A variety of specialized laboratories and <br> equipment supports both research and teaching activities. |
| Programs | The Biology Department offers Honours and Specialization programs in Biology, Cell and Molecular <br> Biology, and Ecology, as well as Major and Minor programs in Biology. Students planning a career or <br> graduate studies in the biological sciences are normally expected to follow the appropriate Honours <br> or Specialization program. The Major program is designed for students who wish to concentrate their <br> studies in biology but at the same time wish to pursue general education in other disciplines. The <br> Major program can be combined with a Major in another department. <br> Students registered in the Honours, Specialization, or Major in Biology may select Biology electives <br> in various subject areas in order to obtain a broad overview of the discipline. However, it is possible <br> for students to pursue in-depth studies in specific areas such as animal biology, plant biology, or <br> microbiology and biotechnology. <br> The Minor program can only be taken by students registered in another degree program and <br> provides an opportunity to gain a basic exposure to the main sub-disciplines of Biology or to pursue <br> one such area in some depth. <br> Students are strongly encouraged to take advantage of academic counselling services available in <br> the Biology Department in order to select the program and courses that best meet their needs. <br> Students may transfer among programs after the first year of study since the core courses in all <br> programs are quite similar. |

## Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.
Students must apply to the departmental Honours adviser for formal admission to Honours programs. The application is usually made after completion of the first-year courses.

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72 BSC Honours in Biology
33 CHEM 2214*, 2223*, 271'; BIOL 2253,
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3 Chosen from BIOL 3223****; CHEM 212 
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33 CHEM $221^{3 *}$, $222^{3 *}$, $271^{3}$; BIOL $225^{3}$,
$226^{3}, 227^{3}, 261^{3}, 266^{3}, 367^{3}, 490^{6}$
3 Chosen from BIOL 322 ${ }^{3 * * * *}$; CHEM $212^{3}$

3 Chosen from BIOL $341^{3}, 364^{3}, 383^{3}$, $449^{3}, 483^{3}$
33 Additional Biology credits*; a minimum of 12 credits in 300 -level Biology courses
and nine credits in 400-level Biology courses must be completed. A minimum of six credits must be selected from courses dealing with the biology of organisms from the following: BIOL $321^{3}, 334^{3}$, $335^{3}, 337^{3}, 341^{3}, 344^{3}, 371^{3}, 383^{3}, 385^{3}$, $386^{3}, 387^{3}, 433^{3}, 435^{3}, 437^{3}, 449^{3}, 483^{3}$.

## 72 BSc Honours in Cell and Molecular Biology

48 CHEM $212^{3}, 222^{3 *}, 222^{3 *}, 271^{3}, 375^{3}$, 477 ${ }^{3}$; BIOL $225^{3}, 226^{3}, 261^{3}, 266^{3}, 366^{3}$, $367^{3}, 368^{3}, 466^{3}, 490^{6}$
9 300- or 400-level Biology credits
15 400-level Biology and Chemistry elective credits including a minimum of: 9 Cell and Molecular Biology credits selected from: BIOL $441^{3}, 443^{3}, 461^{3}$, $462^{3}, 464^{3}, 465^{3}, 468^{3}, 469^{3}, 470^{3}, 471^{3}$, $498^{3 * * *}$
3 Biochemistry credits selected from: CHEM $471^{3}, 472^{3}, 478^{3}, 481^{3}, 498^{3 * * *}$

72 BSc Honours in Ecology
36 CHEM $221^{3 *}, 2222^{3 *}, 271^{3}$; BIOL $225^{3}$, $226^{3}, 227^{3}, 261^{3}, 266^{3}, 367^{3}, 450^{3}, 490^{6}$
3 Chosen from BIOL $322^{3}$ or equivalent
3 Chosen from BIOL $341^{3}, 364^{3}, 383^{3}$, $449^{3}, 483^{3}$
12 Chosen from $\mathrm{BIOL} 321^{3}, 350^{3}, 351^{3}$, $353^{3}, 354^{3}$
6 Chosen from BIOL 451 ${ }^{3}, 453^{3}, 457^{3}, 459^{3}$
12 Biology elective credits at the 300 or 400 level.

60 BSc Specialization in Biology
27 CHEM $221^{3 *}, 222^{3 *}$, $271^{3}$; BIOL $225^{3}$, $226^{3}, 227^{3}, 261^{3}, 266^{3}, 367^{3}$
3 Chosen from BIOL $322^{3 * * * *}$; CHEM $212^{3}$
3 Chosen from BIOL $341^{3}, 364^{3}, 383^{3}$, $449^{3}, 483^{3}$
27 Additional Biology credits*; a minimum of 12 credits in 300 -level Biology courses and six credits in 400-level Biology courses must be completed. A minimum of six credits must be selected from courses dealing with the biology of organisms from the following: BIOL $321^{3}, 334^{3}$, $335^{3}, 337^{3}, 341^{3}, 344^{3}, 371^{3}, 383^{3}, 385^{3}$, $386^{3}, 387^{3}, 433^{3}, 435^{3}, 437^{3}, 449^{3}, 483^{3}$.

## 66 BSc Specialization in Cell and Molecular Biology

42 CHEM $212^{3}, 221^{1^{3 *}}, 222^{3 *}, 271^{3}, 375^{3}$,
$477^{3}$; BIOL $225^{3}, 226^{3}, 261^{3}, 266^{3}, 366^{3}$,
$367^{3}, 368^{3}, 466^{3}$
$9300-$ or 400 -level Biology credits
15 400-level Biology and Chemistry elective credits including a minimum of: 9 Cell and Molecular Biology credits selected from: BIOL $441^{3}, 443^{3}, 461^{3}$, $462^{3}, 464^{3}, 465^{3}, 468^{3}, 469^{3}, 470^{3}, 471^{3}$, $498^{3 * * *}$
3 Biochemistry credits selected from: CHEM $471^{3}, 472^{3}, 478^{3}, 481^{3}, 498^{3 * * *}$

60 BSc Specialization in Ecology
27 CHEM $221^{3 *}, 2222^{3 *}, 271^{3}$; BIOL $225^{3}$, $226^{3}, 227^{3}, 261^{3}, 266^{3}, 367^{3}$
3 Chosen from BIOL $322^{3}$ or equivalent
3 Chosen from BIOL $341^{3}, 364^{3}, 383^{3}$, $449^{3}, 483^{3}$
12 Chosen from $\mathrm{BIOL} 321^{3}, 350^{3}, 351^{3}$, $353^{3}, 354^{3}$
6 Chosen from BIOL $450^{3}, 451^{3}, 453^{3}$, $457^{3}, 459^{3}$
9 Biology elective credits at the 300 or 400 level.

45 BSc Major in Biology
27 CHEM $221^{3 *}, 222^{3 *}$, $271^{3}$; BIOL $225^{3}$, $226^{3}, 227^{3}, 261^{3}, 266^{3}, 367^{3}$
3 Chosen from BIOL $322^{3 * * * *}$; CHEM $212^{3}$
3 Chosen from BIOL $341^{3}, 364^{3}, 383^{3}$, $449^{3}, 483^{3}$
12 Additional Biology credits*; a minimum of nine credits in 300 - and 400 -level Biology courses must be completed.

24 Minor in Biology
12 Chosen from BIOL $206^{3}$ or $261^{3} ; 225^{3}$, $226^{3}, 227^{3}$
12 Biology elective credits
*Students entering the program with cégep Organic Chemistry must replace these credits with elective credits.
**Intermediate Topics in Biology (BIOL 398) and Advanced Topics in Biology (BIOL 498) may be taken as elective courses where the special topic is appropriate.
${ }^{* * *}$ Advanced Topics in Biology (BIOL 498) and Advanced Topics in Chemistry (CHEM 498) may be taken as elective courses where the special topic is appropriate.
${ }^{* * * *}$ See §200.7.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of

## BIOL 200 Fundamentals of Human Biology ( 6 credits)

A series of lectures, demonstrations, and seminars to provide non-biologists with a general survey of the fundamental principles of life, with special emphasis on the structures and functions of human beings. Lectures only. NOTE: Students registered in a Biology or Biochemistry program may not take this course
for credit. Students who have completed cégep Biology 921/931 may not take this course for credit.

BIOL 201 Introductory Biology (3 credits) Fundamentals of plant and animal biology: basic physics and chemistry of life; cell and tissue structures and functions; anatomy and physiology of human systems; survey of plant and animal
taxonomy, ecology, heredity, and evolution. Lectures and laboratory.
NOTE: Students with cégep Biology 301 or equivalent may not take this course for credit.
Students entering BIOL programs without cégep Biology 301 or equivalent must take this course, but not for program credit.
BIOL 202 General Biology (3 credits) This course presents the fundamentals of biology including the basic physics and chemistry of life, the structure and functions of cell and tissues, and aspects of anatomy, physiology, taxonomy, heredity and evolution, with examples ranging from microorganisms to humans. Lectures only. NOTE: Students with cégep Biology 301, 101-NYA, BIOL 201 or BIOL 298A may not take this course for credit. Students enrolled in BSc programs may not take this course for credit.

## BIOL 203 Fundamental Nutrition (3 credits)

This course deals with food composition (carbohydrates, lipids, proteins, vitamins, and minerals), its absorption and utilization, energy balance, special diets, and food technology. Lectures only. NOTE: Students registered in a Biology or Biochemistry program may not take this course for credit.

BIOL 206 Elementary Genetics (3 credits) A survey of classical and contemporary developments in the study of heredity, with particular attention to human examples. This course is open to the general student body. Lectures only. NOTE: Students may not take this course for credit with BIOL 261.
BIOL 207 Microorganisms and Humanity (3 credits)
This course examines the intimate relationships that exist between humans and microorganisms, including the impact of bacteria and viruses on human health, the use of fungi and bacteria in food production and biotechnology, and the roles that all microbes play in global ecosystems. Lectures only.
NOTE: Students registered in a Biology or Biochemistry program may not take this course for credit.
NOTE: Students who have received credit for BIOZ 207 may not take this course for credit.

## BIOL 208 Environmental Biology (3 credits)

This course examines the principles and concepts of ecosystems, the interaction of organisms and their environment. Energy flow and nutrient cycling in ecosystems, population dynamics, and community organization. Lectures only. NOTE: Students registered in a Biology or Biochemistry program may not take this course for credit.
NOTE: Students who have received credit for BIOZ 208 may not take this course for credit.
BIOL 210 Genetics and Human Welfare (3 credits)
A course on the principles of heredity as under-
stood by modern biology. It deals also with the application of genetic principles to organisms, including humans. The biological basis of social problems is dealt with at some length. Organic evolution and its implications for human life and welfare are considered. Lectures only.
NOTE: Students registered in a Biology or Biochemistry program may not take this course for credit; may not be taken for credit with BIOL 206. NOTE: Students who have received credit for BIOZ 210 may not take this course for credit.

## BIOL 225 Form and Function of Organisms (3 credits)

Prerequisite: Cégep Biology 301 or 101-NYA or BIOL 201. An introduction to plant and animal form and function is presented. This course provides an overview of basic physiological and morphological aspects of plants and animals that allow survival and reproduction. Topics in animal biology include animal architecture, internal fluids, homeostasis, digestion and nutrition, nervous and chemical coordination; topics in plant biology include plant organization, photosynthesis, respiration, water relations, and growth regulation. Reproduction and development of both plants and animals are introduced. Lectures only. NOTE: Students who have received credit for BIOL 230 and 240 may not take this course for credit.

## BIOL 226 Biodiversity and Ecology

 (3 credits)Prerequisite: Cégep Biology 301 or 101-NYA or BIOL 201. This course introduces the evolution, biodiversity, and ecology of organisms. The origin and diversity of life, from prokaryotes, through simple eukaryotes to multi-cellular organisms are introduced. Natural selection, speciation, and phylogeny, stressing evolutionary relationships in conjunction with changing conditions on earth, are presented. The course introduces major concepts in ecology: the physical and chemical environment, population structure, life histories, species interactions, communities, and ecosystems. Lectures only. NOTE: Students who have received credit for BIOL 250 and 270 may not take this course for credit.

## BIOL 227 Laboratory Studies of Organisms (3 credits)

Prerequisite: BIOL 225; BIOL 226 previously or concurrently. Laboratory exercises are designed to acquaint students with biodiversity and to introduce methodologies common to studies of organisms and populations. This course includes field trips, dissections, use of taxonomic keys, and basic exercises in physiological function. Use of the microscope, variability within populations, basic techniques in microbiology, and elementary population dynamics are presented. Tutorials include videotapes of plant and animal diversity, history, and behaviour. Laboratory and tutorial.
NOTE: Students who have received credit for BIOL 230, 240, and 270 may not take this course for credit.

BIOL 261 Molecular and General Genetics (3 credits) Prerequisite: Cégep Biology 301 or 101-NYA or BIOL 201; CHEM 221 previously or concurrently. Basic genetic principles, including mechanisms of meiosis and mitosis, Mendelian genetics, recombination, gene mapping, and chromosome rearrangements; an introduction to molecular genetics, including nucleic acid structure and biosynthesis transcription and translation; the course also includes an introduction to recombinant DNA technology and to concepts of population genetics. Lectures and tutorials.

## BIOL 266 Cell Biology (3 credits)

Prerequisite: BIOL 261; CHEM 271 previously or concurrently. Structure and functions of the cell and its organelles: cytoskeleton, chromosomes, cell cycle and cell division, organelle biogenesis, cell differentiation, including the immune system and cell communication. Lectures only.
NOTE: Students who have received credit for BIOL 365 or this topic under a BIOL 298 number may not take this course for credit.

## BIOL 298 Selected Topics in Biology (3 credits)

Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## BIOL 321 Evolution (3 credits)

Prerequisite: BIOL 225, 226. Through readings, discussions, and lectures, students explore the evidence for evolution, as well as current theories for the mechanisms that cause evolutionary change. Topics covered include principles of inheritance, the origin of genetic variation, adaptation through natural selection, random processes in evolution, the origin of species, and the role of macroevolutionary processes in shaping current patterns of biodiversity. Lectures only.
NOTE: Students who have received credit for BIOL 359 may not take this course for credit.

BIOL 322 Biostatistics ( 3 credits) Prerequisite: Twelve (12) BIOL credits in a Biology Major, Honours, or Specialization program. Statistical methods for the biological sciences; sampling; experimental design; data description; elementary probability; binomial, Poisson and Normal distributions; statistical inference; hypothesis testing; chi-square; analysis of variance; correlation; regression; covariance analysis; and analogous non-parametric techniques. Lectures and laboratory. NOTE See §200.7

## BIOL 334 Vertebrate Embryology (3 credits)

Prerequisite: BIOL 225, 226, 227 previously or concurrently. The fundamental processes of growth and development in vertebrates are examined. Morphogenetic events in selected vertebrate species are compared by laboratory
study. Topics covered include reproduction, gemetogenesis, fertilization, cleavage patterns, gastrulation, organogenesis, metamorphosis, regeneration, and extra-embryonic membranes. Lectures and laboratory.

## BIOL 335 Introductory Histology (3 credits)

Prerequisite: BIOL 225. A comparative study of the microscopic characteristics of cells, tissues, and organs of vertebrates. Lectures and laboratory.

## BIOL 337 Invertebrate Diversity (3 credits)

Prerequisite: BIOL 225, 226, 227. This is a survey course that examines the phylogeny, structure, and some general aspects of the biology of the major invertebrate phyla. Lectures will emphasize phylogenetic and biological topics; classification and morphology will be emphasized in the laboratory. Lectures and laboratory.

## BIOL 341 Physiology of Plant

 Development (3 credits)Prerequisite: BIOL 225, 226, 227 previously or concurrently. Physiological and biochemical aspects of plant growth and development. Plant responses to growth regulators, their mode of action and their use in plant tissue culture. The role of light and temperature in seed germination, dormancy, and flowering. Lectures only. NOTE: Students who have received credit for BIOL 346 may not take this course for credit.

BIOL 344 Biology of Algae (3 credits) Prerequisite: BIOL 225, 226, 227 previously or concurrently. Taxonomy, physiology, and ecology of algae, with special consideration of their involvement in water pollution, sewage treatment, primary production, and their utilization in industry. Lectures and laboratory. NOTE: Students who have received credit for BIOL 246 may not take this course for credit.

## BIOL 350 The Ecology of Individuals

 (3 credits)Prerequisite: BIOL 225, 226. This course is designed to introduce students to the diversity of adaptations possessed by individuals which enables them to interact successfully with the abiotic and biotic environment. Major topics include adaptive responses to temperature, water, light, and other species. Physiological adaptations are emphasized. Lectures only. NOTE: Students who have received credit for BIOL 398A (Intermediate Concepts in Ecology) may not take this course for credit.

## BIOL $351 \quad$ Basic Population Ecology

 (3 credits)Prerequisite: BIOL 226. This course introduces the processes which determine the distribution and abundance of individuals in populations. Population growth, density-dependent and densityindependent population regulation, survivorship, life history parameters, the population dynamics of competition, predation and parasitism, and
the roles of predation and competition in affecting community structure are discussed. Lectures and tutorials.
NOTE: Students who have received credit for BIOL 454 may not take this course for credit.

## BIOL 353 Communities and Ecosystems (3 credits)

Prerequisite: BIOL 225, 226; BIOL 227 previously or concurrently. This course presents an introduction to biological communities, the processes that maintain them and their emergent properties. Topics include the interactions between abiotic and biotic factors in determining community composition, the concepts of niche and habitat, succession theory, community diversity and stability, energy flow and nutrient cycling. Examples emphasize both aquatic and terrestrial ecosystems, and the major global biomes. Lectures only.

## BIOL 354 Behavioural Ecology (3 credits)

Prerequisite: BIOL 226. Behavioural ecology is the study of behavioural adaptation. The topics include foraging, anti-predator, fighting, mating, reproductive and social behaviour. Students will be introduced to optimality and game theories. Lectures and tutorials.
NOTE: Students who have received credit for BIOL 358 or 453 may not take this course for credit.

## BIOL 364 Cell Physiology (3 credits)

 Prerequisite: BIOL 266. A survey of the mechanisms and physical processes involved in the functions of single cells and organelles, especially membrane-mediated functions: structures and properties of membranes, transport, signal transduction, motility, energy transduction. Lectures only.
## BIOL 366 Mechanisms of Development (3 credits)

Prerequisite: BIOL 261, 266. This course deals with the mechanisms of cellular interaction and genetic control which govern animal development and cell differentiation. This includes how cell movement and cell recognition take place, how the genome is restricted in differentiation, how cytoplasmic signals influence differentiation, how gradients affect development, how genes control segmentation, and how oncogenes, growth factors, and hormones influence development. The role of genetic engineering in the understanding of developmental processes is discussed. Lectures only.
NOTE: Students who have received credit for BIOL 463 may not take this course for credit.

BIOL 367 Molecular Biology (3 credits) Prerequisite: BIOL 261; CHEM 271. DNA structure, recombination, gene structure, gene expression, and its regulation. The experimental evidence that supports these concepts is also discussed. Lectures and tutorials.
NOTE: Students who have received credit for this topic under a BIOL 398 number may not take this course for credit.

BIOL 368 Genetics and Cell Biology Laboratory (3 credits) Prerequisite: BIOL 364 previously or concurrently; CHEM 212 or 217. This course introduces students to the basic laboratory techniques of genetics, molecular biology, and cell biology. Experiments include identification, characterization, and genetic mapping of bacterial mutants, isolation of bacterial DNA and its use for transformation. Primary cultures of mammalian lymphocytes are studied with respect to proliferation using an ELISA technique. Physiological studies include cell membrane functions in red blood cells, active and facilitated transport in bacteria, oxygen evolution and ATP synthesis in chloroplasts, ATP synthesis and electron transport in mitochondria and nerve action potentials. Laboratory and tutorials.

## BIOL 371 Microbiology ( 3 credits)

Prerequisite: Six credits chosen from BIOL 226, 261, CHEM 271; or permission of the Department. This course provides an in-depth study of the structure and function of microbes. It emphasizes the genetic and biochemical characteristics of microbes which distinguish them from plants and animals. Consideration is also given to the impact of microbes on the global environment and on the quality of human life. Lectures only. NOTE: Students who have received credit for BIOL 370 may not take this course for credit.

BIOL $380 \quad$ Nutrition ( 3 credits)
Prerequisite: CHEM 221, 222; CHEM 271 recommended. The concept of a balanced diet is studied in relation to caloric content and to protein, lipid, carbohydrate, vitamin, and mineral requirements. The consequences of dietary deficiencies are examined. Special topics such as dieting, organic foods, megavitamins, food additives, and toxins are discussed. Lectures only.

BIOL 381 Biology of Pollutants (3 credits) Prerequisite: BIOL 225, 226. The purpose of this course is to study the impact of pollution on ecosystems. The major classes of pollutants are considered in relation to their nature, origin, and distribution, and particularly their mode of action on individual organisms and ecosystems. Air, water, and soil are examined with their respective pollutants and a major emphasis is given to quantitative assessments of various agents and their effects. The course also includes theoretical and practical aspects of bio-assays, and an overview of case studies and of control measures. Lectures only.

## BIOL 383 Vertebrate Physiology I

 (3 credits)Prerequisite: BIOL 225, 226, 227; CHEM 271 recommended. A study of basic cellular and physiological mechanisms in vertebrates. Topics discussed include regulation of animal internal environment, neuromuscular physiology, sensory mechanisms, and control of body movements. Lectures and laboratory.
NOTE: Students who have received credit for BIOL 333 or PSYC 358 may not take this course for credit.

## BIOL 385 Entomology (3 credits)

 Prerequisite: BIOL 225; BIOL 226 previously or concurrently, BIOL 227 recommended. This course introduces the student to the variety and complexity of insect life. Basic classification is followed by a more detailed study of morphology and anatomy, together with some physiological considerations. Other topics such as adaptations for aquatic life and social behaviour are discussed. Laboratories include the identification of insects collected by students, as well as structured laboratory sessions which complement the lectures. Lectures and laboratory.NOTE: Students who have received credit for BIOL 232 may not take this course for credit.

## BIOL 386 Insect Behaviour and Physiology (3 credits)

Prerequisite: BIOL 225, 226. This course deals with insect physiology and behaviour. It emphasizes the relationships between structure and function of various insect parts. The lecture topics will include the following: introduction to insect behaviour, vision, gustation, olfaction, phermones, hormones, light production, sound production and perception, social behaviour, diapause, migration, insect control, and coevolution of insects and plants. Lectures only. NOTE: Students who have received credit for BIOL 398D may not take this course for credit.

BIOL 387 Vertebrate Anatomy (3 credits) Prerequisite: BIOL 225, 226, 227. Study of anatomical structures of a representative series of vertebrates from a comparative and evolutionary perspective, with some special emphasis on the mammals. In laboratory periods, representatives of selected classes of vertebrates are dissected. Lectures and laboratory.
NOTE: Students who have received credit for BIOL 331 may not take this course for credit.

## BIOL 398 Intermediate Topics in Biology

 (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## BIOL 433 Parasitology ( 3 credits)

Prerequisite: BIOL 225, 226, 227; 337 recommended. This course surveys the protozoan and worm parasites that infect humans, livestock, and wildlife. Morphology and pathology are discussed and host-parasite relations, ecology, and transmission are emphasized. Early laboratory exercises are designed to acquaint students with proper collection, preservation, and processing of specimens, and this material is used to explore parasite populations on a continuing basis throughout the course. The remainder of the laboratory sessions focuses on the specific groups of parasites with emphasis on morphology, diagnosis, and life-cycle stages and patterns. Lectures and laboratory.
NOTE: Students who have received credit for BIOL 332 may not take this course for credit.

BIOL 435 Advanced Histology (3 credits) Prerequisite: BIOL 335. An advanced comparative
study of the vertebrate organ systems at the ultrastructural and histological level. Lectures and laboratory.
NOTE: Students who have received credit for BIOL 336 may not take this course for credit.

## BIOL 437 Invertebrate Functional Biology (3 credits)

Prerequisite: BIOL 337. This course will examine the ways in which various functions, including feeding, gas exchanges, osmoregulation, neural and chemical coordination, are accomplished in invertebrate animals. Each process will be examined in the context of its basic physiological and physical elements, then examined in a variety of invertebrate animals to illustrate how each accomplishes the particular function. Lectures only. NOTE: Students who have received credit for BIOL 338 may not take this course for credit.

## BIOL 441 Plant Biochemistry (3 credits)

 Prerequisite: BIOL 367. Biochemical study of the natural constituents and secondary metabolites unique to plants. Their biosynthesis, biotransformations, and functions in plants, as well as their economic and pharmacologic importance are stressed. Lectures only.
## BIOL 442 Perspectives in Plant Tissue Culture and Plant Biotechnology (3 credits)

Prerequisite: BIOL 341. This course looks at plant-growth regulators, nutritional requirements, and other factors necessary for in-vitro culturing of plant cells and tissues. The course also discusses methods available for nuclear transfers and the propagation of transformed plants. Lectures only.
NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

## BIOL 443 Plant Molecular Genetics

 (3 credits)Prerequisite: BIOL 367. This course analyses plant genome structure, mRNA population complexity, gene-cloning strategies, gene transfer in plants, gene regulation, and a survey of topics such as signal transduction, plant disease resistance, herbicide resistance, metabolic engineering, and environmental stress resistance. Innovative applications of molecular analysis and genetic engineering in plants have had a dramatic impact on our basic understanding of plant growth and development, on genetic improvements of commercial varieties of crop plants, and on novel applications such as the production of pharmaceutical compounds, plastics and mammalian antibodies in plants. Lectures only. NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

## BIOL $449 \quad$ Physiology and Metabolism of

 Flowering Plants (3 credits) Prerequisite: A minimum of three credits chosen from BIOL 341, 350, 353, 367, 383. This course deals with the physiological and biochemicalprocesses of flowering plants, blending modern molecular approaches with traditional physiological and biochemical methods and environmental physiology to understand how plants work. Topics include the role of water and minerals in the normal development of plants, how carbon is fixed during photosynthesis, the utilization and metabolism of photosynthetic products, and the assimilation of nitrogen and sulphur. These processes are discussed in relation to the environmental factors which govern them. Lectures only. NOTE: Students who have received credit for BIOL 349 may not take this course for credit.

## BIOL 450 Techniques in Ecology (3 credits)

Prerequisite: BIOL 227, 322 or equivalent, and a minimum of six credits from BIOL 321, 350, 351, 353,354 . This course introduces students to a variety of techniques of experimental design, data collection, and quantitative analysis. Students participate in a series of modules, each of which presents experimental and analytical techniques appropriate for one area of modern research in ecology, behaviour, or evolution. Some modules require students to collect and subsequently analyse original data from field or laboratory settings. Modules and their contents may vary from year to year. Tutorials and laboratory.

## BIOL $451 \quad$ Plant Field Ecology (3 credits)

 Prerequisite: BIOL 322 or equivalent, BIOL 353. This course is designed to give students practical experience working with plant communities. It is offered at a field station during the last two weeks of August, and residence is mandatory. Students learn to identify plant species occurring in field, forest, and mountain communities, with the aim of describing and understanding plant community patterns. Methods of sampling and statistical analysis of population and community data are discussed and applied. The course is a combination of formal lectures, organized field studies, and informal discussions. Students are required to hand in a series of written reports and a plant collection after the course has ended.NOTE: Students who have received credit for BIOL 352 may not take this course for credit.

## BIOL 452 Conservation Genetics

(3 credits)
Prerequisite: BIOL 261; three credits chosen from BIOL 321, 351, or 353. Conservation genetics employ the principles of population genetics and systematics to address problems related to conservation of biodiversity. This course examines the main factors that affect genetic variation within and among populations, including natural selection, random genetic drift, mutation and gene flow. The impact of human activities on levels and patterns of genetic variation in both plant and animal communities is discussed. The utility of molecular markers in determining conservation units is examined. Several case studies from the current literature are used to illustrate the many applications of modern molecular techniques in conservation genetics. The course comprises
lectures, student presentations, and use of software in genetic data analysis.
NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 453 Microbial Ecology (3 credits) Prerequisite: BIOL 353. This course examines the role of the microbial community in the fundamental processes of decomposition and nutrient cycling. We discuss the role of microbes in the breakdown of organic molecules and the release and transformation of mineral elements. Emphasis is placed on the interactions between bacteria, fungi, and the microfauna in decomposition and on the role of interactions between plants and microbes in the maintenance of nutrient cycles. Lectures only.
NOTE: Students who have received credit for BIOL 356 or 458 may not take this course for credit.

## BIOL 457 Applied Ecology and Conservation Biology (3 credits)

 Prerequisite: A minimum of nine credits chosen from BIOL 321, 350, 351, 353, 354. This course applies principles of ecology at the individual, population, community and ecosystem level to identify and solve practical environmental problems. Topics include pollution, climate change, farming, harvesting renewable resources, designing nature reserves and conserving biodiversity. Lectures and tutorials.BIOL 459 Aquatic Ecology (3 credits) Prerequisite: BIOL 322 or equivalent, BIOL 353. This course introduces the student to aquatic ecosystems. The first half of the course concentrates on the biological basis of primary and secondary productivity. The second half of the course explores the ecology of fishes at the individual, population, community, and ecosystem levels of analysis. Lectures, field trips, and laboratory. NOTE: Students who have received credit for BIOL 355 or 431 may not take this course for credit.

## BIOL 460 Molecular Genetics (3 credits)

 Prerequisite: BIOL 367. Basic microbial and molecular genetics, including isolation and characterization of mutants, methods of mapping mutants, transposons, episomes, and recombinant DNA techniques. Lectures and conferences.BIOL 461 Advanced Genetics (3 credits) Prerequisite: BIOL 367. Directed readings and seminars in classical and contemporary genetics designed to expose the student to research literature and problems. Students probe in greater depth areas of particular interest in order to develop a critical sense and deepen an understanding of past and current work in this field. Seminars only.

BIOL 462 Immunology (3 credits) Prerequisite: BIOL 266, 367. The role of the immune system in maintenance of body homeostasis will be presented with particular reference
to cells and tissues of the immune system, their organization as well as their structural and functional relationships. Topics include: maturation and differentiation of B and T lymphocytes; structure and properties of antibodies; immune responses to antigens; genetic aspects of antibody synthesis; immunological considerations in AIDS, cancer, and autoimmune diseases. Lectures and seminars.

## BIOL 464 Advanced Cell Biology

 (3 credits)Prerequisite: BIOL 266, 367. Lectures dealing with selected topics in mammalian cell biology. These include introduction to the elements of cell culture with reference to the growth and function of non-differentiated and differentiated cells, control of cell cycling under normal and abnormal states, mechanisms of peptide and steroid hormone action with emphasis on intracellular signalling pathways, the control of gene transcription and detailed analysis of the effect of host cell factors on virus replication. Lectures only. NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

## BIOL 465 Biological Regulatory Mechanisms (3 credits)

Prerequisite: BIOL 261; CHEM 271; or permission of the Department. The molecular basis of the control of metabolic pathways, with an emphasis on prokaryotic systems. The course concentrates on the analysis of the rationale of experimentation used to elucidate these regulatory mechanisms. Lectures and conferences.

## BIOL 466 Advanced Laboratory in Molecular Biology (3 credits)

Prerequisite: BIOL 367, 368. Theory and practice of modern experimental procedures of molecular biology, including use of restriction enzymes, gene cloning, hybridizations, DNA sequencing, site-directed mutagenesis, and the use of bacteria and phage in biotechnology. Laboratory and tutorials.
NOTE: Students who have received credit for CHEM 479 may not take this course for credit.

## BIOL 468 Gene Structure ( 3 credits)

 Prerequisite: BIOL 367. This course deals with gene regulation in eukaryotes. Topics covered include transcription, transcript processing, translation, and post-translational processes. Lectures only.NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 469 DNA Repair (3 credits)
Prerequisite: BIOL 367. This course deals with the chemical alterations arising spontaneously in DNA during semi-conservative replication and as a result of exposure to ionizing radiation, ultraviolet radiation, and genotoxic chemicals. The repair of DNA damage by various enzymatic processes in both prokaryotic and eukaryotic cells is discussed. Lectures only.
NOTE: Students who have received credit for
this topic under a BIOL 498 number may not take this course for credit.
BIOL 470 Microbial Physiology ( 3 credits)
Prerequisite: BIOL 225, 226; CHEM 271. Comparative biochemistry of prokaryoles - a study of the biochemical activities underlying the life of micro-organisms. A description of the diverse biochemical adaptations used by micro-organisms to obtain energy and building materials from their various environments. Lectures and tutorials.

## BIOL 471 Mechanism of Protein Synthesis (3 credits)

Prerequisite: BIOL 367. Cells synthesize many different proteins containing different sequences of amino acids. Synthesis of proteins is carried out by ribosomes (composed of proteins and RNA) and a variety of protein and RNA molecules that interact with the ribosome. The translation of the nucleotide sequence of a messenger RNA into the amino acid sequence of a protein involves over one hundred different proteins and RNA molecules. This course discusses current research on protein synthesis. Specific topics include the structure and function of ribosome and the other proteins and RNAs involved in translation, quality control in protein synthesis (translational accuracy), and the mechanisms of various types of programmed "errors" in translation. Lectures only.
NOTE: Students who have received credit for BIOL 498V may not take this course for credit.

## BIOL 483 Vertebrate Physiology II

 (3 credits)Prerequisite: BIOL 383; BIOL 387 recommended. This course is a continuation of BIOL 383 and includes the study of mechanisms by which activities of major organ systems are coordinated and regulated in vertebrates, especially humans. Topics covered include blood, cardio-vascular systems, respiration, water-electrolyte regulation, digestion, and metabolism. Lectures and laboratory. NOTE: Students who have received credit for BIOL 384 may not take this course for credit.
BIOL 490 Independent Study ( 6 credits) Prerequisite: Sixty (60) credits in an Honours or Specialization program in Biology, and permission of the Department. In this course, the student undertakes a special research project selected in consultation with, and conducted under, the supervision of a faculty member of the Department. The project is intended to develop the student's knowledge of standard scientific procedures, including methods of researching scientific literature, the planning and execution of experimental and analytical procedures, the writing of a formal report, and the presentation of a seminar on the project.
NOTE: Students may register in September or January for this course, but work must continue over two consecutive semesters.

## BIOL 498 Advanced Topics in Biology

 (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.050 снйs.an AND BIOCHEMISTRY 

| Faculty | Chair | Assistant Professors |
| :---: | :---: | :---: |
|  | MARCUS F. LAWRENCE, Professor | LOUIS CUCCIA CHRISTINE DEWOLF |
|  | Professors | YVES GELINAS |
|  | PETER H. BIRD | PHILIPPE MERLE |
|  | JOHN A. CAPOBIANCO | HEIDI M. MUCHALL |
|  | ANN M. ENGLISH | SEBASTIEN ROBIDOUX |
|  | MARY JUDITH KORNBLATT | HANS GEORG SCHRECKENBACH |
|  | RAYMOND LE VAN MAO | CAMERON SKINNER |
|  | Associate Professors | Adjunct Professors |
|  | GEORGE DENES | MARY BALDWIN |
|  | DAVID B. JACK | DOROTHY POCOCK |
|  | PAUL JOYCE | GEOFFREY SUNAHARA |
|  | GILLES H. PESLHERBE | Distinguished Professors Emeriti |
|  | JUSTIN B. POWLOWSKI | MARK DOUGHTY |
|  | JOANNE TURNBULL | OSWALD S. TEE |
| Location | Loyola Campus |  |
|  | Science Complex |  |
|  | (514) 848-3366 |  |
|  | Chemistry is the science that examines the structure of substances and the reactions to produce novel and useful products. Biochemistry is that part of chemistry which deals with chemical changes |  |
| Department <br> Objectives |  |  |
|  | novel and useful products. Biochemistry is that part of chemistry which deals with chemical changes occurring in biologically relevant systems; i.e. changes taking place in living cells that are responsible |  |
|  | The mission of the Department is fourfold: (i) excellence in teaching and research in the fields of chemistry and biochemistry; (ii) develop and maintain strong undergraduate and graduate teaching programs; (iii) develop and maintain state-of-the-art quality research; and (iv) meet the high standards of the scientific and industrial communities. Our programs have strength in both the applied and the theoretical fields. |  |

Programs
Students are responsible for satisfying their particular degree requirements.
All students are advised to include a course in a computer language in their degree program. The Order of Chemists of Québec has fully accredited the curricula of i) Honours in Chemistry; ii) Honours in Biochemistry; iii) Specialization in Biochemistry; iv) Specialization in Chemistry. Upon satisfactory completion of any of the above-mentioned programs, a graduate is eligible for membership in the Order. A working knowledge of French is required.
Students should note that CHEM 450 has a performance prerequisite and is essential for Honours programs. CHEM 419 has a performance prerequisite for the Specialization programs. Students who cannot meet these prerequisites will not be able to complete the programs but may complete a
Major. For more details, students should consult with the Department.
Courses that consist of both laboratories and lectures require that a satisfactory performance be obtained in each of the components for successful completion of the course.
The superscript indicates credit value.

45 Core Component for Chemistry CHEM $217^{3}, 218^{3}, 221^{3 *}, 222^{3 *}, 234^{3}$, $235^{3}, 241^{3}, 242^{3}, 271^{3}, 312^{3}, 324^{3}, 325^{3}$, $333^{3}, 341^{3}, 393^{3}$
*For cégep equivalents these courses must be replaced with an equivalent number of other Organic Chemistry credits.

48 Core Component for Biochemistry BIOL $261^{3}, 266^{3}, 364^{3}, 368^{3}$; CHEM $217^{3}$, $218^{3}, 221^{3 *}, 222^{3 *}, 234^{3}, 235^{3}, 241^{3}, 271^{3}$, $324^{3}, 335^{3}, 375^{3}, 393^{3}$
*For students entering with the cégep equivalents,
these credits must be replaced with an equivalent number of other Organic Chemistry credits (for students in the Specialization or Honours) or with an equivalent number of credits in Chemistry or related disciplines, as approved by the departmental adviser (for students in the Major).

## BSc Honours in Chemistry

An Honours in Chemistry program consists of completion of the requirements of the Specialization in Chemistry with the election of CHEM $450^{6}$ as the senior research project. NOTE: Students must meet the University
regulations concerning the Honours degree. Honours students are encouraged to attend departmental seminars.

## 60 BSc Honours in Chemistry <br> 45 Core component for Chemistry <br> 3 CHEM 495 ${ }^{3}$ <br> 12 Additional credits in Chemistry which must include CHEM $450^{6}$

72 BSc Honours in Biochemistry
48 Core component for Biochemistry
3 CHEM $477^{3}$ or BIOL $466^{3}$
15 CHEM $312^{3}, 325^{3}, 450^{6}$; BIOL $367^{3}$
6 Credits of 400-level courses in the Biochemistry area (CHEM 470 ${ }^{3}$, $471^{3}$, $472^{3}, 475^{3}, 478^{3}, 481^{3}$, and when appropriate, CHEM $498^{3}$ ); three credits may be replaced by a 400 -level course in Chemistry or a 400 -level course in Cell and Molecular Biology (BIOL 441 ${ }^{3}$, 461 ${ }^{3}$, $462^{3}, 464^{3}, 465^{3}, 468^{3}, 469^{3}, 470^{3}$, and when appropriate, BIOL 4983).
NOTE: Students must meet the University regulations concerning the Honours degree. Honours students in second year and beyond are encouraged to attend departmental seminars.

60 BSc Specialization in Chemistry
45 Core component for Chemistry
3 CHEM 495 ${ }^{3}$
12 Additional credits in Chemistry, which must include *CHEM $419^{6}$
*With departmental permission, the student may substitute CHEM $450^{6}$ for CHEM $419^{6}$.

69 BSC Specialization in Biochemistry
48 Core component for Biochemistry
15 CHEM $312^{3}, 325^{3}, 477^{3}$; BIOL $367^{3}, 466^{3}$

6 Credits of 400 -level courses in the Biochemistry area (CHEM $470^{3}, 471^{3}$, $472^{3}, 475^{3}, 478^{3}, 481^{3}$, and when appropriate, CHEM $498^{3}$ ); three credits may be replaced by a 400 -level course in Chemistry or by a 400 -level course in Cell and Molecular Biology (BIOL 441 ${ }^{3}$, $461^{3}, 462^{3}, 464^{3}, 465^{3}, 468^{3}, 469^{3}, 470^{3}$, and when appropriate, BIOL $498^{3}$ ).

## 45 BSc Major in Chemistry

45 Core component for Chemistry Substitution of courses from within the Core program by other courses in Chemistry or related disciplines (Mathematics, Physics, Biology, Geology) up to a maximum of nine credits, will be accepted, if previously approved by a departmental program adviser. It is expected that such substitutions will be in accord with the overall program of study being followed by the student.

## 48 BSc Major in Biochemistry

48 Core component for Biochemistry
*For students with cégep equivalents, these may be replaced by an equivalent number of credits in Chemistry or related disciplines, as approved by the departmental adviser.

## 24 Minor in Chemistry

24 Chosen from the Department's offerings, with due regard to prerequisites, such that the courses chosen form a coherent pattern which complements the student's other areas of study. The course pattern chosen must have been previously approved by a departmental program adviser.

Chemistry and Biochemistry Co-operative Program

Co-Directors
ANN M. ENGLISH, Professor
SEBASTIEN ROBIDOUX, Assistant Professor
The Chemistry and Biochemistry Co-operative program is offered to students who are enrolled in the BSc Honours or Specialization in Chemistry and Biochemistry. Students interested in applying for the Chemistry and Biochemistry co-op should refer to §24 where a full description of the admission requirements is provided.
Academic content is identical to that of the regular program, but six Study terms are interspersed with four Work terms.
Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education, in order to continue their studies in the co-op format.
Liaison between the student, the employers and the Institute for Co-operative Education is provided by the Chemistry and Biochemistry co-op committee, which includes the student's advisers. Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

A student may be exempted from one or more of the introductory courses, on the basis of work done at the cégep level. Where exemptions are given, replacement courses must be chosen with the approval of a department adviser. In the case of certain programs approved by the Order of Chemists of Québec, the courses must be replaced with an equivalent number of credits in the same sub-discipline as the exemptions.

Because of the renumbering of courses in the Department, students should see $\$ 200.1$ for a list of equivalent courses.

CHEM 205 General Chemistry I (3 credits) Stoichiometry, states of matter, atomic structure, electron structure of atoms, the periodic table, periodic properties, bonding, solids. Lectures and laboratory.
NOTE: This course presumes a good grounding in secondary school mathematics. Students lacking such grounding or non-science students seeking only an awareness of chemistry are advised to enrol in CHEM $208^{3}$.
NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration.

CHEM 206 General Chemistry II (3 credits) Prerequisite: CHEM 205. Thermochemistry, solutions and their properties, equilibrium, ionic equilibrium, pH, buffers, kinetics, reaction mechanisms, other selected topics related to biochemistry, biology, and engineering. Lectures and laboratory.
NOTE: Students in programs leading to the BSC degree may not take this course for credit to be applied to their program of concentration.

## CHEM 208 Chemistry in Our Lives

 (3 credits)This course is designed as an introduction to chemistry for non-science students. It concentrates on establishing the chemical concepts and vocabulary necessary to understand the many roles chemistry plays in people's daily lives. Issues to be presented will range from design and testing of drugs to protection of the ozone layer. The chemical phenomena, methodology, and theory will be presented as needed to understand the various issues covered in the course. Lectures only.
NOTE: This course is not a prerequisite for any Chemistry course. This course may not be taken for credit by science students.
NOTE: Students who have received credit for CHEZ 208 may not take this course for credit.

## CHEM 209 Discovering Biotechnology

 (3 credits)The course begins with an exploration of the roles of genes and proteins in life processes. It then proceeds to an examination of the basic scientific principles behind manipulation of biological molecules to produce desired changes. Students are introduced to the specific applications of the technology to medicine, agriculture, and the environment. Economic and ethical issues raised by biotechnology are also examined. NOTE: This course is intended for non-scientists, and may not be taken for credit by Biochemistry or Biology students.
NOTE: Students who have received credit for CHEZ 209 may not take this course for credit.

CHEM 212 Analytical Chemistry for
Biologists (3 credits)
Prerequisite: Cégep Chemistry 201 or 202-NYB
or CHEM 206; cégep Physics 301 or 203-NYC or PHYS 206 and 226; cégep Mathematics 203 or 201-NYB or MATH 205. Chemical equilibria and titrations, treatment of analytical data, introduction to spectroscopy. Lectures and laboratory.
NOTE: This course may not be taken for credit by students registered in a Chemistry or Biochemistry program.

## CHEM 217 Introductory Analytical Chemistry I (3 credits)

Prerequisite: Cégep Chemistry 201 or 202-NYB or CHEM 206; cégep Physics 301 or 203-NYC or PHYS 206 and 226; cégep Mathematics 103 or 201-NYA or MATH 203; cégep Mathematics 203 or 201-NYB or MATH 205. Precipitation methods and solubility products; activity, chemical equilibria and titration curves of neutralization and complexation systems; treatment of analytical data. Lectures and laboratory.

## CHEM 218 Introductory Analytical Chemistry II (3 credits)

Prerequisite: CHEM 217. Chemical equilibria and titration curves of oxidation-reduction, precipitation, and non-aqueous systems; potentiometry and potentiometric titrations; introduction to spectroscopy with emphasis on molecular and atomic absorption spectroscopy, fluorescence spectroscopy. Lectures and laboratory.

## CHEM 221 Introductory Organic Chemistry I (3 credits)

 Prerequisite: Cégep Chemistry 201 or 202-NYB or CHEM 206. Basic aspects of orbitals and their role in covalent bonding; delocalization of electrons. Alkanes: structure, nomenclature, isomerism, reactions. Introductory stereochemistry: enantiomers, diastereomers, conformers, Fischer and Newman projections, specification of chirality, E/Z isomerism. Conformations of cyclic compounds. Alkylhalides: $\mathrm{S}_{\mathrm{N}} 1 ; \mathrm{S}_{\mathrm{N}} 2 ; \mathrm{E} 1$; E2 reaction mechanisms. Free-radical reactions, organometallic compounds. Chemistry of alcohols, ethers, and related compounds. Chemistry of alkenes, alkynes, and dienes. Lectures and laboratory.
## CHEM 222 Introductory Organic <br> Chemistry II (3 credits)

Prerequisite: CHEM 221, or one semester cégep Organic Chemistry. Introduction to the use of IR and NMR spectroscopy for the identification of simple organic compounds. Benzene and aromatic compounds: aromaticity, electrophilic aromatic substitution, nucleophilic aromatic substitution, substituent effects. Chemistry of aldehydes and ketones: nucleophilic addition, oxidation, reduction, and condensation reactions, tautomerism. Chemistry of carboxylic acids and their derivatives: amines: basicity, reactions. Lectures and laboratory.

## CHEM 234 Physical Chemistry I:

 Thermodynamics (3 credits)Prerequisite: Cégep Chemistry 201 or 202-NYB or CHEM 206; cégep Physics 301 or 203-NYC or PHYS 206 and 226; cégep Mathematics 103 or 201-NYA or MATH 203; cégep Mathematics 203 or 201-NYB or MATH 205. The properties of real gases; fugacities; first, second and third laws of thermodynamics; the Phase Rule; oneand two-component systems; real solutions, and partial molal properties. Lectures, problem assignments, and assigned readings.

CHEM 235 Physical Chemistry: Kinetics of Chemical Reactions (3 credits) Prerequisite: CHEM 234; Cégep Chemistry 201 or 202-NYB or CHEM 206; cégep Physics 301 or 203-NYC or PHYS 206 and 226; cégep Mathematics 103 or 201-NYA or MATH 203; cégep Mathematics 203 or 201-NYB or MATH 205. Mathematical treatment of experimental results; theories of reaction rates; unimolecular reactions; the steady-state approximation; factors influencing rates of reactions in solution; acid-base catalysis; catalysis by enzymes and the Michaelis-Menten mechanism; free-radical reactions; photochemical reactions; experimental methods and techniques. Lectures and laboratory.

## CHEM 241 Inorganic Chemistry I: Introduction to Periodicity and Valence Theory (3 credits)

Prerequisite: Cégep Chemistry 201 or 202-NYB or CHEM 206; cégep Physics 301 or 203-NYC or PHYS 206 and 226; cégep Mathematics 103 or 201-NYA or MATH 203; cégep Mathematics 203 or 201-NYB or MATH 205. The structure of the atom; the periodic table; properties of atoms, covalent bonding treatments including Lewis theory, valence shell electron pair repulsion theory of structure, valence bond and molecular orbital theory. Crystal field theory applied to the structure and properties of transition metal complexes. Bonding theories of metallic materials and semi-conductors. Lectures and laboratory.

## CHEM 242 Inorganic Chemistry II: The Chemistry of the Main Group Elements (3 credits)

Prerequisite: Cégep Chemistry 201 or 202-NYB or CHEM 206; cégep Physics 301 or 203-NYC or PHYS 206 and 226; cégep Mathematics 103 or 201-NYA or MATH 203; cégep Mathematics 203 or 201-NYB or MATH 205. A survey of the properties and reactions of: hydrogen; Group 1, lithium to cesium; and Group 2, beryllium to radium; including the theory of ionic bonding and structure. The descriptive chemistry of Group 13, boron to thallium; Group 14, carbon to lead; Group 15, nitrogen to bismuth; Group 16, sulphur to polonium; Group 17, the halogens; and Group 18 , the chemistry of the noble gases. Lectures and laboratory.

CHEM 271 Biochemistry I (3 credits)
Prerequisite: CHEM 221; CHEM 222 previously or concurrently. An introduction to the essentials
of biochemistry: protein structure, enzymology, carbohydrate metabolism, electron transport, integration and regulation of metabolism. Lectures, tutorials and laboratory.

## CHEM 298 Selected Topics in Chemistry

 (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## CHEM 312 Intermediate Analytical Chemistry (3 credits)

Prerequisite: CHEM 217; CHEM 218. A continuation of CHEM 217 and 218, with emphasis on instrumental methods of analysis. Emission spectroscopy; X-ray spectroscopy; voltammetry and polarography; amperometric titrations; coulometry and coulometric titrations, conductometry; chromatography with particular emphasis on gas chromatography, and high performance liquid chromatography. Laboratory is taken concurrently and provides experience in analytical techniques described in lectures. Lectures and laboratory.

## CHEM 324 Organic Chemistry III: Organic

 Reactions (3 credits)Prerequisite: CHEM 2२2, or equivalent; CHEM 235 previously or concurrently. A mechanistic survey of reactions of major synthetic utility. Determination of reaction mechanisms. Importance of reactive intermediates: carbocations, carbanions, radicals, and carbenes. Lectures and laboratory.

## CHEM 325 Organic Chemistry IV: Organic Structure and Stereochemistry (3 credits)

Prerequisite: CHEM 222, or equivalent. Organic structure and stereochemistry including the relationship of stereochemistry to physical properties and chemical reactivity. Determination of organic structure and stereochemistry by chemical and spectroscopic means. Identification of organic compounds (principally in the laboratory section). Lectures and laboratory.

CHEM 326 Natural Products (3 credits) Prerequisite: CHEM 324 previously or concurrently. The structures, mechanisms of action, and biosynthetic origins of biologically important compounds such as fatty acids, polyketides, terpenes, steroids, alkaloids, and beta-lactam antibiotics are discussed. The role of traditional organic chemistry in the development of modern biochemistry and biotechnology is illustrated with examples from medicine and agriculture. Lectures only.

## CHEM 327 Organic Chemistry of Polymers (3 credits)

Prerequisite: CHEM २२2, or equivalent. Introduction to the fundamental aspects of polymers and polymerization. Methods of preparation, reaction mechanisms of polymer synthesis
including condensation polymerization; addition polymerization: free radical, anionic, cationic; Ziegler-Natta (heterogeneous) polymerization. Lectures and problem sessions.

## CHEM 333 Introduction to Quantum Theory (3 credits)

Prerequisite: CHEM 234; CHEM 241. The course introduces students to the concept of quantum mechanics and the electronic structure of atoms and molecules. Topics include the origins and postulates of quantum theory, the Schrodinger equation and applications to simple systems such as the harmonic oscillator, rigid rotor and the hydrogen atom. The course looks at the quantum mechanical treatment of the chemical bond: molecular orbital theory, the description of electronic energy levels of simple molecules, the population of these levels and associated transition probabilities. Lectures only.

## CHEM 334 Physical Chemistry: Laboratory (3 credits)

Prerequisite: CHEM 235. A series of experiments illustrating modern techniques for the examination of solids, liquids, and gases. Some experiments may include the automated collection and computerized analysis of data. Laboratory only.

## CHEM 335 Biophysical Chemistry

 (3 credits)Prerequisite: CHEM 235, 271. This course examines physical techniques used to study the structure of biological macromolecules such as absorption, fluorescence and circular dichroism spectroscopy, mass spectrometry, x-ray crystallography, NMR spectroscopy, calorimetric and relaxation techniques. Lectures and laboratory.

## CHEM 341 Inorganic Chemistry III: The

 Transition Metals (3 credits)Prerequisite: CHEM 217; CHEM 218; CHEM 241; CHEM 242. Theories of bonding in transition metal complexes, including ligand field theory, applied to structure, physical properties, and reactivity of transition metal complexes: organometallic chemistry and catalysis. Metals in biological systems. Lectures and laboratory.

CHEM 375 Biochemistry II (3 credits) Prerequisite: CHEM 222; CHEM 271. A survey of selected pathways in intermediary metabolism, including their regulation and physiological significance, lipid, amino acid and nucleoside metabolism, cholesterol biosynthesis, urea cycle and the biochemistry of protein synthesis. Lectures and laboratory.

## CHEM 393 Spectroscopy and Structure of

 Organic Compounds (3 credits) Prerequisite: CHEM 218, 222. This course examines the identification of organic compounds using methods based on electronic, vibrational, nuclear magnetic resonance and mass spectroscopies. In each case, there is an introduction to the principles of the spectroscopy and adiscussion of how its spectra vary with structure. Particular emphasis is placed upon the UV-visible spectra of conjugated molecules; the identification of functional groups by IR spectroscopy; the use of NMR spectroscopy, including 2D methods, for the determination of stereochemistry; and the use of mass spectrometry for ascertaining molecular constitution. The use of computer simulation and information retrieval for structure determination is introduced. Lectures and laboratory. NOTE: Students who have received credit for CHEM 328 may not take this course for credit.

## CHEM 398 Selected Topics in Chemistry

 (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## CHEM 415 Analytical Separations

 (3 credits)Prerequisite: CHEM 312. High performance liquid separations on an analytical (non-preparative) scale are surveyed. Fundamental separation mechanisms and application of the techniques are discussed. Emphasis is placed on capillary electrophoretic separations of biologically relevant analytes which include peptides, proteins and nucleic acids. Lectures only. NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

## CHEM 419 Independent Study and Practicum ( 6 credits)

Prerequisite: Must have completed the 45-credit Core program, or equivalent, with a GPA of 2.00 (C) or better. In collaboration with and under the direction of a member of Faculty, the student carries out independent study and practical work on a problem chosen from the student's area of concentration. The student presents his or her work to the Department in the form of a scientific poster and submits a written report to the supervisor.
NOTE: During the academic session before the one in which this project is to be undertaken, the student must have obtained the consent of the Department, by consultation with the CHEM 419 coordinator, and must have also been accepted by a faculty supervisor. Independent study and practical work.

## CHEM 421 Physical Organic Chemistry

 (3 credits)Prerequisite: CHEM 324 or CHEM 325; CHEM 235. Determination of organic reaction mechanisms using kinetics, activation parameters, acid-base catalysis, Bronsted catalysis law, solvent effects, medium effects, isotope effects, substitutent effects, and linear free energy relationships. Lectures only.

CHEM 424 Organic Synthesis (3 credits)
Prerequisite: CHEM 324. This course is concerned with synthetic strategy and design. It provides an introduction to advanced synthetic
methods and reagents, involving heteroatoms such as sulphur, phosphorus, tin and selenium, as well as an overview of the uses of protecting groups in organic chemistry. The concept of retrosynthesis and a few asymmetric reactions are discussed using syntheses of natural products from the literature as examples.

## CHEM 431 Computational Chemistry for Chemists and Biochemists

 (3 credits)Prerequisite: CHEM 333 or permission of the Department. This course presents the concepts, tools, and techniques of modern computational chemistry, and provides a very broad overview of the various fields of application across chemistry and biochemistry. The course is divided into two parts: 1) Molecular structure, which covers molecular mechanics and elementary electronic structure theory of atoms and molecules; and 2) Chemical reactivity, which covers applications of quantum chemistry and molecular dynamics techniques to studies of chemical reactions. The applications discussed include organic molecules and their reactions, peptides and proteins, drug design, DNA, polymers, inorganics, materials and surfaces, atmospheric and gas-phase chemistry, and reactions in condensed phases. The course includes a practical component where students acquire extensive hands-on experience with commonly used computational chemistry computer software.

CHEM 445 Industrial Catalysis (3 credits) Prerequisite: CHEM 234, 235. Basic and recent concepts in catalysis are described with particular emphasis on heterogenous catalysis. The technical, economic and environmental aspects of industrial catalysis are covered. The processes to be studied are chosen from the petroleum industry, the natural gas and coal processing industry, and the production of thermoplastics and synthetic fibres. The course ends with a rapid survey of problems associated with the treatment of industrial pollutants and with catalytic converters. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

## CHEM 450 Research Project and Thesis

 (6 credits)Prerequisite: Sixty credits including the 45 -credit Core program, or equivalent and enrolment in Honours in Chemistry; or written permission of the Department. By departmental decision, such permission is only given if the student has a GPA of 3.00 or better, for all courses in this program. The student works on a research project in the student's area of concentration, selected in consultation with and conducted under the supervision of a faculty member of the Department. The student writes a thesis on the results and defends it before a departmental committee.
NOTE: During the academic session before the
one in which this project is to be undertaken, the student must have obtained the consent of the Department, by consultation with the CHEM 450 coordinator, and must have also been accepted by a faculty supervisor.

## CHEM 470 Environmental Biochemistry

 (3 credits)Prerequisite: CHEM 271, 375; BIOL 367; or permission of the Department. This course examines the biochemical effects of environmental stresses on organisms, and adaptations that allow organisms to face these stresses. Emphasis is placed on biochemical responses to toxic compounds such as aromatics, halogenated aliphatics, drugs, and heavy metals. Other topics may include adaptations to stresses such as temperature extremes, pathogens, and ionizing radiation. Applications to related biotechnological processes are also considered. NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

## CHEM 471 Enzyme Kinetics and <br> Mechanism (3 credits)

Prerequisite: CHEM 271. Steady-state kinetics, including the use of initial velocity studies and product inhibition to establish a kinetic mechanism; nonsteady-state kinetics, isotope effects, energy of activation, etc; detailed mechanisms of selected enzymes. Lectures only.

CHEM 472 Chemical Toxicology (3 credits) Prerequisite: CHEM 271. Introduction to the general principles of toxicology with emphasis on the toxic effects of chemicals in humans. Dose-response relationship, types and routes of exposure, absorption and disposition of toxic substances, toxicokinetics, types of toxic response, and factors affecting toxic response. Toxicity testing, risk assessment, and interpretation of toxicological data. Lectures only.

## CHEM 475 Protein Engineering and Design (3 credits)

This course will examine the principles behind protein design, how techniques of protein engineering are used, and the methods used to assess the properties of the proteins. Examples will include studies of protein stability and of structure-function relationships, design of catalytic antibodies and applications to drug design. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

## CHEM 477 Advanced Laboratory in Biochemistry (3 credits)

Prerequisite: CHEM 375; BIOL 368 previously or concurrently. Theory and practice of techniques in enzymology and protein chemistry, including steady-state and stopped-flow enzyme kinetics, ligand binding, immunological techniques, computer modelling, identification of groups at the active site. Lectures and laboratory.

## CHEM 478 Hormone Biochemistry

 (3 credits)Prerequisite: CHEM 375 . This course deals with an in-depth study of the vertebrate hormones and involves a study of the precise chemical structure and properties of each hormone, its biosynthesis and mode of secretion from the cell. The circulating form of the hormone is examined, as well as the nature of the hormone receptor. The cellular mechanism of action and the relationship of the hormone's action to the intact animal are investigated. Lectures only.

## CHEM 481 Bioinorganic Chemistry

 (3 credits)Prerequisite: CHEM 271; CHEM 241. Role of metals in biochemical systems. Essential trace elements, zinc enzymes, oxygen transport and storage, metalloproteins and biological electron transfer, structure-function relationships in heme enzymes, nitrogen fixation; model compounds for metalloproteins and metalloenzymes. Lectures only.

CHEM 493 Magnetic Resonance Spectroscopy (3 credits) Prerequisite: CHEM २२2, or equivalent. This course is designed to provide the background in magnetic resonance theory necessary to understand modern high-resolution NMR experiments and instrumentation. The basic theory in the introductory section also applies to electron spin resonance (ESR). Relaxation and through-bond and through-space interactions, and experiments to investigate them are considered. Spin manipulations and behaviour in multiple-pulse, Fourier transform NMR techniques used for common spectral editing and two-dimensional experiments are discussed. Lectures only.

CHEM 494 Mass Spectrometry (3 credits) Prerequisite: CHEM 235. Production and interpretation of mass spectra. Topics include: ionization methods (electron impact, chemical ionization and fast-atom bombardment); interpretation of mass spectra; introduction to quantitative analysis by mass spectrometry. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

## CHEM 495 Modern Spectroscopy

 (3 credits)Prerequisite: CHEM 333. This course demonstrates how quantum theory applies to the measurement of absorption and emission spectra of atoms and molecules. The course examines rotational, vibrational, and electronic spectroscopy. Photoelectron and related spectroscopies. Lasers and laser spectroscopy. Lectures and laboratory.

CHEM 498 Advanced Topics in Chemistry (3 credits)

CHEM 499 Advanced Topics in Chemistry (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.060 <br> CLASSICS, MODERN LANGUAGES AND LINGUISTICS 



## Programs

The Department of Classics, Modern Languages and Linguistics offers undergraduate programs leading to the BA degree in Classics, German, Italian, Spanish, and Linguistics.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
All these programs can normally be completed within the regular three-year university sessions.

## Classics

## 60 BA Honours in Classics

36 Honours Core consisting of:
9 Chosen from CLAS $211^{3}, 212^{3}, 320^{3}, 330^{3}$
6 CLAS $280^{6}$ or $290^{6}$
6 CLAS $381^{3}$ and $382^{3}$, or $391^{3}$ and $392^{3}$
3 Chosen from CLAS $230^{3}, 240^{3}, 242^{3}$, $341^{3}, 343^{3}$
3 CLAS $261^{3}$ or $262^{3}$
3 Chosen from CLAS $266^{3}, 267^{3}, 353^{3}$, $364^{3}, 365^{3}, 369^{3}$
6 CLAS 450 ${ }^{3}$, $451^{3}$
Concentration in Classical Languages and Literature
36 Honours Core (see above)
6 CLAS $280^{6}$ or $290^{6}$
6 CLAS $381^{3}$ and $382^{3}$, or $391^{3}$ and $392^{3}$
6 CLAS $410^{3}$ and $411^{3}$, or $420^{3}$ and $421^{3}$

6 LING $330^{6}, 431^{6}$, or other Linguistics courses chosen in consultation with the Department

Concentration in Classical Civilization
36 Honours Core (see above)
9 Chosen from CLAS $230^{3}, 240^{3}, 242^{3}$, $341^{3}, 343^{3}$
6 Chosen from CLAS $266^{3}, 364^{3}, 365^{3}$, $369^{3}, 370^{3}$
3 Chosen from CLAS $261^{3}, 262^{3}, 353^{3}$
6 Credits in either Classics or another subject chosen in consultation with the Department

## 42 BA Major in Classics

18 Major Core consisting of:
9 Chosen from CLAS $211^{3}, 212^{3}, 320^{3}, 330^{3}$
3 Chosen from CLAS $230^{3}, 240^{3}, 242^{3}$, $341^{3}, 343^{3}$

3 CLAS $261^{3}$ or $262^{3}$
3 Chosen from CLAS $266^{3}, 267^{3}, 353^{3}$, $364^{3}, 365^{3}, 369^{3}$

Concentration in Classical Languages and Literature
18 Major Core (see above)
6 CLAS $280^{6}$ or $290^{6}$
6 CLAS $381^{3}$ and $382^{3}$, or $391^{3}$ and $392^{3}$
6 CLAS $410^{3}$ and $411^{3}$, or $420^{3}$ and $421^{3}$
6 CLAS $280^{6}$ or $290^{6}$, or other Linguistics courses chosen in consultation with the Department

Concentration in Classical Civilization
18 Major Core (see above)
9 Chosen from CLAS $230^{3}, 240^{3}, 242^{3}$, $341^{3}, 343^{3}$
6 Chosen from CLAS $266^{3}, 267^{3}, 364^{3}$, $365^{3}, 369^{3}, 370^{3}$
3 Chosen from CLAS $261^{3}, 262^{3}, 353^{3}$
6 Credits in either Classics or another subject chosen in consultation with the Department

24 Minor in Classical Languages and Literature
12 CLAS $211^{3}, 212^{3}, 320^{3}, 330^{3}$
12 Chosen from $280^{6}, 290^{6}, 381^{3}, 382^{3}$, $391^{3}, 392^{3}$

24 Minor in Classical Civilization
6 Chosen from CLAS $211^{3}, 212^{3}, 320^{3}, 330^{3}$
6 Chosen from CLAS $230^{3}, 240^{3}, 242^{3}$, $341^{3}, 343^{3}$
12 Chosen from CLAS $261^{3}, 262^{3}, 266^{3}$, $267^{3}, 280^{6}, 290^{6}, 353^{3}$

24 Minor in Classical Archaeology
3 CLAS $266^{3}$
6 Chosen from CLAS $230^{3}, 240^{3}, 242^{3}$, $341^{3}, 343^{3}$
9 Chosen from CLAS $267^{3}, 364^{3}, 365^{3}, 369^{3}$, $370^{3}$
6 Credits in either Classics or another subject chosen in consultation with the Department

## German

60 BA Honours in German
12 GERM $240^{6}$, or $241^{3}$ and $242^{3}$; $256^{3}$, $257^{3}$
24 GERM $271^{3}, 301^{3}, 302^{3}, 306^{3}, 307^{3}$, $308^{3}, 365^{3}, 366^{3}$
21 Credits chosen from 400-level courses in German, of which at least six credits must be from GERM $405^{3}, 406^{3}, 461^{3}$, $462^{3}$
3 GERM $490^{3}$
NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

## 42 BA Major in German

12 GERM $240^{6}$, or $241^{3}$ and $242^{3}$; $256^{3}$, $257^{3}$

15 Credits chosen from GERM $271^{3}, 301^{3}$, $302^{3}, 306^{3}, 307^{3}, 308^{3}, 365^{3}, 366^{3}$
15 Credits chosen from 400-level courses in German, of which at least six credits must be from GERM $405^{3}, 406^{3}, 461^{3}$, $462^{3}$
NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

## 30 Minor in German

30 Credits in German of which at least 12 credits are to be chosen from GERM $301^{3}$ and above.
NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

## Italian

60 BA Honours in Italian
6 ITAL $240^{6}$, or ITAL $241^{3}$ and $242^{3}$, or ITAL $253^{3}$ and $254^{3}$
12 Credits chosen from ITAL $301^{3}, 302^{3}$, $310^{3}, 311^{3}, 365^{3}, 366^{3}$
39 Credits in an approved sequence chosen from all courses in Italian
3 ITAL $490^{3}$
NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

## 42 BA Major in Italian

6 ITAL $240^{6}$, or ITAL $241^{3}$ and $242^{3}$, or ITAL $253^{3}$ and $254^{3}$
12 Credits chosen from ITAL $301^{3}, 302^{3}$, $310^{3}, 311^{3}, 365^{3}, 366^{3}$
24 Credits in an approved sequence chosen from all courses in Italian
NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

## 30 Minor in Italian <br> 30 Credits in Italian

 NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.
## Spanish

| 60 | BA Honours in Spanish |
| ---: | :--- |
| 6 | SPAN $240^{6}$, or $244^{3}$ and $242^{3}$ |
| 12 | SPAN $301^{3^{3}}, 302^{3}, 304^{3}, 403^{3}$ |
| 3 | SPAN $362^{3}, 363^{3}, 365^{3^{3}}$ |
| 3 | SPAN $490^{3}$ (Honours Essay Tutorial) |
| 36 | Credits in an approved sequence |
|  | chosen from any of the following: |
|  | SPAN $310^{3}, 311^{3}, 320^{3}, 321^{3}, 362^{3}$ or |
|  | $363^{3}, 365^{3}, 398^{3}, 399^{6}, 406^{3}, 411^{3}, 412^{3}$, |
| $416^{3}, 417^{3}, 420^{3}, 421^{3}, 422^{3}, 423^{3}, 424^{3}$ |  |
| $430^{3}, 441^{3^{3}}, 442^{3^{3}}, 450^{3}, 461^{3}, 498^{3}, 499^{6^{6}}$ |  |

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

60 BA Specialization in Spanish
SPAN $240^{6}$, or $241^{3}$ and $242^{3}$
SPAN $256^{3}, 257^{3}$
21 SPAN $301^{3}, 302^{3}, 306^{3}, 307^{3}, 362^{3}$ or $363^{3}, 365^{3}, 370^{3}$
9 SPAN $401^{3}, 461^{3}, 464^{3}$
18 Credits chosen from: SPAN $310^{3}, 311^{3}$, $320^{3}, 321^{3}, 362^{3}$ or $363^{3}, 398^{3}, 498^{3}$; LING $200^{6}, 341^{3}$; or from courses in Hispanic literature at the 400 level, chosen in consultation with the Department.
NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

| 42 | BA Major in Spanish - Literature |
| ---: | :--- |
| 6 | SPAN $240^{6}$, or $241^{1}$ and $242^{3}$ |
| 9 | SPAN $301^{3}, 302^{3}, 304^{3}$ |
| 3 | SPAN $362^{3}, 363^{3}, 365^{3}$ |
| 24 | Credits in approved sequence chosen |
| from any of the following: |  |
|  | SPAN $310^{3}, 311^{3}, 320^{3}, 321^{3}, 398^{3}, 399^{6}$, |
| $403^{3}, 406^{3}, 411^{3}, 412^{3}, 416^{3}, 417^{3}, 420^{3}$, |  |
| $421^{3^{3}}, 422^{3}, 423^{3}, 424^{3}, 430^{3}, 441^{3}, 442^{3}$, |  |
| $450^{3}, 461^{3}, 498^{3}, 499^{6}$ |  |

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

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42 BA Major in Spanish - Language
    6 SPAN 240 , or 241 3}\mathrm{ and 2423
    6 SPAN 256',}25\mp@subsup{7}{}{3
    9 SPAN 301'3,3023, 370 
    12 SPAN 362 or 363 3},40\mp@subsup{1}{}{3},46\mp@subsup{1}{}{3},464\mp@subsup{4}{}{3
    9 Credits in approved sequence chosen
        from any of the following:
        SPAN 306'3,307 3},31\mp@subsup{0}{}{3},31\mp@subsup{1}{}{3},32\mp@subsup{0}{}{3},32\mp@subsup{1}{}{3}
        362 or 363 ' , 365'; LING 2006, 341 }\mp@subsup{}{}{3
NOTE: Upon consultation with the Department,
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advanced students may not be required to take any courses at the 200 level.

## 30 Minor in Spanish

30 Credits in Spanish chosen in consultation with the Department
NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

## Linguistics

## 60 BA Honours in Linguistics

A student entering an Honours program in Linguistics will normally take the following courses:
18 LING $200^{6}, 312^{6}, 372^{3}, 373^{3}$
18 LING $400^{3}, 401^{3}, 421^{6}, 431^{6}$
12 LING credits chosen at the 300 and 400 level
12 LING credits, or 12 credits chosen in consultation with the Department from the following: Latin, Greek, Russian, German, Spanish, Italian, French, English, Portuguese, TESL, Sociology, Psychology, Philosophy

42 BA Major in Linguistics
15 LING $200^{6}, 312^{6}, 372^{3}$
21 LING credits chosen in consultation with the Department at the 300 and 400 level
6 Credits in either Linguistics or another subject chosen in consultation with the Department

30 Minor in Linguistics
6 LING $200^{6}$
24 Credits in Linguistics

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## PROGRAM COURSES:

## Classics

CLAS 211 Greek Literature (3 credits) An introduction to the literature of ancient Greece, this course focuses on Homer and the epic cycle, the Homeric hymns, Hesiod and lyric poetry, tragedy and comedy. The texts are read in English translation.

CLAS 212 Roman Literature (3 credits) An introduction to the major authors of the Roman world, this course focuses on Catullus, Virgil, Horace, Ovid and Lucretius; works of the dramatists, orators and satirists may also be included. The texts are read in English translation.

CLAS 230 (also listed as HIST 219) Ancient Near East (3 credits)
A political, social, economic, and intellectual
history of the ancient Near East, this course surveys the period from the origins of civilization in the middle of the fourth millennium to Alexander the Great's conquest of the Persian Empire in the latter part of the fourth century B.C. NOTE: Students who have received credit for HIST 219 may not take this course for credit.

CLAS 240 (also listed as HIST 223) Greek History from the Bronze Age to Alexander (3 credits)
This course offers a political, social, economic, and cultural history of Greece from the MinoanMycenaean period in the second millennium to the end of Classical Greek civilization in the fourth century B.C., with special emphasis placed upon Athens.
NOTE: Students who have received credit for HIST 223 may not take this course for credit.

CLAS 242 (also listed as HIST 225) History of the Roman Republic (3 credits)
This course offers a political, social, economic, and cultural history of Rome from the city's origins to the establishment of the Roman Empire under the Emperor Augustus.
NOTE: Students who have received credit for HIST 225 may not take this course for credit.

CLAS 261 Greek Mythology (3 credits) A survey of the myths of ancient Greece and their characters - deities, heroes, mortals and monsters, this course examines the significance of the myths within their own time and their relevance for the modern world. Both literary and visual sources are used.

## CLAS 262 Mythology of the Ancient Mediterranean (3 credits)

An examination of the common mythological themes of the ancient Mediterranean, this course focuses on the events, the characters, and the significance of recurrent elements as found in the myths of Mesopotamia, Egypt, Greece, and Rome.

## CLAS 266 An Introduction to Classical

 Archaeology (3 credits)This course provides a general overview of the material remains of ancient Greece from the Bronze Age to the Hellenistic period. It addresses the function, context, dating, and meaning of artifacts, as well as methods of analysis. NOTE: Students who have received credit for CLAZ 266 may not take this course for credit.

## CLAS 267 The Archaeology of the Greek

 Bronze Age (3 credits)The Bronze Age in Mainland Greece, Crete, and the Greek Islands.

## CLAS 280 Introductory Ancient Greek

 ( 6 credits)The fundamentals of Greek grammar are presented in a course designed to enable the student to read the ancient authors as soon as possible.

CLAS 290 Introductory Latin (6 credits) The fundamentals of Latin grammar are presented in a course designed to enable the student to read the principal Roman authors as soon as possible.

CLAS 298 Selected Topics in Classics (3 credits)
CLAS 299 Selected Topics in Classics ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

CLAS 320 The Heroic Epics of Greece and Rome (3 credits)
Homer's Iliad and Odyssey and Virgil's Aeneid
are considered in depth, with some attention given to other examples of epic, such as the Argonautica of Apollonius of Rhodes and Lucan's Pharsalia. Topics include epic as a genre, the nature of oral poetry, ethical values presented and the epic tradition and innovation. The texts are read in English translation.

CLAS 330 Greek Drama ( 3 credits) Designed as an introduction to Greek drama from the origins of tragedy in the sixth century to New Comedy, this course consists of a detailed study of selected plays of Aeschylus, Sophocles, Euripides, Aristophanes and Menander. Also considered are Aristotle's Poetics and production techniques of the Greek theatre. The texts are read in English translation.

CLAS 341 (also listed as HIST 323) Greek History from Alexander to the Roman Conquest (3 credits)
A political, social, economic, and cultural history of the Greek world from Alexander the Great to the Roman conquest of Greece in 146 B.C.
NOTE: Students who have received credit for CLAS 241/HIST 224 or HIST 323 may not take this course for credit.

CLAS 343 (also listed as HIST 327) History of the Roman Empire (3 credits)
This course offers a political, social, economic, and cultural history of the Roman Empire from Augustus to the end of the Roman Empire in the West.
NOTE: Students who have received credit for CLAS 243/HIST 226 or HIST 327 may not take this course for credit.

## CLAS 353 Representations of Women in Ancient Greece and Rome (3 credits)

The ancient Greek and Roman representations of women are examined within their historical and cultural contexts. Focus is placed on the changing social roles, status and images of women in antiquity. Both visual and literary sources are used.

## CLAS 364 Classical Greek Art and Archaeology (3 credits)

An exploration of the monuments and artifacts of Classical Greece, ca. 680 to 380 B.C., this course concentrates on architecture, sculpture, vase painting, artistic production and methods of interpretation.

## CLAS 365 Art and Archaeology of the Hellenistic Age (3 credits)

An investigation of the art and archaeology of the Hellenistic age from the death of Alexander in 323 to the mid-first century B.C., this course examines architecture, sculpture, mosaics, wall painting and the minor arts; emphasis is on the Roman influence on Greek art of the period.

## CLAS 369 Roman Art and Archaeology

 (3 credits)An introduction to the artifacts and monuments of Roman civilization from the sixth century B.C. through the Empire (third century A.D.), this course examines artistic styles, techniques, function, iconography and interpretation.

CLAS 370 Practicum in Archaeology (3 credits)
Prerequisite: Permission of the Department. This course is designed to give the student on-site fieldwork experience in either survey or excavation work. At least one month in the field is required.

CLAS 381 Reading Greek Prose (3 credits) Prerequisite: CLAS 280 or equivalent. Prose works of authors such as Herodotus, Xenophon and Plato are read in the original Greek text. Attention is given to further study of grammatical and syntactical structures of the language. NOTE: Students who have received credit for CLAS 380 may not take this course for credit.

## CLAS 382 Reading Greek Poetry

 (3 credits)Prerequisite: CLAS 280 or equivalent. Selected works of the ancient poets are read in the original Greek text, with emphasis on Homer and Euripides. Attention is given to further study of the grammatical and syntactical structures of the language.
NOTE: Students who have received credit for CLAS 380 may not take this course for credit.

CLAS 391 Reading Latin Prose (3 credits) Prerequisite: CLAS 290 or equivalent. Prose works of authors such as Caesar, Cornelius Nepos, Cicero and Pliny are read in the original Latin text. Attention is given to further study of grammatical and syntactical structures of the language.
NOTE: Students who have received credit for CLAS 390 may not take this course for credit.

CLAS 392 Reading Latin Poetry (3 credits) Prerequisite: CLAS 290 or equivalent. Selected works of the Roman poets are read in the original Latin text, with emphasis on Catullus, Ovid, Martial and Petronius. Attention is given to further study of grammatical and syntactical structures of the language.
NOTE: Students who have received credit for CLAS 390 may not take this course for credit.

CLAS 398 Selected Topics in Classics (3 credits)

CLAS 399 Selected Topics in Classics ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## CLAS 410 Advanced Greek Prose

(3 credits)
Prerequisite: CLAS 381 and 382, or equivalent. Works of the Greek historians, philosophers and orators are studied in depth. While authors read vary from year to year, the primary focus is on Herodotus, Thucydides, Plato or Demosthenes.

## CLAS 411 Advanced Greek Poetry (3 credits)

Prerequisite: CLAS 381 and 382, or equivalent. Works of Greek epic, lyric or dramatic poetry are studied in depth. While authors read vary from year to year, the primary focus is on Homer, Aeschylus, Sophocles, Euripides or Pindar.

## CLAS 420 Advanced Latin Prose

 (3 credits)Prerequisite: CLAS 391 and 392, or equivalent. Works of the Roman historians, philosophers and orators are studied in depth. While authors read vary from year to year, the primary focus is on Cicero, Sallust, Livy or Tacitus.

CLAS 421 Advanced Latin Poetry (3 credits)
Prerequisite: CLAS 391 and 392, or equivalent. Works of the Roman poets are studied in depth. While authors read vary from year to year, the primary focus is on Virgil, Ovid, Horace, Juvenal or Lucretius.

CLAS 450 Honours Seminar (3 credits) Prerequisite: Permission of the Department. The seminars focus on oral presentations by students. Topics vary from year to year.

CLAS 451 Honours Thesis (3 credits)
Prerequisite: Permission of the Department. The student works with an individual faculty member in a particular area of archaeology, history or philology to produce an extensive research paper.

## CLAS 498 Advanced Topics in Classics

 (3 credits)CLAS 499 Advanced Topics in Classics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## German

THE DEPARTMENT RESERVES THE RIGHT TO TRANSFER A STUDENT TO A HIGHER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE
FOR THE EXTENT OF HIS OR HER
KNOWLEDGE OF THE LANGUAGE.
GERM 200 Introductory German: Intensive Course (6 credits)
This course provides a comprehensive introduc-
tion to the German language, completing the fundamental aspects of grammar in one term. This course covers the same material as GERM 201 and 202.
NOTE: Students who have received credit for GERM 201 or 202 may not take this course for credit.

## GERM 201 Introductory German I

 (3 credits)This course provides an introduction to the basic elements of German for the student with no knowledge of the language.
NOTE: Students who have received credit for GERM 200 may not take this course for credit.

## GERM 202 Introductory German II

 (3 credits)Prerequisite: GERM 201. The objective of this course is to complete the study of fundamental aspects of German grammar.
NOTE: Students who have received credit for GERM 200 may not take this course for credit.

GERM 240 Intermediate German: Intensive Course ( 6 credits)
Prerequisite: GERM 200 or 202. This course provides a review of German grammar in a single term and furnishes additional details not dealt with in the introductory courses. It covers the same material as GERM 241 and 242. Practice is provided through readings, discussions, and composition.
NOTE: Students who have received credit for GERM 241 or 242 may not take this course for credit.

## GERM 241 Intermediate German I

 (3 credits)Prerequisite: GERM 200 or 202. This course provides a review of German grammar and deals with additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition. NOTE: Students who have received credit for GERM 240 may not take this course for credit.

## GERM 242 Intermediate German II

 (3 credits)Prerequisite: GERM 241. This course is a continuation of GERM 241. It completes the review of the grammar and includes additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.
NOTE: Students who have received credit for GERM 240 may not take this course for credit.

UNLESS OTHERWISE INDICATED, ALL COURSES WITH NUMBERS 256 AND HIGHER WILL BE CONDUCTED IN GERMAN.

GERM 256 Translation I (3 credits)
Prerequisite: GERM 200 or 202. This course is designed to teach students how to read and translate German texts into English. Basic
problems of German grammar will be reviewed. NOTE: Students who have received credit for GERM 255 may not take this course for credit.

GERM 257 Translation II (3 credits) Prerequisite: GERM 256 . This course is a continuation of GERM 256 and deals with more complex problems of translation.
NOTE: Students who have received credit for GERM 255 may not take this course for credit.

## GERM 271 German Composition and Conversation (3 credits)

Prerequisite: GERM 200 or 202. This course is designed to broaden the command of oral and written German at the intermediate level. This course is complementary to GERM 240 and 241 and will prepare students for the complexities of advanced German.
NOTE: Students who have received credit for GERM 270 may not take this course for credit.

GERM 298 Selected Topics in German (3 credits)

GERM 299 Selected Topics in German (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

GERM 301 Advanced German I (3 credits) Prerequisite: GERM 240 or 242, and 256. This course is intended to give students increased fluency in and a firmer command of the German language. The course focuses on advanced grammatical problems, syntactical structures, and the use of idioms in spoken and written German.
NOTE: Students who have received credit for GERM 300 may not take this course for credit.

GERM 302 Advanced German II (3 credits) Prerequisite: GERM 301. This course is a continuation of GERM 301, and deals with more complex problems of idiom and usage.
NOTE: Students who have received credit for GERM 300 may not take this course for credit.

GERM 306 Translation III (3 credits)
Prerequisite: GERM 240 or 242, and 257. This course deals with problems and techniques of translation into German, specialized vocabulary, and common German usage.
NOTE: Students who have received credit for GERM 305 may not take this course for credit.

GERM 307 Translation IV (3 credits)
Prerequisite: GERM 306. This course is a continuation of GERM 306. The translation of a variety of texts concentrates on linguistic analysis and on the translation of idiomatic expressions. NOTE: Students who have received credit for GERM 305 may not take this course for credit.

## GERM 308 German for Business

Purposes (3 credits)
Prerequisite: GERM 240 or 242, and 256. This course is designed to familiarize students with business terminology, correspondence and official usage in German.

GERM 365 German Civilization I (3 credits) Prerequisite: GERM 240 or 242, and 256. This course is designed to acquaint students with the intellectual and cultural history of Germanspeaking nations.
NOTE: Students who have received credit for GERM 360 may not take this course for credit.

## GERM 366 German Civilization II

 (3 credits)Prerequisite: GERM 240 or 242, and 256. This course is designed to acquaint students with the cultural diversity of Germany, Austria, and Switzerland, with emphasis on developments since World War II.
NOTE: Students who have received credit for GERM 360 may not take this course for credit.

GERM 398 Selected Topics in German (3 credits)

GERM 399 Selected Topics in German (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## GERM 405 Early German Literature I

 (3 credits)Prerequisite: GERM 240 or 242, and 257. This course deals with German literature from its beginning of Germanic and Old High German literature through Middle High German literature, to the end of the Middle Ages, around 1500. Students will write a research paper. NOTE: Students who have received credit for GERM 400 or 452 may not take this course for credit.

GERM 406 Early German Literature II (3 credits)
Prerequisite: GERM 240 or 242, and 257. This course deals with German literature from 1500 to 1850: Humanism, Renaissance, Baroque, Enlightenment, to the Classical Period. Students will write a research paper.
NOTE: Students who have received credit for GERM 400 or 452 may not take this course for credit.

## GERM 411 Literature of the Classic

 Period I (3 credits)Prerequisite: GERM 240 or 242, and 257. This course offers a study of German literature of the late eighteenth century with emphasis on Enlightenment and Sturm und Drang.
NOTE: Students who have received credit for GERM 410 may not take this course for credit.

## GERM 412 Literature of the Classic

 Period II (3 credits)Prerequisite: GERM 240 or 242, and 257. This
course offers in-depth study of the important Classic writers of German literature, such as Goethe and Schiller.
NOTE: Students who have received credit for GERM 410 may not take this course for credit.

## GERM 416 Literature of the Romantic Period (3 credits)

Prerequisite: GERM 240 or 242, and 257. This course offers a study of the literature of the German Romantic period.
NOTE: Students who have received credit for GERM 415 may not take this course for credit.

## GERM 421 German Literature of the

 Nineteenth Century (3 credits)Prerequisite: GERM 240 or 242 , and 257. This course offers a study of the German literature of the nineteenth century: post-Romanticism, Realism, and Naturalism.
NOTE: Students who have received credit for GERM 420 may not take this course for credit.

## GERM 426 German Literature from 1900

 to 1920 (3 credits)Prerequisite: GERM 240 or 242, and 257. This course offers a study of German literature from the fin de siècle to the post-World War I period. Impressionism, Expressionism, Dadaism, and the traditional genres will be discussed.
NOTE: Students who have received credit for GERM 425 may not take this course for credit.

## GERM 427 German Literature from 1920

 to 1950 (3 credits)Prerequisite: GERM 240 or 242, and 257. This course offers a study of German literature from 1920 to 1950. Works of the Weimar Republic, Hitler's Germany, the German emigration, and reaction to World War II are discussed.
NOTE: Students who have received credit for GERM 425 may not take this course for credit.

## GERM 431 German Literature Since 1950:

 The Novel ( 3 credits)Prerequisite: GERM 240 or 242, and 257. This course presents German literature since World War II, with emphasis on the novel.
NOTE: Students who have received credit for GERM 430 may not take this course for credit.

GERM 432 German Literature Since 1950: Theatre and Poetry ( 3 credits)
Prerequisite: GERM 240 or 242, and 257. This course offers a study of German literature since World War II, with emphasis on the theatre and poetry.
NOTE: Students who have received credit for GERM 430 may not take this course for credit.

GERM 436 The German Theatre ( 3 credits) Prerequisite: GERM 240 or 242, and 257. This course offers a study of some of the representa-
tive works of German theatre from 1400 to 1950. NOTE: Students who have received credit for GERM 435 may not take this course for credit.

## GERM 461 History of the German <br> Language I (3 credits)

Prerequisite: GERM 240 or 242 , and 257. This course deals with the linguistic and historic development of the German language from its IndoEuropean roots to the end of the Middle Ages. NOTE: Students who have received credit for GERM 465 may not take this course for credit.

## GERM 462 History of the German Language II (3 credits)

Prerequisite: GERM 240 or 242 , and 257. This course deals with the linguistic and historic development of the German language from the Middle Ages to today. It also covers the development of the various German dialects. NOTE: Students who have received credit for GERM 465 may not take this course for credit.

GERM 480 Tutorial I (3 credits)
Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.
GERM 481 Tutorial II (3 credits)
Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 482 Tutorial III (3 credits)
Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 483 Tutorial IV (3 credits)
Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

## GERM 490 Honours Essay Tutorial

 (3 credits)Prerequisite: Honours status. This course provides the Honours candidate with the opportunity to prepare an extensive research essay, on a topic to be chosen by the candidate with the approval of a supervising member of the faculty of the German section.

## GERM 498 Advanced Topics in German (3 credits) <br> GERM 499 Advanced Topics in German ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

Italian
THE DEPARTMENT RESERVES THE RIGHT TO
TRANSFER A STUDENT TO A HIGHER-LEVEL
LANGUAGE COURSE IF IT IS DEEMED THAT
THE COURSE FOR WHICH THE STUDENT
HAS REGISTERED IS NOT APPROPRIATE
FOR THE EXTENT OF HIS OR HER
KNOWLEDGE OF THE LANGUAGE.
ITAL 200 Introductory Italian: Intensive Course ( 6 credits)
This course provides a comprehensive introduction to the Italian language, completing the fundamental aspects of grammar in one term. This course covers the same material as ITAL 201 and 202.
NOTE: Students who have received credit for ITAL 201 or 202 or 210 or 211 or 252 or 253 or 254 may not take this course for credit.

ITAL 201 Introductory Italian I (3 credits)
This course provides an introduction to the basic elements of Italian for the student with no knowledge of the language.
NOTE: Students who have received credit for ITAL 200 or 210 or 211 or 252 or 253 or 254 may not take this course for credit.

ITAL 202 Introductory Italian II (3 credits) Prerequisite: ITAL 201. The objective is to complete the study of fundamental aspects of Italian grammar.
NOTE: Students who have received credit for ITAL 200 or 210 or 211 or 252 or 253 or 254 may not take this course for credit.

## ITAL 240 Intermediate Italian: Intensive Course ( 6 credits)

Prerequisite: ITAL 200 or 202. This course provides a review of Italian grammar in one term and deals with additional details not covered in the introductory course. It covers the same material as ITAL 241 and 242 . Practice is provided through readings, discussions, and composition. NOTE: Students who have received credit for ITAL 241 or 242 or 250 or 251 or 252 or 253 or 254 may not take this course for credit.

ITAL 241 Intermediate Italian I (3 credits) Prerequisite: ITAL 200 or 202 . This course provides a review of Italian grammar and deals with additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition. NOTE: Students who have received credit for ITAL 240 or 250 or 251 or 252 or 253 or 254 may not take this course for credit.

ITAL 242 Intermediate Italian II (3 credits) Prerequisite: ITAL 241. This course is a continuation of ITAL 241. It completes the review of the grammar and provides additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.
NOTE: Students who have received credit for

ITAL 240 or 250 or 251 or 252 or 253 or 254 may not take this course for credit.

UNLESS OTHERWISE INDICATED, ALL COURSES WITH NUMBERS 253 AND HIGHER WILL BE CONDUCTED IN ITALIAN.

## ITAL 253 Italian for Dialect Speakers I

 (3 credits)This course is designed for speakers of Italian dialects who wish to acquire training in standard Italian. Emphasis is placed on grammar, lexicon, sentence structure, and other fundamentals of good usage. Both oral and written expression are emphasized.
NOTE: Students who have received credit for ITAL 200 or 201 or 202 or 240 or 241 or 242 or 252 may not take this course for credit.

## ITAL 254 Italian for Dialect Speakers II (3 credits)

Prerequisite: ITAL 253. This course is a continuation of ITAL 253. It presents additional material not covered in ITAL 253 and provides practice through short readings, discussions, and composition.
NOTE: Students who have received credit for ITAL 200 or 201 or 202 or 240 or 241 or 242 or 252 may not take this course for credit.

ITAL 256 Translation I (3 credits) Prerequisite: ITAL 200 or 202 or 254. This course provides a review of the Italian grammar and introduces students to the fundamentals of translation.
NOTE: Students who have received credit for ITAL 255 may not take this course for credit.

ITAL 257 Translation II (3 credits) Prerequisite: ITAL 256. This course continues the review of Italian grammar begun in ITAL 256 and uses selected short texts for translation into Italian.
NOTE: Students who have received credit for ITAL 255 may not take this course for credit.

## ITAL 298 Selected Topics in Italian (3 credits)

ITAL 299 Selected Topics in Italian (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ITAL 301 Advanced Grammar and Composition I (3 credits)
Prerequisite: ITAL 240 or 242 or 254 . This course is intended to give the student increased fluency in and a firmer command of the language.

ITAL 302 Advanced Grammar and Composition II (3 credits)
Prerequisite: ITAL 301. This course is a continuation of ITAL 301. It provides students with further practice in advanced grammar and composition.

ITAL 306
Advanced Translation I
(3 credits)
Prerequisite: ITAL 257. This course deals with idiomatic Italian usage and provides practice by means of translations into Italian of published material on a variety of topics.

## ITAL 307 Advanced Translation II

 (3 credits)Prerequisite: ITAL 306. This course is a continuation of ITAL 306. It deals with advanced problems and techniques of translation from Italian and into Italian.

ITAL 308 Italian for Business (3 credits) Prerequisite: ITAL 240 or 242 or 254 . This course is designed to give intermediate-advanced level students a solid foundation in business vocabulary, correspondence, and basic business practices, as well as the cultural concepts necessary to enable them to express themselves in the Italian-speaking business world.
NOTE: Students who have received credit for this topic under an ITAL 298 number may not take this course for credit.

## ITAL 310 Survey of Italian Literature I (3 credits)

Prerequisite: ITAL 240 or 242 or 254 . This course examines the major authors and trends of Italian literature from its origins to the end of the sixteenth century.

ITAL 311 Survey of Italian Literature II (3 credits)
Prerequisite: ITAL 240 or 242 or 254 . This course examines the major authors and trends of Italian literature from the beginning of the seventeenth century to the present.

ITAL 365 Italian Civilization I (3 credits) Prerequisite: ITAL 240 or 242 or 254 . This course provides a survey of Italy's cultural and scientific achievements until the end of the sixteenth century. Attention is given to Italy's social, political, and economic life.

ITAL 366 Italian Civilization II (3 credits) Prerequisite: ITAL 240 or 242 or 254. This course provides a survey of Italy's cultural and scientific achievements from the beginning of the seventeenth century to the present day. Attention is given to Italy's social, political, and economic life.

ITAL 398 Selected Topics in Italian (3 credits)

ITAL 399
Selected Topics in Italian (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ITAL 415 Dante and the Middle Ages (3 credits)
Prerequisite: ITAL 310 or 365. In this course selected passages of the Vita nuova, the

Monarchia, and other earlier works are studied. Dante's contributions to the formation of the Italian language, literature, and culture are considered in their historical, social, and political context.

ITAL 416 Dante: Divina Commedia (3 credits)
Prerequisite: ITAL 310 or 365 . This course undertakes an analysis of selected cantos of the Divina Commedia as a synthesis of medieval culture.

ITAL 422 Petrarch and Boccaccio (3 credits)
Prerequisite: ITAL 310 or 365. This course examines the origin and evolution of the early Italian novella. Petrarch and Boccaccio are studied as forerunners of humanism; emphasis is placed on Petrarch's Canzoniere and Boccaccio's Decameron.
NOTE: Students who have received credit for ITAL 420 or 421 may not take this course for credit.

ITAL 427 Italian Humanism and the Renaissance (3 credits)
Prerequisite: ITAL 310 or 365 . This course deals with the rise of humanism and analyses the Renaissance as a historical and cultural concept. References are made to the social, historical, and artistic trends in fifteenth- and early sixteenth-century Italy. Emphasis is on representative works of Alberti, Valla, Leonardo da Vinci, Pico della Mirandola and Machiavelli. NOTE: Students who have received credit for ITAL 425 or 430 may not take this course for credit.

ITAL 434 The Epic Tradition in Italy (3 credits)
Prerequisite: ITAL 310 or 365 . This course explores the nature and evolution of the chivalresque genre in Italy, mainly within the context of the fifteenth and sixteenth centuries, and with special emphasis on Ariosto and Tasso.
NOTE: Students who have received credit for ITAL 432 or 433 may not take this course for credit.

ITAL 435 The Baroque Age in Italy (3 credits)
Prerequisite: ITAL 311 or 366. This course presents a study of the Baroque as a cultural concept, and deals with representative literary, historical, artistic, and scientific works from such figures as Marino, Sarpi, Campanella, Galileo, and Bernini.

## ITAL 436 The Age of Enlightenment in Italy (3 credits)

Prerequisite: ITAL 311 or 366 . This course examines the Enlightenment as a cultural concept, and provides a study of representative texts of such authors as Goldoni, Vico, Parini, and Beccaria.

ITAL 439 Romanticism in Italy (3 credits) Prerequisite: ITAL 311 or 366. This course examines the concept of Romanticism in Italy and its relation to Risorgimento. Emphasis is on representative works of Foscolo, Manzoni, and Leopardi. References are made to the role of leading political figures of the period.

## ITAL 443 Post-unification Italian Culture: From Verismo to Futurism

 (3 credits)Prerequisite: ITAL 311 or 366 . This course provides a study of the debate on the nature of Realism and the avant-garde in Italy in the late nineteenth and early twentieth centuries. Readings are taken from such authors as Verga, Carducci, D'Annunzio and Marinetti.

## ITAL 445 Literature and Culture in

 Fascist Italy (3 credits)Prerequisite: ITAL 311 or 366 . This course explores the literary trends in Italy between the first and second World Wars within a historical and political context. It provides a study of representative works of such figures as Svevo, Pirandello, and Montale. Leading critical thinkers such as Croce and Gramsci are taken into consideration.

## ITAL 446 Cultural Expressions in Italy from Neo-Realism to the Present (3 credits)

Prerequisite: ITAL 311 or 366 . This course examines the debate on Neo-realism and looks at literary and cinematographic expressions. It also deals with the Neo-avanguardia movement and questions of gender and post-modernism. Emphasis is on Calvino, Sciascia, Fellini, Antonioni, and Eco. References are also made to the social and political reality of contemporary Italy.

ITAL $450 \quad$ Feminist Discourse in Italy (3 credits)
Prerequisite: ITAL 311 or 366 . This course studies the question of gender as a concept and traces its presence within the Italian cultural tradition from the Renaissance to the present. Representative works of figures such as Franco, Marinelli, de Fonseca Pimentel, Deledda, Aleramo, and Maraini are studied

## ITAL 461 History of the Italian

 Language I (3 credits)Prerequisite: ITAL 301. This course examines the history of the Italian language from its origins to the end of the sixteenth century through the study of representative texts. Attention is given to other Romance languages.

## ITAL 462 History of the Italian

 Language II (3 credits)Prerequisite: ITAL 301. This course examines the history of the Italian language from the beginning of the seventeenth century to the present day through the study of representative texts. Attention is given to other Romance languages.

ITAL $480 \quad$ Tutorial I (3 credits) Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

## ITAL 481 Tutorial II (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

## ITAL 482 Tutorial III (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

## ITAL 483 Tutorial IV (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

## ITAL 490 Honours Essay Tutorial

 (3 credits)Prerequisite: Honours status. This course provides the Honours candidate with the opportunity to prepare an extensive research essay, on a topic to be chosen by the candidate with the approval of a supervising member of the faculty of the Italian section.

## ITAL 498 Advanced Topics in Italian

 (3 credits)ITAL 499
Advanced Topics in Italian (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## Spanish

THE DEPARTMENT RESERVES THE RIGHT TO TRANSFER A STUDENT TO A HIGHER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE FOR THE EXTENT OF HIS OR HER KNOWLEDGE OF THE LANGUAGE.

## SPAN 200 Introductory Spanish:

 Intensive Course (6 credits)This course provides a comprehensive introduction to the Spanish language, completing the fundamental aspects of grammar in one term.

This course covers the same material as SPAN 201 and 202.
NOTE: Students who have received credit for SPAN 201 or 202 or 210 or 211 may not take this course for credit.

## SPAN 201 Introductory Spanish I

 (3 credits)This course provides an introduction to the basic elements of Spanish for the student with no knowledge of the language.
NOTE: Students who have received credit for SPAN 200 or 210 or 211 may not take this course for credit.

## SPAN 202 Introductory Spanish II

 (3 credits)Prerequisite: SPAN 201. The objective of this course is to complete the study of fundamental aspects of Spanish grammar.
NOTE: Students who have received credit for SPAN 200 or 210 or 211 may not take this course for credit.

UNLESS OTHERWISE INDICATED, ALL COURSES WITH NUMBERS 240 AND HIGHER WILL BE CONDUCTED IN SPANISH.

## SPAN 240 Intermediate Spanish: Intensive Course (6 credits)

Prerequisite: SPAN 200 or 202. This course provides a review of Spanish grammar in a single term and furnishes additional details not dealt with in the introductory courses. It covers the same material as SPAN 241 and 242. Practice is provided through readings, discussions, and composition.
NOTE: Students who have received credit for SPAN 241 or 242 or 250 or 251 may not take this course for credit.

## SPAN 241 Intermediate Spanish I

(3 credits)
Prerequisite: SPAN 200 or 202. This course provides a review of Spanish grammar and deals with additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition. NOTE: Students who have received credit for SPAN 240 or 250 or 251 may not take this course for credit.

## SPAN 242 Intermediate Spanish II

 (3 credits)Prerequisite: SPAN 241. This course is a continuation of SPAN 241. It completes the review of the grammar and includes additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.
NOTE: Students who have received credit for SPAN 240 or 250 or 251 may not take this course for credit.

SPAN 256 Translation I (3 credits) Prerequisite: SPAN 200 or 202. This course provides a review of Spanish grammar and
introduces students to the principles of translation. NOTE: Students who have received credit for SPAN 255 may not take this course for credit.

SPAN 257 Translation II (3 credits) Prerequisite: SPAN 256. This course continues the review of Spanish grammar begun in SPAN 256 and uses selected short texts for translation into Spanish.
NOTE: Students who have received credit for SPAN 255 may not take this course for credit.

SPAN 298 Special Topics in Spanish (3 credits)

SPAN 299 Special Topics in Spanish ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## SPAN 301 Advanced Grammar and Composition I (3 credits)

Prerequisite: SPAN 240 or 242. This course is designed to help students understand some advanced aspects of Spanish grammar and to provide practice in the correct and effective writing of Spanish.

## SPAN 302 Advanced Grammar and Composition II (3 credits)

 Prerequisite: SPAN 301. This course continues the study of advanced aspects of Spanish grammar and provides practice in the correct and effective writing of Spanish by means of types of composition such as summary, description, narration, argumentation, and essay.
## SPAN 304 Introduction to the Study of Hispanic Literature (3 credits)

Prerequisite: SPAN 240 or 242. This course introduces students to fundamental concepts necessary for the study of Hispanic literature. It deals with the relation between literature and other disciplines and presents some basic tools and techniques of research and criticism as related to Hispanic literature. Students are encouraged to take this course concurrently with SPAN 310 or 311 or 320 or 321 .
NOTE: Students who have received credit for this topic under a SPAN 298 number may not take this course for credit.

## SPAN 306 Advanced Translation I

 (3 credits)Prerequisite: SPAN 257. This course deals with idiomatic Spanish usage and provides practice by means of a number of translations into Spanish of published material on a variety of topics.
NOTE: Students who have received credit for SPAN 305 may not take this course for credit.

SPAN 307 Advanced Translation II (3 credits)
Prerequisite: SPAN 306. This course continues
the practice of idiomatic Spanish through the translation into Spanish of published material on a variety of topics. Special attention is given to texts from the world of business.
NOTE: Students who have received credit for SPAN 305 may not take this course for credit.

## SPAN 310 Survey of Spanish Literature I (3 credits)

Prerequisite: SPAN 240 or 242. This course provides a panoramic view of Spanish literature as produced in the Peninsula from the twelth to the seventeenth century.

## SPAN 311 Survey of Spanish Literature II

 (3 credits)Prerequisite: SPAN 240 or 242. This course provides a panoramic view of Spanish literature as produced in the Peninsula from the eighteenth to the twentieth century.

## SPAN 320 Survey of Spanish-American

 Literature I (3 credits)Prerequisite: SPAN 240 or 242 . This course provides a panoramic view of Spanish-American literature from the colonial period to the end of the nineteenth century.

## SPAN 321 Survey of Spanish-American Literature II (3 credits)

 Prerequisite: SPAN 240 or 242. This course provides a panoramic view of Spanish-American literature of the twentieth century.SPAN 362 Civilization of Mexico, the Central American Region and the Spanish Caribbean (3 credits)
Prerequisite: SPAN 240 or 242. This course is designed to acquaint the student with the cultural achievements of the region within an historical framework. Emphasis is on Mexico and Cuba; the major achievements of the Dominican Republic, Venezuela, Colombia, and the Central American countries are highlighted. NOTE: Students who have received credit for SPAN 361 may not take this course for credit.

SPAN 363
Civilization of the Southern Cone and the Andean Region (3 credits)
Prerequisite: SPAN 240 or 242. This course is designed to acquaint the student with the cultural achievements of the region within an historical framework. Emphasis is on Argentina, Peru, and Chile; the major achievements of Uruguay, Paraguay, Ecuador, and Bolivia are highlighted. NOTE: Students who have received credit for SPAN 361 may not take this course for credit.

## SPAN 365 The Civilization of Spain (3 credits)

Prerequisite: SPAN 240 or 242. This course undertakes a study of important historical events and figures of Spain from the Middle Ages to the present. It also provides an introduction to

Spanish arts and cultural achievements. NOTE: Students who have received credit for SPAN 360 may not take this course for credit.

## SPAN 370 Structure of the Spanish Language ( 3 credits)

Prerequisite: SPAN 240 or 242. This course provides an overview of the linguistic structure of the Spanish language. Topics include phonetics, morphology, syntax, and semantics. NOTE: Students who have received credit for this topic under a SPAN 398 number may not take this course for credit.

SPAN 398 Special Topics in Spanish (3 credits)

SPAN 399 Special Topics in Spanish (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## SPAN 401

## Effective Written Communication in Spanish (3 credits)

Prerequisite: SPAN 301. This course provides an opportunity for students to perfect their ability to write Spanish clearly and effectively for professional purposes, with encouragement of direct contact with Hispanic cultural institutions.

## SPAN 403 Methods of Literary Analysis

 (3 credits)Prerequisite: SPAN 304 or 311 or 321. This course presents the student with some of the fundamental concepts of twentieth century literary theory and criticism such as formalism, Marxism, structuralism, semiotics, psychoanalytical and feminist approaches. Practice in criticism is applied to Hispanic texts.
NOTE: Students who have received credit for SPAN 303 may not take this course for credit.

SPAN 406 Medieval Literature (3 credits) Prerequisite: SPAN 310. This course examines Castilian prose and poetry until about 1500 . Texts analysed include selections from El libro de buen amor, La Celestina, as well as the works of authors such as the Marqués de Santillana, Juan de Mena, and Juan Boscán. NOTE: Students who have received credit for SPAN 407 may not take this course for credit.

SPAN 411 Golden Age Prose (3 credits) Prerequisite: SPAN 310. This course provides critical study of the novel and other narrative didactic genres of the sixteenth and seventeenth centuries through the analysis of representative works. Emphasis is on Cervantes' contribution to the novel.

## SPAN 412 Golden Age Drama and Poetry (3 credits)

Prerequisite: SPAN 310. This course examines
the development of Spanish verse drama of the sixteenth and seventeenth centuries through the analysis of representative authors such as Lope de Vega and Tirso de Molina. The work of non-dramatic poets such as Góngora is also considered.
NOTE: Students who have received credit for SPAN 413 may not take this course for credit.

## SPAN 416 Peninsular Neoclassicism and Romanticism (3 credits)

Prerequisite: SPAN 240 or 242. This course presents the literature of eighteenth-century neoclassicism and the rules of its art through a study of representative authors, such as Jovellanos and Moratín. Nineteenth-century Romantic poetry and drama are studied through the works of representative authors such as Espronceda, Zorrilla, and Bécquer.

## SPAN 417 Peninsular Realism and Naturalism (3 credits)

Prerequisite: SPAN 240 or 242. This course presents the development of the novel during the Realist and Naturalist periods in Spain, through the analysis of representative authors such as Pardo Bazán, Clarín, Valera, and Pérez Galdós.

## SPAN 420 The Generation of 1898

 (3 credits)Prerequisite: SPAN 240 or 242 . Through a study of authors such as Unamuno, Baroja, Azorín, Machado, and Valle-Inclán, this course examines the Spanish crisis of 1898 and its issues, such as the Spanish national character and the Castilian landscape.

## SPAN 421 Twentieth-Century Spanish Literature to the Civil War (3 credits)

Prerequisite: SPAN 240 or 242. This course presents twentieth-century Spanish literature up to 1939. Special attention is given to García Lorca and the Group of 1927.
NOTE: Students who have received credit for SPAN 431 may not take this course for credit.

## SPAN 422 Twentieth-Century Spanish Literature after the Civil War (3 credits)

Prerequisite: SPAN 240 or 242. This course presents literature of the post-civil war period as well as some of the later "experimental" novels. NOTE: Students who have received credit for SPAN 431 may not take this course for credit.

## SPAN 423 Twentieth-Century Spanish-American Literature before 1960 (3 credits)

Prerequisite: SPAN 240 or 242. This course examines the literary production in Spanish America during the first half of this century through representative works of some of the major writers of the era, such as Gallegos, Bombal, Borges, Neruda, and Azuela.
NOTE: Students who have received credit for SPAN 432 may not take this course for credit.

SPAN 424 Twentieth-Century Spanish-American Literature from 1960 to the Present (3 credits)
Prerequisite: SPAN 240 or 242 . This course examines the phenomenon of el boom in Spanish-American literature and its innovative aspects in authors such as García Márquez, Fuentes, Vargas Llosa, Rulfo, Puig, and Allende.
NOTE: Students who have received credit for
SPAN 432 may not take this course for credit.

## SPAN 430 Women and Hispanic

Literature (3 credits)
Prerequisite: SPAN 311 or 321 or 403. This course examines the relationship between women and literature in Spain and Spanish America, through issues such as the image of women in Hispanic literature, women as fictional characters, and women as writers.
NOTE: Students who have received credit for SPAN 498C may not take this course for credit.

## SPAN 441 Spanish-American

 Romanticism (3 credits)Prerequisite: SPAN 240 or 242. This course examines the development of post-Independence literature of Spanish America until the end of the nineteenth century. Emphasis is placed on identifying distinctively Spanish-American literary traits within the Romantic context.

## SPAN 442 Spanish-American Modernism and Vanguardism (3 credits)

Prerequisite: SPAN 240 or 242. This course presents the stages of Modernism and Vanguardism through a study of representative works of authors such as Martí, Darío, Mistral, Neruda, and Paz.

## SPAN 450 The Spanish-American Short

 Story (3 credits)Prerequisite: SPAN 240 or 242. This course presents the Spanish-American short story from the thematic, historical, and theoretical perspectives. Representative authors include Borges, Cortázar, Garcia Márquez, and Valenzuela. NOTE: Students who have received credit for SPAN 498G may not take this course for credit.

## SPAN 461 History of the Spanish Language (3 credits)

Prerequisite: SPAN 310 or 370 . This course provides a study of the development of the Spanish language from earliest times to the present. Consideration is given to the language in the Americas.
NOTE: Students who have received credit for this topic under a SPAN 498 number may not take this course for credit.

## SPAN 464 Issues in Spanish-American

Civilization (3 credits)
Prerequisite: SPAN 362 or 363. This course examines the current status of the issues that have shaped Spanish-American culture, such as the native peoples' question, land reform,
religious institutions, and the search for identity. It provides an opportunity for students to work in an Hispanic cultural context, as emphasis is placed on research projects that include interviews, oral presentations and reports.

SPAN 480 Tutorial I (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, to meet the student's individual needs.

SPAN 481 Tutorial II (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, to meet the student's individual needs.

SPAN 482 Tutorial III (3 credits)
Prerequisite: Permission of the Department.
This course consists of guided readings in Spanish language and/or Hispanic literature, to meet the student's individual needs.

SPAN 483 Tutorial IV (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, to meet the student's individual needs.

## SPAN 490 Honours Essay Tutorial

 (3 credits)Prerequisite: Honours status. This course provides the Honours candidate with the opportunity to prepare an extensive research essay, on a topic to be chosen by the candidate with the approval of a supervising member of the faculty of the Spanish section.

## SPAN 498 Advanced Topics in Spanish

 (3 credits)SPAN 499 Advanced Topics in Spanish ( 6 credits)
Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## Linguistics

LING 200 Introduction to Linguistic Science ( 6 credits)
Introduction to the principles of general linguistics for beginners in the field. Basic phonology and morphology. Emphasis on synchronic linguistic analysis, with a brief examination of historical and comparative linguistics.

LING 298 Selected Topics in Linguistics (3 credits)

LING 299 Selected Topics in Linguistics ( 6 credits)
Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

LING 300 Sociolinguistics (3 credits)
A study of the beliefs, interrelationships, and values of societal groups as reflected in language. NOTE: Students who have received credit for LINZ 300 may not take this course for credit.

LING 312 Theory of Grammars ( 6 credits) Prerequisite: LING 200, previously or concurrently, or permission of the Department. This course deals with the history and development of grammatical theory prior to Chomsky. Considerable emphasis is placed on traditional grammar, the school of de Saussure, and Bloomfieldian structuralism. The principles of historical linguistics and the development of semantic theory and Meaning-Structure Grammar are also examined.

LING 320 Semantics (3 credits)
This course introduces the basic notions required for analysis of meaning within a theory of language. The central objective is the representation of the logical structure of natural language as a basis for explaining how competent users interpret words, phrases, and sentences. Readings focus on elements of grammatical structure, lexical content, and the context of utterance. Some contemporary works in linguistic semantics are critically examined.

## LING 330 Sanskrit (6 credits)

Prerequisite: LING 200, previously or concurrently, or permission of the Department. An accelerated introduction to the fundamentals of Sanskrit grammar through the extensive reading of texts, first in transliteration and later in devanāgarī. Particular attention is given to the language of the Rig-Veda.

LING 341 Introduction to Romance Linguistics (3 credits)
A study of the modern Romance languages, especially French, Italian, and Spanish, and their development from Latin.
NOTE: Students who have received credit for LING 441 may not take this course for credit.

## LING 372 Descriptive and Instrumental

 Phonetics ( 3 credits)Description of speech sounds in articulatory terms. Identification and description of sounds that occur outside the Indo-European family of languages. Description of speech sounds as to their acoustic qualities: frequency, amplitude, pitch, stress. Interpretation of sound spectrograms.

## LING 373 Phonological Analysis

(3 credits)
Prerequisite: LING 200 and/or 372, or permission of the Department. The fundamentals of distinc-tive-feature analysis as developed by Jakobson, Chomsky, and Halle. Theoretical concepts and notational techniques are emphasized. Extensive training in data analysis and rule writing.

LING 398 Selected Topics in Linguistics (3 credits)
LING 399 Selected Topics in Linguistics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## LING 400 Theory of Generative <br> Grammar I (3 credits)

Prerequisite: LING 200 or permission of the Department. Chomsky's extended standard theory. Phrase-markers and phrase-structure rules; $x$-bar syntax; the lexicon; WH-movement, thoughmovement, topicalization, and VP-preposing.

## LING 401 Theory of Generative Grammar II (3 credits)

Prerequisite: LING 400, or equivalent. Subject raising; reflexive interpretation; structure-preserving, trace, and cyclic principles; constraints; fillers; the binding theory and current developments.

LING 421 Non-Indo-European Structures (6 credits)
Prerequisite: LING 200, or permission of the Department. This course is intended to give the student an in-depth acquaintance with the structures of several languages differing markedly in their nature from Indo-European. Possible areas of study might be Eskimo, Finnish, Japanese, Swahili, Turkish, some Amerindian or MalayoPolynesian language, etc. As a general rule, only four languages are investigated in a particular year.

## LING 431 Comparative Indo-European Linguistics ( 6 credits)

Prerequisite: LING 200, or permission of the Department. Through a comparative study of the phonology of the various branches of the Indo-European language family (Indo-Iranian, Hellenic, Italic, Germanic, Slavic, Baltic, etc.), this course familiarizes the student with the techniques used in linguistic reconstruction. Emphasis is given to the development and differentiation of languages through time.

LING 436 Advanced Indo-European Studies (3 credits)
Prerequisite: LING 431, previously or concurrently. Detailed study of the synchronic and diachronic grammar of an Indo-European dialect essential to the reconstruction of the protolanguage. Extensive readings are undertaken in both original texts and in scholarly contributions to their elucidation. Emphasis is placed on current issues and research in the field.

## LING 437 Problems in Indo-European Comparative Grammar (3 credits)

Prerequisite: LING 431, previously or concurrently. This course explores one or more areas of Indo-European comparative grammar of particular interest in current research. Extensive
reading in the scholarly literature is undertaken with emphasis on the principles by which hypotheses in historical linguistics can be framed and the criteria for testing such hypotheses.

LING 446 Comparative Grammar of Greek and Latin (3 credits)
Prerequisite: LING 200 or CLAS 280 or 290. A study of the similarities and differences in the phonology and morphology of Ancient Greek and Latin. Some attention is also given to issues of syntax and the lexicon.

LING 447 Mycenaean Greek (3 credits) Prerequisite: LING 200 or CLAS 280. Dating from the fourteenth to the twelfth century BCE, Mycenaean - the language of the Linear B tablets - is the earliest form of Greek attested. In this course, selected documents will be read, both in transliteration and in the Mycenaean syllabary, with attention both to linguistic and to cultural issues.
NOTE: Students who have received credit for this topic under a LING 498 number may not take this course for credit.

LING 456 Homeric Greek (3 credits) Prerequisite: LING 200 or CLAS 280. An examination of the language of Homer, an artificial mixture of dialectal and diachronic variants, a Kunstsprache. Against the background of a study of the comparative and historical grammar of Greek and its development from Proto-Indo-European, the focus is on diachronic aspects of Homeric grammar and diction. Readings are principally from Books One and Three of the lliad.

LING 457 Archaic Latin and the Italic Dialects (3 credits)
Prerequisite: LING 200 or CLAS 290. A study of inscriptions in archaic Latin and the ancient Italic dialects Oscan and Umbrian. Examination of the main features of phonology, morphology, syntax and the lexicon which distinguish OscoUmbrian from Latin, with reference to their development from Proto-Indo-European.

## LING 461 Hittite (3 credits)

Prerequisite: LING 330 or 431, previously or concurrently, or permission of the Department. The fundamentals of Hittite grammar are presented through the extensive reading of texts, both in transliteration and cuneiform. Considerable attention is given to problems of comparative grammar.
$\begin{array}{ll}\text { LING } 498 \quad \text { Advanced Topics in } \\ & \text { Linguistics (3 credits) }\end{array}$
LING 499 Advanced Topics in Linguistics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## NON-PROGRAM COURSES:

## Hebrew

THE DEPARTMENT RESERVES THE RIGHT TO
TRANSFER A STUDENT TO A HIGHER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE FOR THE EXTENT OF HIS OR HER KNOWLEDGE OF THE LANGUAGE.

## HEBR 210 Introductory Course in Hebrew

 (6 credits)A beginners' course in Hebrew, with readings of classical and modern texts.
NOTE: Students who have taken Hebrew at the cégep level, or whose schooling has been conducted in Hebrew, will not be admitted to this course.

HEBR 250 Intermediate Hebrew (6 credits)
Prerequisite: HEBR 210, or permission of the Department. This course will include a comprehensive review of Hebrew grammar and syntax with readings of classical and modern Hebrew texts.

## Modern Languages

The following courses give instruction in languages and cultures not included in any of the Department's programs.

MGRK 290 Modern Greek ( 6 credits) This course provides an introduction to the basic elements of modern Greek for the student with no knowledge of the language.
NOTE: Students who have received credit for this topic under an MODL 399 number may not take this course for credit.

## MGRK 398 Special Topics in Modern

 Greek (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

MIRI $290 \quad$ Modern Irish ( 6 credits)
This course provides an introduction to the basic elements of modern Irish for the student with no knowledge of the language.
NOTE: Students who have received credit for this topic under an MODL 399 number may not take this course for credit.

## MIRI 398 Special Topics in Modern Irish

 (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## MODL 298 Special Topics in Modern Languages (3 credits) <br> MODL 299 Special Topics in Modern Languages ( 6 credits)

Specific topics for these courses, and
prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

MODL 398 Special Topics in Modern Languages (3 credits)

MODL 399 Special Topics in Modern Languages ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

MODL 498 Advanced Topics in Modern

Languages (3 credits)
MODL 499 Advanced Topics in Modern Languages ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

MRUS 290 Russian ( 6 credits)
This course provides an introduction to the basic elements of Russian for the student with no knowledge of the language.
NOTE: Students who have received credit for RUSS 330 may not take this course for credit.

MRUS 398 Special Topics in Russian (3 credits)
Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.070 <br> <br> COMMUNICATION STUDIES 

 <br> <br> COMMUNICATION STUDIES}


Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
The Department offers three programs of study, and one other jointly with Journalism.
a) BA, Specialization in Communication Studies: consisting of 60 credits in Communication Studies and 30 credits from electives outside the Department.
b) BA, Major in Communication Studies: consisting of 42 credits in Communication Studies and 48 credits from electives outside the Department.
c) $B A$, Specialization in Communication and Journalism: consisting of 60 credits in Communication and Journalism courses and 30 credits from electives outside Communication and Journalism.
d) BA, Major in Communication and Cultural Studies: consisting of 42 credits in Communication Studies and 48 credits from electives outside the Department.

Elective credits are understood as courses taken in other departments or Faculties of the University. Credits in Communication Studies or Journalism, or in the Mel Hoppenheim School of Cinema may not be used in lieu of electives.

200 -level courses are normally taken in first year, 300-level courses in second year, 400 -level courses in third year.

Written work may be required in English for courses in Journalism; please consult the Department.

Students are required to complete the appropriate entrance profile for entry into the program (see §31.002 - Programs and Admission Requirements - Profiles).

60 BA Specialization in Communication Studies
18 COMS $230^{3}, 240^{3}, 256^{3}, 278^{3}, 280^{3}, 282^{3}$
6-18 Chosen from courses in Cluster I*
24-36 Chosen from courses in Cluster II-IV with at least three credits from Cluster II and six credits from each of Clusters III and IV at the 300 or 400 level
${ }^{*}$ No more than one course from Cluster I may be done concurrently.

42 BA Major in Communication Studies<br>18 COMS $230^{3}, 240^{3}, 256^{3}, 278^{3}, 280^{3}, 282^{3}$<br>6-12 Chosen from courses in Cluster I*

12-18 Chosen from courses in Cluster II-IV with at least three credits from each Cluster at the 300 or 400 level *No more than one course from Cluster I may be done concurrently.

42 BA Major in Communication and Cultural Studies
Stage I
9 COMS $240^{3}, 325^{3}, 326^{3}$
3 Chosen from COMS $301^{3}, 302^{3}, 303^{3}$, $304^{3}$
Stage II
3 Chosen from COMS $323^{3}, 367^{3}, 368^{3}$ Stage III
3 Chosen from COMS $462^{3}, 463^{3}, 465^{3}$
24 Chosen from Communication Clusters III and IV at the 300 or 400 level with at least six credits in each Cluster, and at least six credits at the 400 level in addition to the Stage III requirement.

60 BA Specialization in Communication and Journalism
NOTE: Students must meet the admission requirements of both the Departments of Communication Studies and Journalism. Stage I
15 JOUR $200^{3}, 201^{6}$; COMS $240^{3}, 256^{3}$
3 COMS $278^{3}$ or $282^{3}$
Stages II \& III
3 JOUR $203^{3}$ or $205^{3}$
3 JOUR $302^{3}$ or $303^{3}$
3 JOUR $316^{3}$ or $317^{3}$
JOUR $318^{3}$ or $319^{3}$
JOUR $332^{3}$ or $463^{3}$
COMS $378^{6}$ or $387^{6}$
Chosen from JOUR $400^{3}, 402^{3}, 404^{3}$
JOUR $444^{3}$
15 Chosen from Communication Clusters III and IV at the 300 or 400 level.

1st-Year Courses

## 1ST-YEAR COURSES:

| COMS 230 | Basic Writing for the Media | COMS 278 | Sound I (3 credits) |
| :--- | :--- | :--- | :--- |
|  | (3 credits) | COMS 280 | Film I (3 credits) |
| COMS 240 | Communication Theory | COMS 282 | Television I (3 credits) |
|  | (3 credits) | COMS 325* | Approaches to Communication |
| COMS 256 | Introduction to Digital | COMS 326** | Research (3 credits) <br> Media Institutions and Policies <br> (3 credits) |
|  | Communication Media | (3 credits) |  |
| *These courses are reserved for students enrolled in the Communication and Cultural Studies Major. |  |  |  |

## CLUSTERS:

I. Laboratory

COMS 378
COMS 379
COMS 380
COMS 381
COMS 387

COMS 478 Sound III ( 6 credits)
COMS 481 Film III ( 6 credits)
COMS 487 Television III ( 6 credits)
COMS 490 Communication Programming (6 credits)

| II. Seminar/Practicum | COMS 305 | Advanced Scriptwriting for Film (6 credits) | COMS 444 | Television Aesthetics I (3 credits) |
| :---: | :---: | :---: | :---: | :---: |
|  | COMS 324 | Communication Analysis of Environment (3 credits) | COMS 445 | Television Aesthetics II (3 credits) |
|  | COMS 330 | Advanced Scriptwriting for Television ( 6 credits) | COMS 470 | Advertising and the Consumer Society ( 3 credits) |
|  | COMS 355 | New Technology and Communication Media I (3 credits) | COMS 471 | Public Relations: Principles and Problems (3 credits) |
|  | COMS 356 | New Technology and Communication Media II (3 credits) |  |  |
| III. Media Theory, History and Criticism | COMS 301 | Selected Topics in National Cinemas (Cycled Courses) (3 credits) | COMS 331 COMS 362 | Documentary Television (3 credits) Psychology of Communicatio |
|  | COMS 302 | Selected Topics in Film Genres |  | (3 credits) |
|  | COMS 303 | (Cycled Courses) (3 credits) Selected Topics in Canadian | COMS 365 | History of Sound Recording (3 credits) |
|  |  | Cinemas (Cycled Courses) ( 3 credits) | COMS 416 <br> COMS 417 | Film Criticism ( 3 credits) Film Ideas ( 3 credits) |
|  | COMS 304 | Selected Topics in Film Studies (Cycled Courses) (3 credits) | COMS 434 | Advanced Topics in Film Studies (3 credits) |
|  | $\begin{aligned} & \text { COMS } 306 \\ & \text { COMS } 320 \end{aligned}$ | Documentary Film (3 credits) Media Styles, Modes, and | COMS 435 | Advanced Topics in Documentary Film and |
|  |  | Carriers (3 credits) |  | Television (3 credits) |
|  | COMS 321 | History of Media Technologies (3 credits) | COMS 462 | Communication, Culture, and Popular Art (3 credits) |
|  | COMS 322 | Media and Media Culture (3 credits) | COMS 463 <br> COMS 465 | Semiotics (3 credits) Rhetoric and Communication |
|  | COMS 323 | Media Theory (3 credits) |  | (3 credits) |
| IV. Media and Society | COMS 352 | Broadcasting Policy in Canada (3 credits) | COMS 453 | Communication Ethics (3 credits) |
|  | COMS 354 | Children's Television (3 credits) | COMS 454 | Communication Law and Administration ( 3 credits) |
|  | COMS 360 | Mass Communication (3 credits) | COMS 460 | Political Communication (3 credits) |
|  | COMS 361 | Seminar in Propaganda (3 credits) | COMS 461 | Organizational Communication (3 credits) |
|  | COMS 366 | Interpersonal Communication and Cultural Context (3 credits) | COMS 464 | Race, Ethnicity and Media (3 credits) |
|  | COMS 367 | Media and Cultural Context (3 credits) | COMS 468 | Communications, Development and Colonialism (3 credits) |
|  | COMS 368 COMS 419 | Media and Gender (3 credits) Communications and | COMS 472 | Communication Technologies and Gender (3 credits) |
|  |  | Indigenous Peoples (3 credits) | COMS 473 | International Communications |
|  | COMS 437 | Seminar in Media Forecast (3 credits) |  | ( 3 credits) |

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## COMS 230 Basic Writing for the Media (3 credits)

Prerequisite: Registration in a Communication Studies program. This course is designed to provide knowledge of and practice in the special written forms and formats utilized by the media. Assignments are practically oriented towards possible student productions.

## COMS 240 Communication Theory

(3 credits)
Prerequisite: Registration in a Communication

Studies program. Through lectures, discussions, and selected readings from the works of key theoreticians, this course introduces students to major approaches to the understanding of the process of communication.

## COMS 256 Introduction to Digital Communication Media (3 credits)

Prerequisite: Registration in a Communication Studies program. This course introduces the student to basic concepts in digital communi-
cations, primarily computer-based media, and their application to the fields of television, film and sound production. The course provides an historical, theoretical, and critical perspective on new and developing digital technologies.

COMS 278 Sound I (3 credits)
Prerequisite: Registration in a Communication Studies program. This course is designed to provide the student with a basic working knowledge of audio systems both natural and electronic, to understand the various affective and psychological qualities of sound, and how sound may be structured into imaginative aural forms. Lectures and laboratory: average six hours per week.

COMS 280 Film I (3 credits)
Prerequisite: Registration in a Communication Studies program. The course is designed to provide students with a basic working knowledge of the communicational and aesthetic characteristics of the medium of film, and of the specific elements inherent in their effective use. Course methodology includes lectures, screenings, readings, workshops and exercises using 16 mm film. Lectures and laboratory: average six hours per week.
NOTE: Students who have received credit for COMS 275 or for this topic under a COMS 298 number may not take this course for credit.

COMS 282 Television I (3 credits)
Prerequisite: Registration in a Communication Studies program. The course is designed to provide students with a basic working knowledge of the communicational and aesthetic characteristics of the medium of television, and of the specific elements inherent in their effective use. Course methodology includes lectures, screenings, readings, workshops and exercises using television. Lectures and laboratory: average six hours per week.
NOTE: Students who have received credit for COMS 284 or for this topic under a COMS 298 number may not take this course for credit.

## COMS 298 Selected Topics in Communication Studies (3 credits)

COMS 299 Selected Topics in Communication Studies (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## COMS 301 Selected Topics in National

 Cinemas (3 credits)Prerequisite: 30 credits; permission of the Department. This course focuses on selected national cinemas. The analytic perspective of the course varies but may encompass such issues as cultural contexts; aesthetic conventions;
economic and policy constraints; and the history of canons and their renewals. Specific topics for this course will be stated in the Undergraduate Class Schedule.

## COMS 302 Selected Topics in Film Genres (3 credits)

Prerequisite: 30 credits; permission of the Department. This course presents an analysis and critique of the medium of film through the framework of conceptions of genre. The analytic focus of the course varies but may include such issues as the history of genre theory as it has been applied in film analysis; the analysis of canonical genres (e.g. film noir, neo-realism, the western); the analysis of emergent or hybrid film genres (e.g. women's cinema, the experimental cinema, docudrama). Specific topics for this course will be stated in the Undergraduate Class Schedule.

## COMS 303 Selected Topics in Canadian Cinemas (3 credits)

Prerequisite: 30 credits; permission of the Department. This course focuses on the analysis and critique of cinema practices in Canada. It may include the analysis of such issues as regional or cultural specificities (e.g. le cinéma québécois, film in British Columbia, African-Canadian cinema ); the analysis of particular historical periods (e.g. the Canadian Silent cinema, independent cinema in the 1980s); or particular aesthetic formations (e.g. the "cinema d'auteur", Studio D of the National Film Board). Specific topics for this course will be stated in the Undergraduate Class Schedule.

## COMS 304 Selected Topics in Film Studies (3 credits)

Prerequisite: 30 credits; permission of the Department. The topic of this course varies but may include such issues as film theories; the political economy of cinema; the analysis of particular periods in film history; the analysis of the films of particular directors and/or producers; film policies, or the relations between film, video, and television. Specific topics for this course will be stated in the Undergraduate Class Schedule.

## COMS 305 Advanced Scriptwriting for Film (6 credits)

Prerequisite: Registration in a Communication Studies program; submission of a qualifying assignment by July 1 and subsequent approval of instructor. This assignment, which varies from year to year, is intended to test the student's writing ability and creative imagination. A practical course in writing film-drama: story construction and plotting, scene-making, characterization and character development, dialogue, dramatic continuity, timing, pacing, rhythm, suspense, and creative criticality. Many of these fictional and dramatic techniques are, as the occasion arises, applied to non-fictional scripts as well. The method consists of lecture, discussion, demonstration, critique. Assignments are on-going.

COMS 306 Documentary Film (3 credits) Prerequisite: 30 credits; open to all University students; permission of the Department. A survey of the documentary film field from 1895 until today, with an examination of major styles (romantic, realistic, expressionistic, avantgarde, etc.) in the works of significant documentary filmmakers. The method consists of lecture, screenings, critique, and discussion.

Communication Studies students may take no more than six credits from the Mel Hoppenheim School of Cinema or Department of Print Media and Photography courses of the Faculty of Fine Arts.

## COMS 320 Media Styles, Modes, and Carriers (3 credits)

Prerequisite: Registration in a Communication Studies program. This course examines selected elements from the history of representational arts, such as painting, architecture, drama or music, as instances of forms and styles of communication. Readings and viewings of major styles, artworks, and authors are included.

## COMS 321 History of Media Technologies

 (3 credits)Prerequisite: Registration in a Communication Studies program. This course examines the history of the technical aspects of such media as photography, cinema, scenography, radio, and television. This history is considered in relationship to social, cultural and formal developments within these media.

## COMS 322 Media and Media Culture

 (3 credits)Prerequisite: Registration in a Communication Studies program. Media, and their impact on people and society, in order of historical appearance: literacy, printing, the still photograph, cinema, radio, television. The growth of the technologies of work, movement, education, thought, and social organization. The problems of the individual in a technological environment. NOTE: Students who have received credit for COMS 304 may not take this course for credit.

COMS 323 Media Theory (3 credits)
Prerequisite: Registration in a Communication Studies program. Analysis of the historical and current evidence in an attempt to understand what media are, what they do of themselves, their common characteristics, cumulative patterns, and necessary effects. Are there inherent "laws" of media? Emphasis is on the intellectual faculty as manifested in society's response to media. NOTE: Students who have received credit for COMS 304 may not take this course for credit.

## COMS 324 Communication Analysis of Environment (3 credits)

 Prerequisite: 30 credits; registration in a Communication Studies program. This course engages in general and detailed analysis ofvarious information complexes: museums, galleries, exhibitions, countrysides, landscapes, city streets, highways, department stores, churches, and others. These analyses are conducted from the standpoint of information values used to influence prospective audiences of films, television programs, or exhibition and theatre visitors. The basic values of light, space, sound, picture, words, and exhibit structures are explored through individual student projects in real locations. Students work on individual projects under the supervision of the directing professor. Tutorial course.
NOTE: Students who have received credit for COMS 255 may not take this course for credit.

## COMS 325 Approaches to Communication

 Research (3 credits)Prerequisite: Registration in Communication and Cultural Studies Major; or permission of the Department. This course introduces students to the logics of inquiry of the major research approaches used within Communication and Cultural Studies. It familiarizes students with the formation of research questions, the choice of appropriate methodological tools, and the interpretation and reporting of research findings. There is a particular focus on qualitative approaches to field research and discourse and textual analysis.

## COMS 326 Media Institutions and Policies

 (3 credits)Prerequisite: Registration in Communication and Cultural Studies Major; or permission of the Department. This course introduces students to the analysis of the institutional, political, and economic forces that have shaped the development of media during the twentieth century. Attention is given to the ownership structures, corporate practices, and state policy interventions affecting media institutions in both the public and private sectors. A particular focus is given to the interrelations between Cultural, Multicultural, and Communication Policy interventions.

## COMS 330 Advanced Scriptwriting for Television (6 credits)

Prerequisite: Registration in a Communication Studies program; submission of a qualifying assignment by July 1 and subsequent approval of instructor. This assignment, which varies from year to year, is intended to test the student's writing ability and creative imagination. Anatomy of script; audio-visual components and functions; TV drama, comedy, documentary, docu-drama. The creative process: plot development, character and dialogue; uses of tension, conflict, "tricks of the trade"; professional attitude and discipline vis-à-vis the market. Lectures, demonstrations, group discussions, and script projects.

## COMS 331 Documentary Television (3 credits)

Prerequisite: 30 credits; open to all University students; permission of the Department. A survey of the documentary television field from
its beginning until today, with an examination of characteristic styles and forms (informative, biographical, current events, compilative, etc.). The method consists of lecture, video example, critique, and discussions

## COMS 352 Broadcasting Policy in Canada

 (3 credits)Prerequisite: 30 credits; permission of the Department. This course acquaints the student with the historical development of broadcasting and broadcasting legislation in Canada. It covers the present state of broadcasting policy in Canada, its goals and problems, and explores alternative solutions.
NOTE: Students who have received credit for COMS 467 may not take this course for credit.

## COMS 354 Children's Television (3 credits)

Prerequisite: 30 credits; permission of the Department. This course explores forms of communication that have developed between children and television. Topical areas include future policies and planning in the light of developmental needs, ethical parameters, and experiments in creative empowerment.

## COMS 355 New Technology and Communication Media I (3 credits)

Prerequisite: COMS 256; permission of the Department. This course examines the applications of computers in the field of communications from conceptual, theoretical, and practical perspectives. Analog and digital representation, transmission, storage, and processing of visual and aural information are discussed. Lectures and laboratory.

## COMS 356 New Technology and Communication Media II

 (3 credits)Prerequisite: COMS 355; permission of the Department. This course examines more advanced concepts and techniques for the production of computer-generated colour video graphics; computer-generated sound; information input/retrieval networks; hypertext, hypermedia, other digital media, and interactive multi-media systems. Lectures and laboratory.

## COMS 360 Mass Communication

 (3 credits)The course examines the nature and forms of mass communication, the social sources and uses of mass communication, its psychology, audiences, and effects. The ethics of mass communication are also discussed. Through guest lecturers from the various media and readings of contemporary analyses/critiques, issues such as media ownership and access, government and self-regulation, technological implications, media accountability, etc., are raised. NOTE: Students who have received credit for COMZ 360 may not take this course for credit.

## COMS 361 Seminar in Propaganda

 (3 credits)Prerequisite: 30 credits. The aim of this course is to recognize the orchestration of the elements of propaganda in media, and to develop the means to deal with it. Course methodology includes lectures, discussions, and projects.

## COMS 362 Psychology of Communication

 (3 credits)Prerequisite: Registration in a Communication Studies program. The objectives of the course are to provide the learner with: 1) an overview of psychological processes active in the communicative act; 2) the opportunity to explore a single media area in depth, either independently or in a small group. Through a variety of formats, topic areas such as the following are explored: perception and information processing, language development, areas of para-psychology related to communication, influences on attitude/behaviour, verbal/non-verbal codes, meaning, etc.

## COMS 365 History of Sound Recording

 (3 credits)Prerequisite: 30 credits; permission of the Department. This course traces the technological development of sound recording and establishes the historical context and the social and economic conditions in which this development has occurred. The evolution of studio recording practices, the structure of the music industry and its global operations, changes in the production and consumption of music, and changes in the role of music as a form of cultural communication are examined. Attention is also given to sound recording practices in cinema, radio, television and digital media. NOTE: Students who have received credit for COMS 398F may not take this course for credit.

## COMS 366 Interpersonal Communication and Cultural Context (3 credits)

 Prerequisite: 30 credits; permission of the Department. This course examines the relationship between value orientations, social perception, self-concept, identity, and other culturallydetermined phenomena, as well as verbal and non-verbal communication processes. It draws upon theory and research on communication between members of different cultures and sub-cultures.NOTE: Students who have received credit for COMS 363 may not take this course for credit.

## COMS 367 Media and Cultural Context

 (3 credits)Prerequisite: 30 credits; permission of the Department. This course examines the ways in which different cultures express themselves using print, film, radio, and television; the cultural content of media messages; the role of mass communication across cultural boundaries, as well as media representation of, and access by, cultural groups. The course utilizes screenings and case studies.
NOTE: Students who have received credit for COMS 363 may not take this course for credit.

COMS 368 Media and Gender (3 credits) Prerequisite: 30 credits; permission of the Department. This course investigates how sex and gender are represented in and by the media. The course examines sexuality, sexism, and theories of gender through a critical examination of contemporary media topics. NOTE: Students who have received credit for this topic under a COMS 398 number may not take this course for credit.

COMS 378 Sound II (6 credits)
Prerequisite: COMS 230; COMS 278; permission of the Department. This course gives the student a knowledge of the basic disciplines necessary for constructing aural message forms from the simplest to the most complex; experience in the various technologies required to apply these aural forms to radio, film, television, etc. Students prepare, produce, and direct, individually and in teams, a number of projects. Lectures and laboratory: average six hours per week.

COMS 379 Visual Dynamics I ( 6 credits) Prerequisite: COMS 280 or permission of the Department. This course involves both theory and fieldwork in photographing human-created environments; e.g. the city, using natural light. The student acquires an understanding of the problems of distance and direction by means of lectures, critiques of fieldwork, and individual consultation.
NOTE: Students are required to possess certain recommended equipment.
NOTE: Students who have received credit for COMS 374 may not take this course for credit.

COMS 380 Visual Dynamics II ( 6 credits) Prerequisite: COMS 379 or permission of the Department. A study of the development of visual artifacts and media in the search for an increasingly adequate mimesis of persons, situations, and meanings. The course comprises both the practical and the theoretical aspects of the visual image, historically and currently, and examines the assumptions underlying the quest for the auto-communicative image. Lectures and laboratory: average six hours per week. NOTE: Students who have received credit for COMS 375 may not take this course for credit.

COMS 381 Film II (6 credits)
Prerequisite: Above-average standing in COMS 280; permission of the Department. This course involves an examination of the communicative process through the medium of film. Areas covered include scripting, directing, and shooting, with both silent and sync-sound equipment. Productions are designed to test the student's theoretical knowledge and give practical experience in the craft of filmmaking. Lectures and laboratory: average six hours per week.

COMS 387 Television II ( 6 credits)
Prerequisite: COMS 282; permission of the
Department. A study of the components related
to the creation of the television documentary and short-feature program in terms of the theoretical possibilities inherent in the medium. Student productions in the two genres, from idea-stage through completed videotape, constitute the laboratory section of the course. Lectures and laboratory: average six hours per week.

## COMS 398 Selected Topics in Communication Studies (3 credits)

## COMS 399 Selected Topics in Communication Studies (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

COMS 416 Film Criticism (3 credits) Prerequisite: 60 credits; permission of the Department. An introduction to the assumptions, methodologies, and vocabularies implicit in important schools of popular and academic film criticism.

COMS 417 Film Ideas (3 credits)
Prerequisite: Registration in a Communication Studies program. Seminar using film criticism to focus on aesthetic/cultural dimension of present trend-setting films, and to explore students' sensibility in the context of contemporary culture. Methodology includes viewings, discussions, written critiques, critical/aesthetic readings.

## COMS 419 Communications and Indigenous Peoples (3 credits)

Prerequisite: 60 credits; permission of the Department. Focusing on Canadian First Peoples territories in the North and South, selected circumpolar regions, parts of Australia and other areas of the world inhabited by indigenous peoples, this course examines from a global perspective the historical, theoretical, and (cross-)cultural content and contexts of aboriginal media - financing, audience research, product development, distribution issues, and policy formation. Broadcasting, print, and digital media case studies and materials are a central component.
NOTE: Students who have received credit for COMS 364 may not take this course for credit.

## COMS 434 Advanced Topics in Film Studies (3 credits)

Prerequisite: 60 credits; registration in a Communication Studies program. This course provides an in-depth study of a selected area of film studies. Specific topics for this course will be stated in the Undergraduate Class Schedule.

## COMS 435 Advanced Topics in Documentary Film and Television (3 credits)

Prerequisite: COMS 306 or $331 ; 60$ credits; registration in a Communication Studies program. This course provides an in-depth study
of selected film and television documentary genres. Specific topics for this course will be stated in the Undergraduate Class Schedule. NOTE: Students who have received credit for COMS 436 may not take this course for credit.

## COMS 437 Seminar in Media Forecast

 (3 credits)Prerequisite: 60 credits. This course examines trends in film, sound, television, and other media for future applications. The course includes theory of media effects. Representatives from industry and government are invited to discuss future trends in media utilization. The course demands a theoretical and practical model for original or novel use of a medium or media mix.

## COMS 444 Television Aesthetics I

 (3 credits)Prerequisite: 30 credits; registration in a Communication Studies program. This course involves the study and application of evaluative judgements and aesthetic principles appropriate to the television medium. It emphasizes the development of television criticism and aesthetics based on a synthesis of the fundamental image elements (light, colour, space, time, motion, and sound) together with an analysis of their interrelationship in the finished product: the television program.

## COMS 445 Television Aesthetics II (3 credits)

Prerequisite: COMS 444. This tutorial course is a continuation of COMS 444 for students who wish to do research and experimentation with specific aspects of television aesthetic principles. Assignments include a research paper derived from specific experimental television production units.

## COMS 453 Communication Ethics (3 credits)

Prerequisite: 60 credits; COMS 361 or permission of the Department. This course allows students to confront issues of creative responsibility and ethical dilemmas in media practice. Emphasis is placed upon the relationship between production and theory at the level of ethical responsibility. Specific issues include ethical theories as applied to media, communication and information; the relationship of human values and technologies of information reproduction; the possibilities of critical media practice; identification of challenges emerging from undergraduate experience in Communication Studies.
NOTE: Students who have received credit for COMS 498M, JOUR 446 may not take this course for credit.

## COMS 454 Communication Law and Administration (3 credits)

Prerequisite: 30 credits; registration in a Communication Studies program. This course focuses upon the legal and business aspects of
the communications industry. Among the items covered are basic contract law, torts or delicts, libel and slander, and copyright laws. The legal relationships between the various parties involved in the field of communications, e.g. producer and writer are also analysed.

## COMS 460 Political Communication (3 credits)

Prerequisite: Permission of the Department. The relationships between media institutions and political institutions, both in Canada and internationally, are examined. Issues such as: the flow of political information; the social and political construction of news; the politics of regulation; the politics of influence in campaigns, nation-building socialization through media; ideology in the media, and alternatives to traditional media are explored.
NOTE: Students who have received credit for COMS 465 may not take this course for credit.

## COMS 461 Organizational Communication (3 credits)

Prerequisite: Permission of the Department. The flow of communication within organizational and institutional structures is examined. Topics such as: communication function; patterns and networks; directionality; overload and underload; communication roles and expectations; and processes of organizing are explored. Discussion and field study are combined with readings for an emphasis on applied theory.
NOTE: Students who have received credit for COMS 465 may not take this course for credit.

## COMS 462 Communication, Culture, and Popular Art (3 credits)

Prerequisite: 60 credits; permission of the Department. An introduction to the social analysis of works of popular art. Cultural products such as television programs, hit records, and popular novels are examined through techniques of textual analysis. Within the context of an examination of cultural theories, the course focuses on (1) critical methods based in the theory of rhetoric and (2) theories of mass culture and alienation.

COMS 463 Semiotics (3 credits)
Prerequisite: Registration in a Communication Studies program. This course provides a detailed introduction to the semiotics of communication. The course considers the formal characteristics of signs and codes and examines how signs or texts produce meaning. Central to this course is the notion that sign-systems are fundamental to the production of knowledge and ideology. The course proceeds through lectures, an analytical reading of assigned texts, and student discussion and presentations.

## COMS 464 Race, Ethnicity and Media (3 credits)

Prerequisite: 60 credits; permission of the
Department. This course addresses practical
and theoretical issues of race and ethnicity that have become focal points for current debates in public cultural expression and media studies. The following themes are discussed: cultural/ racial difference and its implications for media studies; the (mis)representation of multicultural and multiracial minorities in mainstream and alternative media; questions of access to arts and other cultural funding sources; implications of employment equity legislation in light of media budget cuts; and cross-cultural awareness programs vs. anti-racist training for media professionals. Theoretical readings which frame issues of cultural and racial representation are an integral part of this course.
NOTE: Students who have received credit for COMS 498R may not take this course for credit.

## COMS 465 Rhetoric and Communication

 (3 credits)Prerequisite: 60 credits. This course focuses upon communication as persuasive or as producing identification. Emphasis is placed upon the role of communication in civic affairs. Classical and contemporary approaches to rhetorical theory and criticism are examined.

## COMS 468 Communications, Development and Colonialism (3 credits)

Prerequisite: 60 credits; permission of the Department. This seminar discusses the role media can play in indigenous and international development. The concept of development communications is examined in the context of debates within neo-colonial and post-colonial theories.

COMS 470 Advertising and the Consumer Society (3 credits)
Prerequisite: Permission of the Department. Advertising as an economic force is examined from a mass-media focus. Communication strategies are analysed. A promotional campaign is prepared and presented as a team project.

## COMS 471 Public Relations: Principles and Problems (3 credits)

Prerequisite: Permission of the Department. This course considers the principles and responsibilities of public relations, and critically examines specific P.R. problems and the choice of media in effecting solutions.

## COMS 472 Communication Technologies and Gender (3 credits)

Prerequisite: 30 credits; permission of the Department. Feminist theories of communication technologies are used to critique the impact and meanings of these technologies in various spheres of cultural activity. Topics include the mass media, technological mediations in organizations and institutions, and the re-articulation of domestic and public spaces, such as the Internet and the World Wide Web. Special attention is paid to these electronic and digital technologies - or new media - and the com-
municational and representational possibilities they enable or foreclose. The class is conducted as an intensive seminar. Completion of a prior course in women's studies or gender studies is recommended.
NOTE: Students who have received credit for COMS 398S may not take this course for credit.

## COMS 473 International Communications

 (3 credits)Prerequisite: 60 credits; permission of the Department. This course explores historical and current parameters of international communications within the context of current global shifts in power/knowledge relations. Discussion topics are selected from among the following: key development and neo-colonial theories, cultural/ media imperialism, globalization, the UN infrastructure, the Right to Communicate debates, national sovereignty issues, international broadcasting, cross-cultural audience reception research and effects theories, telediplomacy, the World Wide Web (Internet), women as an international constituency group, and others.

COMS 478 Sound III ( 6 credits)
Prerequisite: COMS 378; permission of the Department. This course examines the concepts and techniques of digital audio, digital signal processing, sound sampling, synthesis, and MIDI sequencing in media production and postproduction. Through the analysis and discussion of selected media programs, students develop an awareness of the requirements, possibilities, and emerging conventions of digital audio production. Students produce a number of sound projects individually or in teams. Lectures and laboratory: average six hours per week.

COMS 481 Film III (6 credits)
Prerequisite: Above-average standing in
COMS 381; permission of the Department. An advanced course in film theory and communication. Filmmaking processes covered include scripting, directing, " A and B roll" editing, and shooting with crystal sync-sound equipment. Lectures and laboratory: average six hours per week.

COMS 487 Television III ( 6 credits)
Prerequisite: Above-average standing in COMS 387; permission of the Department. An advanced course in television theory and communication. Possible options, depending on the ability of the students in any one year, include the dramatic documentary and the complete adaptation for television of professional plays. Lectures and laboratory: average six hours per week.

COMS 490 Communication Programming ( 6 credits)
Prerequisite: COMS 355; permission of the Department. This course studies the taxonomy of digital media from an information design and programming perspective. Special attention is
given to authoring tools, scripting, hypermedia and hypertext applications in their current and developing digital forms. Individual or group projects are completed. Lectures and laboratory: average six hours per week.

No more than six credits may be taken in Apprenticeships or Directed Study. The appropriate Cluster for Apprenticeship and Directed Study courses is determined by the course content as outlined in the student proposal.

## COMS 494 Communication Studies

Apprenticeship I (3 credits)
Prerequisite: 30 credits; registration in a Communication Studies program; permission of the Department. In consultation with the Apprenticeship Committee, students are given the opportunity to work in the communications industry under the co-supervision of a faculty member and a media professional. Students may be accepted for an open apprenticeship position offered to the Department, or they may formulate a study proposal on their own initiative. In order to receive credit, the apprenticeship proposal must be approved by the Committee.

## COMS 495 Communication Studies

 Apprenticeship II (3 credits)Prerequisite: Registration in a Communication Studies program; permission of the Department. NOTE: Students who have received credit for COMS 494 may register for COMS 495.

COMS 496 Directed Study I (3 credits) Prerequisite: Registration in a Communication Studies program. Towards the end of their second year, students enrolled in a Communication Studies program who have demonstrated scholarly and creative ability may be selected for major research or production in a communications area of special interest. During the third year, individually or in teams, the project is realized in close collaboration with faculty directors. NOTE: Students who have received credit for COMS 495 may not take this course for credit.

COMS 497 Directed Study II (3 credits)
Prerequisite: Registration in a Communication Studies program.
NOTE: Students who have received credit for COMS 496 may register for COMS 497.

COMS 498 Advanced Topics in Communication Studies (3 credits)

COMS 499 Advanced Topics in Communication Studies ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

### 31.080 <br> ECONOMICS



|  | Stage III | Stage III |
| :--- | :--- | :--- |
| 12 | 400-level ECON credits | 12 ECON elective credits |
| 30 | Minor in Economics | *Students exempted from ECON 201 and/or |
|  | Stage I | 203 are required to replace these courses with |
| 6 | *ECON 201 ${ }^{3}, 203^{3}$ | ECON elective credits. |
|  | Stage II | *Any equivalent six credits satisfy this |
| 6 | ECON $318^{3}, 319^{3}$ | component of the program. See §200.7. |
| 6 | ECON elective credits |  |

## BCOMM DEGREE PROGRAMS IN

 ECONOMICS
## BComm Honours in Economics

BComm Major in Economics
(See §61.60)

## BUSINESS STUDIES

Certificate in Business Studies
Minor in Business Studies
(See §61.140)

Economics
Co-operative
Program

## Director

BALBIR S. SAHNI, Associate Professor
The Economics Co-operative program is offered to students who are enrolled in the BA Honours or Specialization in Economics. Students interested in applying for the Economics co-op should refer to §24 where a full description of the admission requirements is provided.
Academic content is identical to that of the regular program, but six Study terms are interspersed with four Work terms.
Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.
Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Economics co-op committee, which includes the student's advisers.
Please refer to $\S 24$ for the schedule of Study and Work terms and the full description of admission requirements.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## ECON 200 Introductory Economics ( 6 credits)

This course is designed primarily for students not majoring in Economics or Commerce, but who wish to have an introduction to economics and the Canadian economy. Its content is essentially the same as that of ECON 201 and ECON 203. However, there is greater emphasis on the economic environment of the firm, and the use of elementary tools of analysis to study Canadian economic institutions, government economic policies, and current economic issues. NOTE: Students who have received credit or exemption for ECON 201 and/or 203, or equivalent, may not take this course for credit.

## ECON 201 Introduction to <br> Microeconomics (3 credits)

Introduction to the functioning of the market system; concepts of supply and demand, the role of prices in resource allocation; production decisions by firms. Analysis of differences between competition and monopoly, and the implications for economic efficiency; theories of labour markets and wage determination. NOTE: Students who have received credit or exemption for ECON 200 may not take this course for credit.

## ECON 203 Introduction to

 Macroeconomics (3 credits)An introductory analysis of aggregate economic activity. The focus is on the principles of determination of the level of employment, national income, real output, inflation, and international balance of payments. The course also analyses the principles which govern trade relations among countries. These topics are integrated by a discussion of government monetary and fiscal policies to stabilize economic activity. NOTE: Students who have received credit or exemption for ECON 200 may not take this course for credit.

ECON 221 Statistical Methods I (3 credits) Prerequisite: Cégep Mathematics 311 or MATH 201. Elementary probability, permutations and combinations, binomial and normal distribution. Analysis and organization of statistical data. Tests of hypotheses. Confidence limits. Introduction into linear regression and correlation. NOTE See §200.7

ECON 222 Statistical Methods II (3 credits) Prerequisite: ECON 221; MATH 209; or equivalent. The course is an introduction to the application of statistical techniques to economic
data. Topics discussed include, among others, time series, statistical inference, analysis of variance, correlation and regression.
NOTE See §200.7

## ECON 251 Economic History Prior to the Industrial Revolution (3 credits)

This course is an introduction to the economic development of the Western world prior to the Industrial Revolution. The emphasis is on economic factors in history: evolution of economic systems, economic growth, development and regression within the context of changing institutional constraints. Interconnections among economic, social, and intellectual change are highlighted.
NOTE: Students who have received credit for ECON 250 may not take this course for credit.

## ECON 252 Economic History After the Industrial Revolution (3 credits)

This course is an introduction to the main economic trends in the era of sustained growth and development which accelerated with the Industrial Revolution and continues to the present. The emphasis is on Europe with some coverage of North America and the colonial/ developing world.
NOTE: Students who have received credit for ECON 250 may not take this course for credit.

## ECON 298 Selected Topics in Economics (3 credits)

ECON 299 Selected Topics in Economics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## ECON 301 Intermediate Microeconomic Theory I (3 credits)

Prerequisite: ECON 201, 203; MATH 209 or equivalent. Theory and measurement of demand, theory of consumer behaviour, production, theory of the firm, and cost and revenue analysis.

## ECON 302 Intermediate Microeconomic Theory II (3 credits)

Prerequisite: ECON 301. Market structures (perfect competition, monopoly, oligopoly), industrial concentration, factor markets, income distribution, economic efficiency, general equilibrium, welfare economics.

## ECON 303 Intermediate Macroeconomic Theory I (3 credits) <br> Prerequisite: ECON 201, 203; MATH 209 or

 equivalent. The course introduces basic aggregative models to explore different theories on the determination of national income, interest rates and exchange rates. Topics covered include the definitions and measurements of indicators of economic activity; the components of aggregate supply and aggregate demand; thesupply and demand for money; and the dynamics of national debt and deficit. The role of macroeconomic policy, such as fiscal and monetary policy, is also examined.

## ECON 304 Intermediate Macroeconomic Theory II (3 credits)

Prerequisite: ECON 303. This course builds on the concepts developed in ECON 303 by introducing additional features to the basic models, such as the formation of expectations and attributes of the labour market, and then using these models to explore different theories concerning the determination and the evolution of major aggregate variables, economic growth and business cycles. The role of macroeconomic policy, with an emphasis on Canada, is also examined.

## ECON 311 Economic Development (3 credits)

Prerequisite: ECON 201, 203. The course investigates comparative economic development, with special attention to problems of capital formation, population growth, quality of labour force, and social and cultural attitudes towards economic modernization. Theories of economic development are evaluated in the context of the realities of historical patterns and the varying degrees of ability to achieve modernization.

## ECON 315 The Economic Development of Québec (3 credits)

Prerequisite: ECON 201, 203. This course reviews past and present trends in the economic development of Québec. Emphasis is placed on the economic growth of Québec since the Second World War. Attention is given to the regional aspects of Québec's growth problems.

## ECON 318 Canadian Economic Policy

 and Institutions (3 credits) Prerequisite: ECON 201, 203. This course focuses on economic policies and institutions related to contemporary issues in the domestic economy. It is guided by the application of economic principles to such issues as regional disparities, income distribution and inequality, intra-provincial trade, social security policies, welfare programs, foreign ownership and control, competition policy, government regulation of business, unemployment, inflation, and environmental policy.NOTE: Students who have received credit for ECON 316 may not take this course for credit.

ECON 319 International Economic Policy and Institutions (3 credits) Prerequisite: ECON 201, 203. This course focuses on economic policies and institutions related to issues such as protectionism, regionalism, and globalization. Selected topics in exchange rate and currency convertibility, liberalization of economic systems, and international economic development are also covered. NOTE: Students who have received credit for ECON 317 may not take this course for credit.

## ECON 324 Economic Data Analysis

 (3 credits)Prerequisite: ECON 201, 203, 222. The objective of this course is to familiarize students with the techniques of data retrieval, manipulation, and analysis. Particular emphasis is placed on the CANSIM retrieval system, database programs, spreadsheet analysis, and statistical packages.
NOTE: Students who have received credit for ECON 323 may not take this course for credit.

ECON 325 Mathematics for Economists I (3 credits)
Prerequisite: ECON 201, 203; MATH 209 or equivalent. This course introduces students to core topics in algebra and optimization techniques. The topics covered include vector spaces and linear transformations; matrix operations; characteristic values and vectors; matrix differentiation. In addition, the course covers a review of constrained and unconstrained optimization with economic applications; Taylor series representation, implicit function theorem, and related topics.
NOTE: Students who have received credit for MAST 234 or MATH 251 or 282 may not take this course for credit.

## ECON 326 Mathematics for Economists II

 (3 credits)Prerequisite: ECON 325. This course covers more advanced topics in optimization methods and introduces students to techniques in economics dynamics, as well as applications of integration. Topics include quadratic forms and second-order conditions, Kuhn-Tucker theory, the maximum principle, difference and differential equations, discounting and the rudiments of probability theory.
NOTE: Students who have received credit for MAST 235, MATH 252 or 283 may not take this course for credit.

ECON 331 Money and Banking (3 credits) Prerequisite: ECON 201, 203. Overview of a monetary economy: nature, forms, and the economic role of money. Monetary standards: markets, prices, and the value of money; the payments system; financial markets. Determinants of size and distribution of wealth portfolios. Supply of money: measure, composition, and size determination. The economic role of commercial banks and non-bank financial intermediaries. Central banking and monetary policy. The international monetary system. (Topics covered within the Canadian banking institutional framework.)

## ECON 337 Public Sector Economics

 (3 credits)Prerequisite: ECON 201, 203. This course examines government fiscal activity within the context of a market economy. Rationale for public intervention is reviewed in terms of market failure and the consequent inefficiency in resource allocation. An overview of the spending and taxation
policies in the Québec-Canada context is presented. This is followed by an examination of topics such as public-spending growth, public goods, externalities and collective decision making.
NOTE: Students who have received credit for ECON 335 or 336 may not take this course for credit.

## ECON 350 Economic History of Canada

 (3 credits)Prerequisite: ECON 201, 203. This course introduces the student to Canadian economic development focusing on the period after Confederation. The course treats the subject in a thematic, rather than a chronological, fashion and places emphasis on conflicting schools of thought and their reflection in government policies.
NOTE: Students who have received credit for ECON 351 may not take this course for credit.

## ECON 361 Industrial Organization

 (3 credits)Prerequisite: ECON 201, 203. This course develops the relationship of the firm to various forms of market structure. The course focuses on the objectives of the corporation, corporate interdependence, and the government control of industry. A study of policy matters centres on anti-trust and corporate regulation, with respect to both the legislative and economic aspects.

## ECON 362 Economics of the Firm

 (3 credits)Prerequisite: ECON 201, 222. This course stresses the application of economic principles and methodologies to the decision-making process of the firm, with an emphasis on the role of risk and uncertainty. Topics include decision-making criteria, demand analysis and estimation, cost analysis and estimation, pricing theory under various market structures, applied topics in pricing, and the impact of government on the firm. This course is primarily of interest to Commerce students, but is open to others as well.

## ECON 370 Comparative Economic Systems ( 6 credits)

Prerequisite: ECON 201, 203. A comparative study of contemporary economic systems. While mainly concerned with the institutional features of contemporary free-market economics, the course also deals with their counterparts: the systems of a command economy and a socialist market economy. Of primary interest are the institutions, mechanisms, and policies which govern allocation, efficiency, growth, and distribution of income, with emphasis on the historical background of the institutions and the social, political, and ideological influences which continue to shape them.

## ECON 377 The Asia-Pacific Rim Economies (3 credits)

Prerequisite: ECON 201, 203. This course focuses primarily on those Asia-Pacific Rim
countries that have achieved relatively high growth, and have undergone significant economic transformations over the past two decades. Among other things, it investigates China's transformation towards a market economy, Japanese industrial development strategies, and economic development in Taiwan and South Korea. As well, institutions and associations that reinforce these trends will be studied.

## ECON 379 The Irish Economy and the European Union (3 credits)

Prerequisite: ECON 201, 203. This course has a dual objective: to examine economic developments and recent growth in the Irish economy, and to examine the structure and importance of Ireland's participation in the European Union in a global and European context. Particular issues addressed are: high growth in developed economies, migration, taxation policy, integration and trade, currency areas and capital mobility. NOTE: Students who have received credit for this topic under an ECON 398 number may not take this course for credit.

## ECON 381 Labour Economics (3 credits)

 Prerequisite: ECON 201, 203. The general objective of this course is to acquaint the student with various theoretical and empirical issues in the area of labour economics. Particular emphasis is placed upon the relation between theoretical frameworks and their empirical counterparts in Canada. Topics include the theory of wage determination, the effects of minimum wages, human capital theory, the economics of discrimination, and the economics of the household.ECON 382 Industrial Relations I (3 credits) Prerequisite: ECON 201, 203. A study of the general and practical problems that arise in the labour field, such as collective bargaining, the legal framework for the settlement of industrial disputes, the weapons of industrial conflict; the labour movement; contemporary labour issues, such as automation, cost-push inflation, and structural employment.

## ECON 386 Economics of Human

 Resources (3 credits)Prerequisite: ECON 201, 203. A study of recent contributions by economists to the understanding of and solution to social problems which society currently faces in the areas of crime, health, education, and welfare. In addition, specific federal and provincial governmental policies in these areas are analysed with the standard tools of economics.

## ECON 391 Economics of the Environment (3 credits)

Prerequisite: ECON 201, 203. The subject of this course is environmental quality. It proceeds through an analysis of the relationships among the natural environment, economics, and institutions. The objective is to depict the problem of
environmental quality as an economic problem whose solution demands major changes in economic, political, and legal institutions. Attention is also given to policies of collective environmental actions in which the effective management of common property resources is discussed. The course concludes with a discussion of some broader issues, such as the consistency of improved environmental quality with continued economic and population growth.

ECON 392 Urban Economics (3 credits)
Prerequisite: ECON 201, 203. This course focuses on the basic issues of economic growth and stagnation, urban land use, the problems of the urban public economy, and special urban problems, such as transportation, congestion, poverty, housing, urban renewal, and zoning.

## ECON 393 Economics of Uncertainty

 (3 credits)Prerequisite: ECON 201, 203, 222. This course focuses on the basic rules governing the application of statistical concepts such as means, variances, covariances, to the economic aspects of the problem of uncertainty. Applications in microeconomic analysis include economic aspects of insurance as well as issues in finance such as portfolio selection, efficient markets, and the capital-asset pricing models. Applications in macroeconomics include the analysis of business cycles and problems associated with the characterization of expectations as in models of inflation. NOTE: Students who have received credit for this topic under an ECON 398 number may not take this course for credit.

ECON 398 Selected Topics in Economics (3 credits)

ECON 399 Selected Topics in Economics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## ECON 401 Advanced Microeconomic Theory (3 credits)

Prerequisite: ECON 222, 302, 326. Selected topics in microeconomic analysis including methodology, general equilibrium analysis, welfare economics; theory of the firm, factor pricing, and income distribution capital theory. Primarily for Major, Specialization, and Honours students.

## ECON 403 Advanced Macroeconomic Theory (3 credits)

Prerequisite: ECON 222, 304, 326. Selected topics in macroeconomic analysis including construction of models of the economy encompassing the labour, product, and financial markets; the role of monetary and fiscal policies; classical, Keynesian, and post-Keynesian models. Primarily for Major, Specialization, and Honours students.

## ECON 409 History of Early Economic

 Thought (3 credits)Prerequisite: ECON 222, 302, 304. This course covers the evolution of economic thought from the Greek philosophers up to (and including) Classical economics. It seeks to provide the student with an outline of the development of economic analysis in this period.
NOTE: Students who have received credit for ECON 408 may not take this course for credit.

## ECON 410 History of Modern Economic

 Thought (3 credits)Prerequisite: ECON 222, 302, 304. This course covers the evolution of economic thought from the Historical School to modern controversies in economic reasoning, which includes a comparative treatment of Keynesian economics and Monetarism.
NOTE: Students who have received credit for ECON 408 may not take this course for credit.

## ECON 413 Economic Growth and Fluctuations (3 credits)

Prerequisite: ECON 222, 302, 304. A review of some theories of causes of economic fluctuations. Discussion of the economic climate and of stabilization policies.

ECON 414 Economic Development: Policy Analysis (3 credits)
Prerequisite: ECON 222, 302, 304. This course offers an advanced treatment of selected topics related to issues in economic development. Particular emphasis is placed on models of growth and structural change, such as the two-gap model, input-output analysis, and computable general equilibrium models. Trade and industrial policies, fiscal and financial policies, as well as public-sector policies including taxation, spending, and cost-benefit analysis are also discussed. NOTE: Students who have received credit for ECON 312 or 411 may not take this course for credit.

ECON 421 Econometrics I (3 credits) Prerequisite: ECON 222, 326. This course develops the simple and multiple classical regression models. The problems of misspecified structures, multi-collinearity, and forecasting are also presented.

ECON 422 Econometrics II (3 credits) Prerequisite: ECON 222, 421. This course is a continuation of ECON 421. It deals with the problems of random-error correlation, stochastic regressors, and the simulation and the estimation of multiple-equation models.

## ECON 423 Applied Econometrics (3 credits)

Prerequisite: ECON 222, 302, 304, 325. This course is designed to enable students to apply econometric techniques through computer analysis of case studies in model building. Topics include the analysis of aggregate consumption,
construction of price indices, the estimation of production and expenditure functions, estimation and forecasting with univariate time series processes, an application with discrete dependent variables.

## ECON 425 Mathematics for Advanced

 Study in Economics (3 credits)Prerequisite: ECON 222, 302, 304, 326. This course gives students the requisite mathematical background for graduate studies in economics. Topics include algebraic methods, and static and dynamic optimization techniques needed for the study of economic theory and econometrics. Difference and differential equations are also examined.

## ECON 432 Advanced Monetary Theory

(3 credits)
Prerequisite: ECON 2२2, 302, 304. The nature of the monetarist-Keynesian controversy and critical appraisal of the IS-LM-AS model. Special topics: theory and evidence of term structure of interest rates, post-Keynesian demand for and supply of money in aggregative and disaggregative economic models. Theory of macroeconomic policy. Transmission mechanisms, policy coordination, lags, international constraints, and other problems.

ECON 433 Financial Economics (3 credits) Prerequisite: ECON 2२2, 302, 304. This course introduces students to the theory and practice of finance as seen from the economist's point of view. In particular, it examines the following topics: the theory of decision making under uncertainty; the basic portfolio models, such as the CAPAM and the APT; equilibrium aspects of financial markets, such as the role of arbitrage in the pricing of financial assets; the pricing of derivative securities, such as options.
NOTE: Students who have received credit for this topic under an ECON 498 number may not take this course for credit.

## ECON 436 The Economics of Taxation

 (3 credits)Prerequisite: ECON 222, 302, 304. This course focuses on the effects of taxation on economic behaviour. Major topics considered include the excess burden of taxation in decisions to supply effort, savings and investment, the incidence of corporate taxation, and the design of commodity taxation. Among policy issues, topics such as tax evasion, and the taxation of multinational enterprises are examined.
NOTE: Students who have received credit for ECON 435 may not take this course for credit.

## ECON 437 Economics of Public

Expenditure (3 credits)
Prerequisite: ECON 222, 302, 304. This course examines the economic consequences of public expenditure on the economy. Topics covered include public goods, externalities, the theory of welfare measurement, public investment criteria,
pricing policy of public enterprises, public choice and intergovernmental fiscal relations.
NOTE: Students who have received credit for ECON 435 may not take this course for credit.

## ECON 442 International Economics: Trade Theory (3 credits)

Prerequisite: ECON 222, 302, 304. The basis of international trade, gains from trade, factor-price equalization, the tariff, Canadian commercial policy, trade and development, economic integration.

## ECON 443 International Economics: Finance (3 credits)

Prerequisite: ECON 222, 302, 304. This course is an introduction to theory of national income determination in open economies with capital mobility. It includes analyses of balance of payments, exchange rate, and the role of monetary and fiscal policies under different exchange rate regimes. Among other issues covered are international policy coordination, optimum currency areas, and features of the international monetary system.

## ECON 450 Advanced Economic History (3 credits)

Prerequisite: ECON 2२2, 302, 304. Advanced topics in economic history, with emphasis on the application of economic theory to specific historical questions.

## ECON 461 Industrial Organization (3 credits)

Prerequisite: ECON 222, 302. This course examines departures from the perfect competition paradigm to analyse economic behaviour in an industrial setting. An industry consists of a number of firms which interact strategically to maximize their profits. Topics addressed include measures of market structure, theories of oligopoly, effects of potential entry, product differentiation and advertising, technological change, vertical integration, and monopoly and merger issues.

## ECON 462 The Corporate Economy (3 credits)

Prerequisite: ECON 222, 302. This course investigates the nature and behaviour of the firm. Economic rationalizations are presented for organizing production within a firm. The economic effects of various organization structures are examined. Topics addressed include team production, contractual models of the firm, principal-agent theory, tournaments, and the relationship between managers, shareholders, and the outside market.

## ECON 463 Economics of Regulation

 (3 credits)Prerequisite: ECON 222, 302. This course is devoted to an examination of the economic aspects of governmental regulations. Besides a critical review of the economic theories of regu-
lation, the spectrum of the existing regulatory network, and empirical investigations aimed at discerning cost-benefits, the course focuses on the process of regulatory reforms in all aspects of the Canadian economy.

## ECON 464 Game Theory, Information, and

 Economic Modelling (3 credits)Prerequisite: ECON 222, 302, 304. This course covers topics in non-cooperative game theory and information economics such as dominance, Nash equilibrium, subgame perfection, repeated games, bayesian equilibrium, sequential equilibrium, signalling, bargaining, auctions, moral hazard, adverse selection, and bounded rationality. The course focuses on applications, such as auditing games, nuisance suits, product quality, lemons models, entry deterrence, insurance models, winner's curse, innovation and patent races. NOTE: Students who have received credit for this topic under an ECON 498 number may not take this course for credit.

## ECON 465 The Economics of <br> Professional Sport (3 credits)

Prerequisite: ECON 222, 302, 304. This is a course in applied microeconomic theory. Various observations on the state of professional sports are explained using economic theory. Evidence of the statistical relevance of such explanations is also investigated. Issues addressed include the magnitude of the earnings of professional sports stars; the impact of free agency on competitive balance in sports leagues; the value of professional sports teams to cities, and whether such valuation justifies public subsidization of franchises or arenas. NOTE: Students who have received credit for this topic under an ECON 498 number may not take this course for credit.

## ECON 473 Economics of Socialism

(3 credits)
Prerequisite: ECON 302. This course analyses the theoretical aspects of various types of socialist economies: market, centrally planned, and worker-managed. Definitions and models of the various forms are developed and compared with a capitalist model and with existing socialist economies such as those of Cuba, China, Yugoslavia, and the U.S.S.R.

## ECON 481 Advanced Labour Economics I

 (3 credits)Prerequisite: ECON 222, 302, 304. The course deals with advanced topics in labour economics. Consequently, a review of microeconomic concepts such as inter-temporal decision-making, uncertainty, moral hazard, adverse selection and market signalling is needed. The following topics are covered: labour supply and demand, wage differentials, human capital theory, employment relationship theory, unions and wage bargaining, job search theory, implicit contracts, and the theory of unemployment.

ECON 482 Economics of Personnel and Industrial Relations (3 credits) Prerequisite: ECON $222,302,304$. The main objective of this course is to describe how modern microeconomics and modern labour economics can be used to solve practical human resource and personnel issues. These include hiring and firing practices, optimal payment and compensation structure, unions and strike behaviour.

## ECON 483 Advanced Labour Economics II (3 credits)

Prerequisite: ECON 2२2, 302. This course covers a series of topics in labour economics. In the first part of the course, students analyse hiring standards of firms, pay and productivity, and the theory of human capital. The second part focuses on mobility and labour market discrimination.

## ECON 491 Advanced Environmental Economics (3 credits)

Prerequisite: ECON 2२2, 302. This course provides a survey, from the perspective of economics, of public issues regarding the use of environmental resources, ecosystems and the management of environmental quality. The course covers both conceptual and methodological topics with recent and current applications. It begins with an introduction to the theory and methods of environmental and natural resource economics and concepts of sustainable development. Then the emphasis is shifted to the optimal use of natural resources, both non-renewable resources (mineral and energy) and renewable resources, and the valuation of environmental resources. In the last part of the course, we examine national and international environmental policy issues, including intergenerational equity and environmental ethics.

ECON 493 Regional Economics (3 credits) Prerequisite: ECON 2२2, 302, 304. This course introduces the student to the methods and techniques of regional economic analysis, and their application to the problems of regional economies within Canada. Among the microeconomic topics covered are the location behaviour of firms and households, and the factors determining the allocation of land among
alternative competing uses. Macroeconomic topics include the measurement and analysis of regional income and growth levels, cyclical changes in those levels, and interregional differences in growth rates. Policy problems pertinent to Canadian regions are stressed throughout the course.

## ECON 495 Economics of Transportation and Communications (3 credits)

Prerequisite: ECON 222, 302. Congestion problems and solutions, pricing, costs, demand, and regulation in transportation. Some applications to communications.

## ECON 496 Natural Resource Economics (3 credits)

Prerequisite: ECON 2२2, 302, 304. This course focuses on the problems of the finiteness of the natural resources base in Canada and in the world, and on an analysis of the demand for and supply of natural resources and energy. The course also discusses the economic aspects of a selected group of conservation measures (financial incentives, reallocation of property rights, regulation).
NOTE: Students who have received credit for ECON 396 or for this topic under an ECON 498 number may not take this course for credit.

## ECON 497 Income Distribution and Economic Inequality (3 credits)

 Prerequisite: ECON 222, 302, 304. This course examines the extent and dimensions of economic inequality among households both domestically and internationally. Topics covered include theories of income inequality, wealth inequality, recent trends in polarization, poverty, intergenerational bequests, the welfare state, and the role of government economic policy.
## ECON 498 Advanced Topics in Economics (3 credits) <br> ECON 499 Advanced Topics in Economics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

### 31.090 <br> EDUCATION



Programs
(For Teaching of English as a Second Language, see §31.090.1; for Adult Education, see §31.090.2) Students are responsible for satisfying their particular degree requirements. The superscript indicates credit value.

The 42-credit Major in Information Studies consists of 30 Information Studies (INST) credits, nine Education (EDUC) credits, and three Interdisciplinary Studies (INTE) credits. The curriculum focuses on the creation, organization, retrieval, distribution, and utilization of information together with its relationship to learning.
Information Studies students must take the core curriculum of 42 credits required for a Major in Information Studies. In addition, students are encouraged, with the permission of the Information Studies Program, to combine the core curriculum with a departmental Major program. It should be noted that in addition to completing the Information Studies Major, students must meet the Faculty of Arts and Science degree requirements set forth for the second program of study. The core curriculum component of the Information Studies Major may not count for credit within the core requirements of the selected second Major, and vice versa.
42 BA Major in Information Studies Stage 1
*3 or 6 EDUC $210^{6}, 230^{3}$
Stage II
12 INST $212^{3}, 220^{3}, 260^{3}, 280^{3}$
12 INST $290^{3}, 320^{3}, 330^{3}, 350^{3}$

3 INTE 296 ${ }^{3 * *}$
Stage III
6 INST 420 ${ }^{3}, 430^{3}$
*3 or 6 EDUC $230^{3}, 422^{3}, 426^{3}$
*Students must complete a total of nine EDUC
credits, three or six in Stage I and three or six in Stage III.
**Any equivalent three credits satisfy this component of the program. See §200.7.

24 Minor in Education
24 Chosen from EDUC 2016, $210^{6}, 230^{3}$, $305^{3}, 306^{3}, 321^{3}, 398^{3}, 399^{6}, 405^{3}, 422^{3}$, $423^{3}, 426^{3}, 427^{3}, 434^{3}, 450^{3}, 454^{3}, 498^{3}$, $499{ }^{6}$

120 BA Specialization in Early Childhood and Elementary Education
81 Group A
ARTE 2013'; EDUC $210^{6}, 211^{3}, 222^{3}, 260^{3}$, $264^{3}, 295^{3}, 296^{3}, 297^{3}, 301^{3}, 311^{3}, 380^{3}$, $381^{3}, 382^{3}, 387^{3}, 388^{3}, 395^{3}, 396^{3}, 400^{3}$, $445^{3}, 450^{3}, 454^{3}, 493^{3}, 494^{3}, 495^{3}, 496^{3}$
12 Group B Chosen from EDUC $230^{3}, 305^{3}, 321^{3}$, $383^{3}, 384^{3}, 385^{3}, 389^{3}, 405^{3}, 406^{3}, 422^{3}$, $423^{3}, 426^{3}, 427^{3} 434^{3}$
27 Group C
Students must also take a minimum of 27 credits outside the Department of Education
NOTE 1: This program is open to full-time students only. In addition to the application submitted to the University, Specialization applicants MUST complete an additional application which may be obtained from the Early Childhood and Elementary Education secretary. NOTE 2: Upon successful completion of the BA Specialization in Early Childhood and Elementary Education program and application to the Birks Student Service Centre, students may be recommended to the Québec Teachers Certification Service for a Québec permanent teaching diploma, valid for teaching kindergarten and cycles 1 to 3 (grades 1 to 6 ).

To remain in the Early Childhood and Elementary Education Specialization program and to be recommended for certification, students must:

1. achieve at least a " $B$ " grade in each of the following practicum courses: EDUC 295, 296, 297, 395, 396, 493, 494, 495, 496; and
2. achieve at least a "C+" grade in each of the following methods courses: EDUC 222, 301, 380, 381, 382, 383, 385, 387, 388, 389.
Students who obtain a grade that is below the above required level will be placed on conditional standing within the program and will be so informed in writing. Students will be allowed to repeat the course(s) in question only once in order to achieve the required grade. (For the status of this grade as part of the student record, see §16.3.12.)
Students who fail to achieve the above minimum grades in two internships/methods courses (i.e. failing the same internship/methods course twice or two different internships/methods courses) will be required to withdraw from the Early Childhood and Elementary Education Specialization program (see §16.3.12).
NOTE 3: Students who intend to teach Catholic religious and moral instruction are advised to take EDUC 383 or 389 in addition to THEO 201, 204, or 211.

## 45 BA Major in Child Studies

21 EDUC $210^{6}, 211^{3}, 250^{3}, 260^{3}, 311^{3}, 374^{3}$
9 From area of primary concentration*
6 From area of secondary concentration*
9 Chosen from EDUC $230^{3}, 321^{3}, 406^{3}$, $422^{3}, 426^{3}, 498^{3}$
*See areas of concentration.

## Areas of Concentration

A. Administration in Childhood Settings (9 credits)
9 EDUC $302^{3}, 303^{3}, 402^{3}$
B. Exceptional Children in Childhood Settings (9 credits)
9 EDUC $450^{3}, 490^{3}, 491^{3}$
C. Children and Technology (9 credits)

9 EDUC $305^{3}, 306^{3}$, $405^{3}$

## CERTIFICATE IN EDUCATION*

The Department of Education offers a 30 -credit program leading to the Concordia University Certificate in Education and certification from the Provincial Department of Education.
NOTE: This program is restricted to individuals presently employed in a recognized educational institution in Québec and holding a provisional teaching authorization.

## Admission Requirements

1. Evidence of full-time employment with a recognized institution in Québec.
2. Possession of a Québec provisional teaching authorization.

Admission limited.
Courses
EDUC $201^{6}$
EDUC $445^{3}$
EDUC $210^{6}$ EDUC $471^{6}$
either EDUC $480^{3}, 481^{3}$, or an equivalent course in teaching methodology.
Six additional undergraduate credits in Education chosen in consultation with the director of the program.

Students may transfer into the Certificate program up to 12 credits earned in an incomplete degree or Certificate program or as an Independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

NOTE:

1. The student must meet the minimum scholarity requirements set by the Provincial government before being recommended for certification. See the conditions for certification following the BA Specialization in Early Childhood and Elementary Education above.
2. This program is not open to teachers of vocational subjects.
*Admission suspended for 2003-04.
For other programs which may be of particular interest to teachers, see §23.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## Education

EDUC 201 The Nature and Function of Teaching ( 6 credits)
An introduction to the purpose, theories, and methods of teaching.

## EDUC 210 Psychology of Education (6 credits)

This course introduces students to a broad range of content in educational psychology, including its scope and methods, learning motivation, growth and development, adjustment, individual differences, guidance, and concept of self.

EDUC 211 Child Development I (3 credits) Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, or Major in Child Studies. This course provides an introduction to current theory (e.g. cognitive, social-cognitive, social learning) about children's development and covers various domains of development (social, emotional, cognitive, physical) from conception to age 12. The implications of children's development in relation to various contexts (e.g. family, neighbourhood, peers, education) are discussed.

## EDUC 222 Exploring Movement with Children (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization. From a multi-disciplinary perspective, this course examines the following topics: the relationship between movement and self-knowledge, psychomotor development, and the role of physical activity in primary education. The course addresses the teacher's role in incorporating movement into the curriculum for all children, including those with special needs through the use of specific techniques and activities.

## EDUC 230 Introduction to Philosophy of Education (3 credits)

This course introduces the student to the content and form of several major educational theories, and to conceptual and logical proce-
dures of philosophizing about education, with particular reference to teaching and learning. NOTE: Students who have received credit for EDUZ 230 may not take this course for credit.

## EDUC 250 Library Research Practices in Education (3 credits)

This course is designed to introduce students to basic library research practices used in the field of education and its related disciplines. It familiarizes students with a variety of information sources in both print and non-print formats. Emphasis is placed on a systematic search strategy and the use and evaluation of these information tools. Topics such as outlining and bibliographic formats are covered as part of the library research process.
NOTE: Students who have received credit for LIBS 250, INST 250, INSZ 250, or for this topic under an LIBS 298 number may not take this course for credit.

## EDUC 260 Historical and Philosophical Foundations of Early Childhood and Elementary Education (3 credits)

Prerequisite: Thirty credits or permission of the Department; enrolment in Early Childhood and Elementary Education Specialization, or Major in Child Studies. This course is an introduction to the historical and philosophical foundations of early childhood education. The development of institutions for the care and education of young children is discussed in relation to changes in the family, concepts of childhood, and educational theories. Students use methods of historical and philosophical inquiry to examine current issues in early education, including school readiness, early literacy, integration, multiculturalism, and public policy. The objective is to provide students with the basis for identifying and critiquing problems in education.

## EDUC 264 Communication: Child, Parent and Teacher (3 credits) <br> Prerequisite: Thirty credits or permission of the Department; enrolment in Early Childhood and Elementary Education Specialization. This course

focuses on the role parents play in the various stages of the child's academic, social, and emotional development. The format for this course is unique in that parents of the children in our observation nursery are involved, and students interact with them by conducting and participating in parent-teacher seminars. Topics include parenting, the impact of the family on the child's classroom behaviour, child abuse, cultural issues, disciplinary measures at home and in school, the coordination of home-andschool academic goals, and achievement motivation.

## EDUC 295 Practicum I: Prekindergarten

 Teaching (3 credits)Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; students must be enrolled in EDUC 296 in the same semester and in their first year of the ECEE program. This practicum gives students firsthand knowledge of the importance of early education. It permits students to develop preliminary skills in observing, assessing, and meeting the needs of individual children, articulating educational objectives, working effectively with small groups, and planning and implementing a play-based curriculum. Students are placed in a prekindergarten class one day a week for a total of 60 hours.
NOTE: Students who have received credit for EDUC 271 may not take this course for credit.

## EDUC 296 Prekindergarten Teaching

 Seminar (3 credits)Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; students must be enrolled in EDUC 295 in the same semester. This course supports EDUC 295 by offering a thorough introduction to theoretical and applied aspects of early childhood education through a weekly seminar consisting of lectures, discussions, and video presentations on such topics as the educational and developmental needs of young children, models of education, the role of the teacher, play-based curriculum and instruction, health and safety issues, and the design of appropriate prekindergarten learning environments.
NOTE: Students who have received credit for EDUC 272 may not take this course for credit.

## EDUC 297 Practicum II: Observation and Evaluation in Education

 (3 credits)Prerequisite: EDUC 295, 296; enrolment in Early Childhood and Elementary Education Specialization. The purpose of this course is to teach students how to conduct evaluations at the elementary-school level. Students learn observation techniques, documentation procedures, authentic assessment, and formative and summative evaluation. Students learn how to create a dynamic profile of the child and how to prepare reports for parents, administrators, and specialists. Students conduct observations in
recognized educational institutions (40 hours). NOTE: Students who have received credit for EDUC 371, 373, and 375 may not take this course for credit.

## EDUC 298 Selected Topics in Education (3 credits)

EDUC 299 Selected Topics in Education (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## EDUC 301 Integrating Computers into the Elementary Classroom (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization. This course provides an introduction to theoretical and practical knowledge regarding the use of computers in elementary school classrooms. Assignments are designed to provide students with hands-on experience with the computer. Topics include social interaction and equity, problem-solving skills, software evaluation, interactive technologies, and curriculum planning.
NOTE: Students are expected to have some basic computer skills (at least wordprocessing) prior to enrolling in this course. Students with no previous experience in using computers are advised to take INTE 290 before enrolling in this course.

EDUC 302 Administration in Childhood Settings (3 credits)
This course provides students with a foundation in administering services for children with a focus on child care. Issues reviewed include quality, the role of government, curriculum, staffing, leadership styles, financial matters, and the organizational framework.

EDUC 305 Technology for Educational Change I (3 credits)
Prerequisite: INTE 290 or permission of the Department. This course provides an introduction to advances in the theory, research, and practice of educational technology. Projects and activities allow for a diversity of interests.

## EDUC 306 Technology for Educational Change II (3 credits)

Prerequisite: EDUC 305. This course is intended for students who wish to advance their media design and development skills. Building on the theoretical and practical foundations established in EDUC 305, this course provides students with an opportunity to design and develop an instructional package aimed at addressing an identified instructional need.

EDUC 311 Child Development II (3 credits)
Prerequisite: EDUC 211; enrolment in Early Childhood and Elementary Education Special-
ization, or Major in Child Studies; 30 credits. This course is designed to provide students with an in-depth review of the developmental, psychological, and socio-cultural aspects of the child and the family. Emphasis is placed on structural elements related to the modern family (e.g. family size, developmental tasks), family relations (e.g. transition to parenthood, parenting styles, early relationships) and problems and issues (e.g. employed mothers, divorce, child care, cultural differences, teenage mothers). NOTE: Students who have received credit for EDUC 262 may not take this course for credit.

## EDUC 321 Sex Role Socialization in the

 School (3 credits)This course focuses upon how children at the elementary- and secondary-school level are socialized for different work roles, and how work segregation has occurred on the basis of this process. The role of schools and curriculum is examined in relation to cultural changes in social roles.

## EDUC 374 Child Studies Practicum

 (3 credits)Prerequisite: 30 credits in the Major program. This course is designed to provide students with training in observation and evaluation procedures. Students study children in a variety of childoriented environments and programs. Instruction focuses on evaluative methodology, e.g. observational methods and interactional analyses. Students are required to complete a one half-day per week internship in addition to the regularly scheduled class time. Appropriate field placements for this course include recreation/community centres, hospitals, daycare centres, libraries, museums, fine arts centres.
NOTE: Students who have received credit for EDUC 371 may not take this course for credit.

## EDUC 380 Teaching Language Arts I

 (3 credits)Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course enables students to acquire the necessary skills for developing a stimulating and appropriate language arts program for kindergarten and primary grades. Current theories of literacy development and implications for planning and instruction are addressed. The course focuses on listening, speaking, reading, and writing, emphasizing the integration of language arts activities into other subject areas.

## EDUC 381 Teaching Language Arts II

 (3 credits)Prerequisite: 30 credits including EDUC 380; enrolment in Early Childhood and Elementary Education Specialization. This course is a continuation of EDUC 380 with special emphasis on teaching language arts in grades 3 to 6 . Students become familiar with MEQ program guidelines, and various ways to organize and evaluate their implementation.

EDUC 382 Teaching Science Concepts in the Elementary Classroom (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course examines areas of science which are relevant to elementary education and emphasizes the development of the spirit of scientific enquiry. Resource materials, teaching methodology, and classroom activities are examined and evaluated in light of the MEQ guidelines. Assignments emphasize developing activities for classroom use.

EDUC 383 Promoting Moral and Spiritual Attitudes and Values in Young Children (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course is designed to introduce the early childhood teacher to the various issues involving the development of moral judgement and reasoning in the young child. Cultural, social, cognitive, and emotional factors influencing the growth of morality are discussed. The major focus is on examining methods and techniques to enhance the personal development of positive social behaviours (i.e. helping, sharing, caring, etc.) in preschool and primary level children.

## EDUC 384 Teaching Social Studies in Early Childhood and Elementary School (3 credits)

 Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course examines the teaching of the human sciences to young children.
## EDUC 385 Teaching a Second Language in Early Childhood and Elementary School (3 credits)

Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course is designed to give teachers a background in current theories of language acquisition and second language learning. Teaching methodologies such as immersion, enrichment, and core/complementary curricula are studied and resource materials are examined and evaluated. Assignments include the development of appropriate classroom activities at the elementary level.

## EDUC 387 Teaching Mathematics I

 (3 credits)Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. Programs and methodologies for teaching numerical concepts typically acquired by the preschooler and the primary child are studied and evaluated. Relevant resource materials are examined and assignments focus upon development of activities for the classroom.

## EDUC 388 Teaching Mathematics II

 (3 credits)Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course concentrates on topics such as geometry, classification, measurement, mathematical language, and the use of the calculator according to the MEQ elementary mathematics program guidelines. The use of manipulative aids in instructing children is explored and illustrated. Relevant resource materials are examined and assignments focus upon the development of activities for classroom use.

EDUC 389 Catholic Moral and Religious Teaching in the Context of Québec Schools (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course is designed to provide early childhood educators with the skills to develop a program of Catholic moral and religious instruction within the context of Québec schools. The school curriculum, resource materials, and teaching methodologies for the primary and preschool child are studied.

## EDUC 395 Practicum III: Kindergarten Teaching (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 30 credits including EDUC 295, 296, 297; students must be enrolled in EDUC 396 in the same semester. This internship is an eight-week ( 200 hours) supervised student-teaching experience in a full-day kindergarten classroom. Students share in the daily work of their cooperating teachers, and progress gradually from being participant observers working with small groups to taking charge of the whole class. Students practice their skills in activity planning, intervention strategies, the evaluation of student learning, and the management of classroom routines. NOTE: Students who have received credit for EDUC 473 may not take this course for credit.

## EDUC 396 Kindergarten Teaching Seminar (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 30 credits including EDUC 295, 296, 297; students must be enrolled in EDUC 395 in the same semester. This seminar complements EDUC 395 by providing the opportunity, means, and impetus for students to reflect critically on their teaching philosophy and practice. Topics include the development of appropriate and stimulating learning environments, Ministry of Education of Québec kindergarten program guidelines, planning and implementation of learning centres, teaching centres, teaching the "whole" child, teacher-parent relationships, and other current issues in kindergarten education.
NOTE: Students who have received credit for EDUC 474 may not take this course for credit.

## EDUC 398

Selected Topics in Education (3 credits)

EDUC 399 Selected Topics in Education (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## EDUC 400 Teaching Across the <br> Curriculum (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; EDUC 380. Using language arts and the social sciences as the starting point, this course outlines different models for integrating school subjects in curriculum programming. Special attention is given to social science methodology, thematic planning and project work, and to the use of literature and drama. Students examine the links between the different programs of study developed for Québec schools by the MEQ, and their overall implications for curriculum planning.

## EDUC 402 Diversity Issues in Childhood (3 credits)

Prerequisite: 30 credits. This course explores the diversity of contemporary Canadian childhood, including issues related to immigrant children and families, multilingual issues, and cultural differences in child-rearing. The course reviews theoretical and applied approaches for providing services to children and families from culturally diverse backgrounds.

## EDUC 405 Children and Technology (3 credits)

Prerequisite: 30 credits. This course examines the interaction between children and technology from a socio-cultural perspective, including the effects of media such as television, computers, and the Internet. Emphasis is placed on the developing child in the context of communication and technology as related to informal educational activities and play.

## EDUC 406 Educational Aspects of

 Physical Activity, Health and Wellness (3 credits)Prerequisite: EDUC 210 or PSYC 200 or equivalent; 30 credits. This course examines the promotion of physical health and well-being of both adults and children. Using an educational approach, principles from the Psychology of Sports, including stress management, motivation, mental training and goal-setting serve as the foundation from which students learn how to enhance sport or exercise performance and general lifeskills.

## EDUC 422 Sociology of Education I

(3 credits)
Prerequisite: 30 credits. This course emphasizes sociological concepts and their theoretical and practical applications to the study of education.

The focus is on the following: how the education system is structured, how schooling and education fit into the overall social structure, how educational experiences vary for members of different social groups, the role education plays in gender, class, and racial inequalities, the complexity of issues relating to student evaluation and performance, and the role education plays in social change.
NOTE: Students who have received credit for EDUC 421 may not take this course for credit.

## EDUC 423 Sociology of Education II

 (3 credits)Prerequisite: EDUC 422. This course considers how a particular sociological viewpoint contributes to our understanding of school life. Topics include family, socialization patterns, teacher and pupil perspectives, and how these are interrelated.
NOTE: Students who have received credit for EDUC 421 may not take this course for credit.

## EDUC 426 Comparative Education I

 (3 credits)Prerequisite: Six credits in Education. This course undertakes the study of the impact of political and cultural differences upon educational systems (for example, the impact of language differences, nationalism, colonialism, neocolonialism, political socialization). The approach is comparative, with particular emphasis on contrasting educational systems and practice in selected countries.

## EDUC 427 Comparative Education II

 (3 credits)Prerequisite: Six credits in Education. This course examines the sources and impacts of educational change from a comparative perspective. Topics include pedagogical alternatives; socio-political alternatives; educational implications of technological change and economic policy; policies of elitism and egalitarianism. Methods include comparative case study and analysis of specific theories of educational innovation.

EDUC 432 Seminar in Epistemology and Education (3 credits)
Prerequisite: Six credits in Education, or permission of the Department. Theories of knowledge are considered in this course, with special attention being given to the bearing of such topics as perception, evidence, truth, knowledge, and belief as relating to educational thought and practice. Students are expected to become familiar with recent periodical and other literature in the field.

## EDUC 434 Aesthetics and Education

 (3 credits)Prerequisite: EDUC 230 or permission of the Department. The nature of aesthetic value and experience, and theories of art and beauty are examined. The development of the emotions and imagination, and their functions in aesthetic
awareness are central concerns of this course. Students are expected to become familiar with the relevant literature in the field.

EDUC 445 Education in Québec (3 credits) Prerequisite: 30 credits in a teacher certification program, or holder of a provisional teaching authorization, or permission of the Department. This course covers the history, the contemporary movements, and the structures of Québec education. The historical section covers the period from 1608 until the present. Topics included are the legislation, regulations, rules, and directives pertaining to the respective roles of the Ministry of Education, the school boards, the teachers, the parents, and the students in Québec's educational system.
NOTE: Because this is a required course for all individuals enrolled in a Québec program of teacher training, the content is controlled by the Ministry of Education.

## EDUC 450 The Inclusive Classroom: Educating Exceptional Children (3 credits)

Prerequisite: 30 credits including EDUC 210 or 211. This course focuses on the education of children with special needs. Emphasis is placed on ways in which classroom teachers can provide appropriate help or instruction to meet the needs of exceptional children. Topics include identification and assessment of learning needs; adaptation of curriculum and activity design, service delivery models; parent-professional relationships; legislative policies.

## EDUC 454 Diversity in the Classroom

 (3 credits)Prerequisite: 30 credits including EDUC 210 or 211. Students examine the implications of diversity in the classroom for teaching, curriculum, and children's educational experience. Various theoretical approaches are analysed, including critical pedagogy, multicultural education, and intercultural education. The importance of inclusive curricula is discussed.

## EDUC 471 Supervised Internship

 ( 6 credits)This course is offered only to students enrolled in the Certificate in Education program. Teaching internship is carried out in the school where the student is employed. The students are supervised and their teaching performance evaluated. The students are expected to demonstrate positive evidence of teaching competence and professional behaviour.

## EDUC 473 Practicum IV: Kindergarten/ <br> Primary Teaching (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 60 credits including EDUC 371, 373, 375; students must be enrolled in EDUC 474 in the same semester. This internship is a twelve-week ( 300 hours) supervised student-teaching experience in a
full-day kindergarten and/or primary classroom. Students share in the daily work of their cooperating teachers, and progress gradually from being participant observers working with small groups to taking charge of the whole class as independent, creative practitioners. Students perfect their skills in activity planning, intervention strategies, the evaluation of student learning, and the management of classroom routines. NOTE: Students who have received credit for EDUC 395 or 493 may not take this course for credit.

## EDUC 474 Kindergarten/Primary Teaching Seminar (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 60 credits including EDUC 371, 373, 375; students must be enrolled in EDUC 473 in the same semester. This seminar complements EDUC 473 by providing the opportunity, means, and impetus for students to reflect critically on their teaching philosophy and practice. Topics include the development of appropriate and stimulating learning environments, MEQ kindergarten and primary program guidelines, planning and implementation of learning centres, teaching the "whole" child, teacher-parent relationships, and other current issues in primary education. NOTE: Students who have received credit for EDUC 396 or 494 may not take this course for credit.

## EDUC 480 Special Methods of Teaching - Elementary (3 credits)

This course is offered only to students enrolled in the Certificate in Education program. It deals with methods of teaching in the elementary school. Emphasis is placed on the practical application of educational theories.

## EDUC 481 Special Methods of Teaching - Secondary (3 credits)

This course is offered only to students enrolled in the Certificate in Education program. This course deals with methods of teaching in a high school subject. The course is designed to suit the individual student's field of specialization.

## EDUC 490 The Exceptional Child I (3 credits)

Prerequisite: EDUC 211 or equivalent; 30 credits in Education, or permission of the Department. This course is an introduction to the educational issues concerning children with special needs. The focus is on inclusive childhood settings. Theoretical models, intervention strategies, and advocacy are issues that are explored.

## EDUC 491 The Exceptional Child II

 (3 credits)Prerequisite: EDUC 490, or permission of the Department. This course is an in-depth exploration of children's experience with intellectual, emotional, and physical disability, and specific interventions that can foster coping, healthy development, and family systems approach.

## EDUC 493 Practicum IV: Primary

Teaching (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 60 credits including EDUC 295, 296, 297, 395, 396; students must be enrolled in EDUC 494 in the same semester. The internship is an eight-week (200 hours) supervised student-teaching experience in a primary classroom (grades 1 to 3). Students share in the daily work of their cooperating teachers, and progress gradually from being participant observers working with small groups to taking charge of the whole class as independent, creative practitioners. Students perfect their skills in activity planning, intervention strategies, the evaluation of student learning, and the management of classroom routines. NOTE: Students who have received credit for EDUC 473 may not take this course for credit.

## EDUC 494 Primary Teaching Seminar

 (3 credits)Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 60 credits including EDUC 295, 296, 297, 395, 396; students must be enrolled in EDUC 493 in the same semester. The seminar complements EDUC 493 by providing the opportunity, means, and impetus for students to reflect critically on their teaching philosophy and practice. Topics include the development of appropriate and stimulating learning environments, Ministry of Education of Québec primary program guidelines, planning and implementation of curriculum units, teacher-parent relationships, and other current issues in primary education.
NOTE: Students who have received credit for EDUC 474 may not take this course for credit.

## EDUC 495 Practicum V: Upper

Elementary Teaching (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 90 credits including EDUC 222, 295, 296, 297, 301, 380, 381, 382, 383, 385, 387, 388, 389, 395, 396, 493, 494; students must be enrolled in EDUC 496 in the same semester. Students are placed in an elementary classroom (grades 4 to 6 ) for an eight-week student-teaching experience (200 hours). They are provided with the opportunity to continue to develop their own teaching strategies and enhance their skills in curriculum planning and implementation, preparing and evaluating classroom materials, and monitoring student progress. Students participate in the daily routines and educational duties of their cooperating teachers and become involved in student activities.
NOTE: Students who have received credit for EDUC 475 may not take this course for credit.

## EDUC 496 Upper Elementary Teaching <br> Seminar (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 90 credits including EDUC 295, 296, 297, 395, 396, 493,

494; students must be enrolled in EDUC 495 in the same semester. The main focus of EDUC 496 is the discussion, review, and analysis of relevant material in the context of students' internship placements. Topics include curriculum development and diversity in the classroom population, involvement of parents in their children's education, Ministry of Education of Québec guidelines, teaching strategies, self-reflection and evaluation. NOTE: Students who have received credit for EDUC 476 may not take this course for credit.

## EDUC 498 Advanced Topics in Education

 (3 credits)EDUC 499 Advanced Topics in Education ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## Information Studies

## INST 212 Information in Society

 (3 credits)This course provides a theoretical and historical introduction to topics such as the nature and definition of information, its role in society and the economy, how technology has impacted on the accessibility, distribution, and use of information and information policy. Basic concepts and vocabulary, an introduction to the information professions and the literature of the field are covered.

## INST 220 Introduction to Information-

 Based Organizations (3 credits)This course introduces students to basic management and organizational theory and practice within the information-based organization. It focuses on the influence of information on functions at the various organizational levels, and examines the place of the organization within a global economy.

## INST 250 Introduction to Library

Research Practices (3 credits)
This course is designed to introduce students to basic library research practices. It familiarizes students with a variety of information sources in both print and non-print formats. Emphasis is placed on a systematic search strategy in the use and evaluation of these information tools. Topics such as outlining and bibliographic format are covered as part of the library research process.
NOTE: Students who have received credit for EDUC 250, INSZ 250, or LIBS 250 may not take this course for credit.

## INST 260 Organization of Information I

 (3 credits)This course covers the theory and principles required to describe and analyse information in print and electronic media. Students review the
evolution of various guiding principles and methods employed in the organization of information including international standards and codes. The course focuses on the identification and analysis of the essential descriptive elements common to all types of records, the use of bibliographic utilities and data transfer.

## INST 280 Methods of Information

 Retrieval I (3 credits)This course examines the theory, concepts, and skills involved in information storage and retrieval. Emphasis is placed on an understanding of data structures and the organization of information in a variety of print and electronic media. Students focus on the analysis of the problem, selection of appropriate sources, search strategy develop-
ment, and comparison and evaluation of different types of resources.

## INST 290 Database Systems for Information Management (3 credits)

This course provides an introduction to different types of databases, such as hierarchical and relational, and their corresponding file organization and data structures. Platforms and operating systems are presented. An overview of existing software for each type of database is examined and evaluation criteria for assessing software is included.

## INST 298 Selected Topics in Information Studies (3 credits)

Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## INST 320 Organization of Information II

 (3 credits)Prerequisite: INST 260. This course further develops the theory and principles required to describe and analyse information in print and electronic media. Part II focuses on indexing and abstracting principles, classification systems, and subject analysis. It includes comparison and evaluation of various systems according to the subject and format of documents to be analysed. Thesaurus design and construction are covered.

## INST 330 Basic Programming for Information Systems (3 credits)

 Prerequisite: INTE 291 or equivalent. Programming theory and techniques relevant to information systems are studied. Students are introduced to an object-oriented programming language.
## INST 350 Methods of Information

Retrieval II (3 credits)
Prerequisite: INST 280. This course covers the theory and application of more advanced concepts in online and Internet searching with special emphasis on Education and complementary disciplines (i.e. Sociology, Psychology, and such). Bibliographic, fulltext and numeric databases are
studied. Emphasis is placed on search strategy design and on critical evaluative techniques to analyse the data retrieved. Additional topics include basic telecommunications, communications software, and electronic document delivery.

INST 398 Selected Topics in Information Studies (3 credits)
Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

INST $420 \quad$ User Behaviour in the Information Environment (3 credits)
Prerequisite: INST 320, 350. This course examines common information-seeking behaviours of users from a variety of populations such as students, researchers, and practitioners. Topics covered include information-seeking behaviours and use of information resources. Students examine how information channels are selected and used, expectations of and problems encountered by information seekers, and the impact of technologies on the information-seeking process.

## INST 430 Theory and Practice of Information Dissemination (3 credits) <br> Prerequisite: INST 350. Principles involved in

filtering, synthesizing, and presenting information form the basis of this course. Issues such as copyright, plagiarism, and the role of proper documentation are covered. Emphasis is placed on analysing user needs to determine appropriate presentation formats. The course includes the design and execution of several projects with text and graphics using appropriate software.

## INST 498 Advanced Topics in Information Studies (3 credits)

Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## Library Studies

LIBS 495 Field Practice (3 credits) Prerequisite: Completion of all other required Library Studies courses. In consultation with the appropriate supervising librarian, the student is placed in a local library system other than the library in which the student is employed. The duration of the field practice is five weeks. Field practice includes a wide variety of library tasks. In addition the student is required to complete a written research project on a topic approved by the professor.
31.090.1

Teaching of English
as a Second
Language

## Admission

Requirements (BEd)

## BEd (Teaching English as a Second Language)

The Centre for the Teaching of English as a Second Language offers the BEd Degree (Teaching English as a Second Language).

General admission requirements are listed in $\S 13$ (Admission Regulations). Specific requirements are as follows:

1. Satisfactory completion of a two-year pre-university program in a cégep or equivalent. Within the program, the students will be required to have successfully completed the equivalent of four semester courses in English.
2. Owing to the specialized nature of this program, no more than 60 pro-tanto credits will be permitted, and the University reserves the right to determine which ones these should be. (See §16.1.3.5)
3. Applicants must demonstrate competence in English and French through formal tests of proficiency and obtain scores acceptable to the Department of Education.
NOTE I: Arrangements for taking the proficiency tests may be made through the Office of the Registrar.
4. The BEd (TESL) is open to both prospective and experienced teachers and is offered in the day and evening. The internship courses are offered only as daytime, Fall/Winter courses.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

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120 BEd Specialization in Teaching
        English as a Second Language
        Stage I
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    6 EDUC 2016
    6 ENGL 212 3}\mathrm{ and 213 or 396**
    3 General university elective credits
        Stage II
    15 TESL 330}\mp@subsup{}{}{3},35\mp@subsup{1}{}{3},41\mp@subsup{5}{}{3},42\mp@subsup{6}{}{3},46\mp@subsup{6}{}{3
    12 EDUC 210 6, 450 3, 454 
    3 Canadian English literature
        Stage III
    6 TESL 427 }\mp@subsup{}{}{3},467\mp@subsup{7}{}{3
    3 EDUC 4453
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6 Canadian English or other English literature
6 EDUC, ADED, or PSYC options
3 TESL or LING options
6 After testing, chosen from advanced ESL; intermediate/advanced FRAN; other languages (GERM, ITAL, MRUS, SPAN, etc.) at any level. Stage IV
15 TESL $486^{6}, 487^{6}, 488^{3}$
3 TESL or LING options
12 General university elective credits *Students who need ESL 209 will take it in Stage I.

## CERTIFICATE IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE

This 30 -credit program is offered to individuals whose native language is English or whose proficiency in English meets native-user standards.

Admission
Requirements

Program

1. Applicants must have completed a bachelor's degree.
2. Applicants must demonstrate competence in English through formal tests of proficiency and obtain scores acceptable to the Department of Education.
NOTE I: Arrangements for taking the proficiency tests may be made through the TESL Centre.
Concordia students may transfer into the Certificate program all applicable Concordia credits earned in an incomplete degree or Certificate program or as an Independent student, provided they are students in good standing. Students from other institutions may transfer up to 12 applicable credits earned in an incomplete degree or Certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.
The TESL Certificate program is offered in the evening.
NOTE II: Individuals who have completed a prior Concordia University TESL Certificate are not eligible for admission to this Certificate.

30 Certificate in the Teaching of English as a Second Language
6 ENGL $212^{3}$ and $213^{3}$ or $396^{6}$
24 TESL $221^{3}, 231^{3}, 324^{3}, 331^{3}, 341^{3}, 415^{3}, 424^{3}, 433^{3}$

## INFORMATION RELEVANT TO PROGRAMS IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE

NOTE I: Upon successful completion of the BEd (TESL) program and after application to the Office of the Registrar, a graduate may be recommended to the Québec Teachers Certification Service for a "Brevet d'enseignement: autorisation personnelle permanente" (a teaching diploma). Graduates who wish to teach ESL in francophone schools, the only schools in Québec where ESL may be taught, must satisfy the French proficiency requirements of the school board to which they apply.
There is no comparable certification process for teaching ESL at the cégep level - Collège d'enseignement général et professionnel (junior college) or other adult level.
To be recommended for certification, students must achieve at least a "C" grade in methodology and teaching practice courses: that is, TESL $324^{3}, 326^{3}, 330^{3}, 424^{3}, 426^{3}, 427^{3}, 433^{3}, 466^{3}, 467^{3}, 486^{6}$, and $487^{6}$.
Students who obtain a passing grade that is below the level required for recommendation for certification will be placed on conditional standing within the program and will be so informed in writing by the TESL Program Director. Students will be allowed to repeat the course(s) in question only once in order to achieve the required grade. (For the status of this grade as part of the student record, see Calendar §16.3.12.)
Students who obtain a failing grade ( $F, R$, or NR) in any of the courses listed above as methodology and practice teaching will be required to withdraw from the program and will also be so informed in writing by the TESL Program Director.
In the event that a student meets regular university standards but does not satisfy the requirements for recommendation for certification, the student may apply to receive the university degree but will not be recommended to the Ministry.

NOTE II: Upon admission, students may be granted exemptions from courses in TESL programs if they have completed equivalent work at the university level.
Replacement for these exemptions must be made in accordance with the guidelines established by the Department of Education and approved by the University. Copies of these guidelines may be obtained in the Department of Education.

Because of the renumbering of courses in the Department, students should see $\S 200.1$ for a list of equivalent courses.

TESL 221 Phonology for Teachers (3 credits)
Prerequisite: TESL 231 concurrently; EDUC 201
previously or concurrently. The aim of this course is to provide students with a knowledge of the major features of the English sound system, and
to prepare them to apply this knowledge in the language classroom. Contrasts and comparisons are made with French and other languages.

## TESL 231 Modern English Grammar (3 credits)

Prerequisite: TESL 221 concurrently; EDUC 201 previously or concurrently. The purpose of this course is to provide students with a current description of the English grammatical system at the text level, to make them aware of grammatical differences between English and French and other major languages, and to alert them to typical grammatical errors made by non-native speakers of English.

## TESL 298 Selected Topics in TESL (3 credits)

TESL 299 Selected Topics in TESL (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## TESL 318 Theories of Reading and

 Writing ( 3 credits)Prerequisite: Nine TESL credits including TESL 324. The course examines the theoretical and research basis for current practice in the teaching of reading and writing. Students become familiar with the concerns and practices of those investigating the development of reading and writing in second-language learners in particular, and become aware of how this is related to teaching materials and activities.

TESL 324 Methodology I (3 credits) Prerequisite: TESL 221; TESL 231, each with a grade of " C " or better, and admission to a TESL program or permission of the Department. This course reviews current theory in applied linguistics which relates directly to teaching and learning ESL in the classroom. Techniques and methods appropriate to child, adolescent, and adult learners are discussed and demonstrated. In this course the emphasis is on classroom-oriented techniques and materials related to the teaching of listening and speaking.
NOTE: Students must have achieved at least a " $C$ " in this course in order to be recommended for teacher certification upon completion of the program.

## TESL 326 TESL Pedagogy: General

 (3 credits)Prerequisite: TESL 221; EDUC 201, TESL 331 previously or concurrently. The purpose of this course is to introduce students to the profession of teaching English as a second language. It provides an overview of TESL methods and teaching situations. Students examine current principles of TESL pedagogy, lesson planning, audio-visual aids, classroom organization and management techniques. They spend a total of

30 hours observing and assisting in adult ESL classes. Assignments include school-based projects.

## TESL 330 Computers in Language Learning (3 credits)

Prerequisite: EDUC 454; TESL 426, 466 concurrently. The purpose of this course is to introduce students to the uses of the computer in the ESL class. Students acquire knowledge of computer applications for language learning and how to incorporate this knowledge into classroom practice.

## TESL 331 Grammar for Teachers (3 credits)

Prerequisite: TESL 231. The purpose of this course is to provide students with current approaches, methods, and materials in the teaching of grammar at all levels of the ESL classroom. Students will be prepared to analyse critically and modify published classroom materials related to the teaching and learning of grammar.

## TESL 341 Language Acquisition (3 credits)

Prerequisite: TESL 221, 231 previously or concurrently; or permission of the Department. This course examines sociocultural and psycholinguistic influences on the acquisition of a first and second language. These issues are examined in relation to the learning and teaching of a second language.

## TESL 351 History of the English

 Language (3 credits)Prerequisite: TESL 221, 231 or permission of the Department; TESL 415, 427, 467 concurrently. The purpose of this course is to provide students with an overview of the significant changes which have taken place in the English language from Proto-Indo-European to the present. Students consider the evolving nature of English and its role as an international language.

## TESL 361 Teaching English for Specific Purposes (3 credits)

Prerequisite: TESL 324, or permission of the Department. This course provides instruction in the teaching of language skills to those who require English either as an auxiliary to their scientific, technical, or professional skills or as a medium for training in these areas.

TESL 398 Selected Topics in TESL (3 credits)

TESL 399 Selected Topics in TESL (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

TESL 415 Testing, Evaluation and Course Design (3 credits) Prerequisite: For BEd students: TESL 351, 427, 467 concurrently; for Certificate students:

TESL 424 previously or concurrently. The purpose of this course is to prepare students to test and evaluate learners in different types of ESL programs. Students examine syllabi and evaluation systems used in the schools and become familiar with placement and proficiency testing materials.

TESL 424 Methodology II (3 credits) Prerequisite: TESL 324. This course continues the presentation of techniques and methods begun in TESL 324. In this course the emphasis is on classroom-oriented techniques and materials related to the teaching of reading and writing.
NOTE: Students must have achieved at least a "C" in this course in order to be recommended for teacher certification upon completion of the program.

TESL 426 Pedagogy: Primary (3 credits) Prerequisite: TESL 326; TESL 330, 466, EDUC 210, 454 previously or concurrently. The purpose of this course is to familiarize students with the principles of TESL pedagogy in regular and intensive ESL primary classrooms. This course emphasizes knowledge of MEQ primaryschool programs and approved materials. Students learn classroom management techniques, assessment practices, and how to adapt materials to specific primary-school contexts.

## TESL 427 Pedagogy: Secondary (3 credits)

Prerequisite: TESL 426; TESL 351, 415, 467 concurrently. The purpose of this course is to familiarize students with the principles of TESL pedagogy in regular and Language Arts (ESL-LA) ESL secondary classrooms. This course emphasizes knowledge of MEQ secondary programs and approved materials. Students learn classroom management techniques, assessment practices, and how to adapt materials to specific secondaryschool contexts.

TESL 433 Practicum (3 credits) Prerequisite: TESL 324. This course is open only to students enrolled in the TESL Certificate. In this course, students practise techniques which were introduced in their methodology courses. There are opportunities for observation of ESL classes taught by experienced teachers. Techniques presented in TESL 324 and 424 are practised in micro-teaching, peer teaching, and sessions with groups of ESL students. Requirements include lesson planning and the evaluation of one's own teaching performance.
NOTE: Students must have achieved at least a "C" grade in this course in order to be recommended for teacher certification upon completion of the program.
NOTE: Students who have received credit for TESL 385 may not take this course for credit.

TESL 434 Error Analysis (3 credits) Prerequisite: Fifteen TESL credits including TESL 324 and TESL 341. In this course, current
theories of second-language acquisition are reviewed and applied. Each student carries out analyses of ESL learners' language, focusing on patterns of errors. The identification and classification of errors is followed by the development of teaching materials which the student uses in order to help learners overcome some persistent errors.

TESL 466 Internship: Primary I (3 credits) Prerequisite: TESL 330, 426, EDUC 210, 454 previously or concurrently. The purpose of this course is to apply the principles acquired in TESL 426 to the teaching of ESL to primaryschool learners. Students attend on-campus seminars and spend a minimum of 140 hours observing and teaching in a primary school supervised by a cooperating teacher and a university professor.

## TESL 467 Internship: Secondary I (3 credits)

Prerequisite: TESL 466; TESL 427 concurrently; EDUC 450 previously or concurrently. The purpose of this course is to apply the principles acquired in TESL 427 to the teaching of ESL to secondary-school learners. Students attend oncampus seminars and spend a minimum of 140 hours observing and teaching in a secondary school supervised by a cooperating teacher and a university professor.

TESL 486 Internship: Primary II ( 6 credits) Prerequisite: TESL 466; TESL 487, 488 concurrently. The purpose of this course is to further develop the skills required in teaching ESL to primary-school learners. Students teach a minimum of 210 hours supervised by a cooperating teacher and a university professor. In addition, students attend on-campus seminars in which they discuss and reflect upon their experiences in the schools.

TESL 487 Internship: Secondary II ( 6 credits)
Prerequisite: TESL 467; TESL 486, 488 concurrently. The purpose of this course is to further develop the skills required in teaching ESL to secondary-school learners. Students teach a minimum of 210 hours supervised by a cooperating teacher and a university professor. In addition, students attend on-campus seminars in which they discuss and reflect upon their experiences in the schools.

TESL 488 Internship Seminar (3 credits) Prerequisite: TESL 486, 487 concurrently. The purpose of this course is to integrate the knowledge gained during the BEd with the knowledge that students have acquired during practice in the field. Students reflect on and make explicit their own professional and personal development over the course of the four-year program and set goals for future long-term professional development.

TESL 491 Study in a Special Subject (3 credits)
Prerequisite: Permission of the Department. This course provides an opportunity for advanced students to intensify their study beyond the area of specialization already represented by the curriculum. The selected subject varies with the special interest of the instructor conducting the course in any given year.

TESL 498 Advanced Topics in TESL (3 credits)

TESL 499 Advanced Topics in TESL (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

TESL 492 Study in a Special Subject (3 credits)
Prerequisite: Permission of the Department. A student repeating TESL 491 registers for credits under TESL 492.

## COURSES IN ENGLISH AS A SECOND LANGUAGE

Courses in English as a Second Language are designed for students who are not native speakers of English and who need further training in the effective use of English in the university setting. Students must be tested for placement in ESL 207, 208, 209, or 210. Information about placement testing schedules may be obtained from the English Language Proficiency Testing Office of the Department of Education, 2070 Mackay, Room: 200, (514) 848-2453. A special examination fee is charged. (See §15.1)

Written work is required in English for these courses; please consult with the Department.
Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.
NOTE: Students enrolled in a regular degree or an extended credit degree program in the Faculty of Arts and Science may take ESL courses for degree credit, up to a maximum of six credits.

## ESL 207 English Language Intermediate I (3 credits)

Prerequisite: Placement by the Concordia English Language Diagnostic Test. A course for students who are not native speakers of English and who need further training in the effective use of English in the university setting. Emphasis is on reading and writing skills.
NOTE: Students who have completed ESL 100 or have received credit for ENGL 205 or 206 may not take this course for credit.

## ESL 208 English Language Intermediate II (3 credits)

Prerequisite: ESL 207, or placement by the Concordia English Language Diagnostic Test. This course is a continuation of ESL 207. NOTE: Students who have completed ESL 100 or have received credit for ENGL 205 or 206 may not take this course for credit.

## ESL 209 English Language - <br> Advanced I (3 credits)

Prerequisite: ESL 208, or placement by the Concordia English Language Diagnostic Test. This course is for students who are not native speakers of English. It encourages the development of effective written communication and improved reading comprehension, so that students may perform competently in their other university work.
NOTE: Students who have received credit for

ESL 201 or ENGL 205 or 206 may not take this course for credit.

## ESL 210 English Language - <br> Advanced II (3 credits)

Prerequisite: ESL 209, or placement by the Concordia English Language Diagnostic Test. This course is a continuation of ESL 209. Emphasis is upon writing the academic research paper.
NOTE: Students who have received credit for ESL 201 or ENGL 205 or 206 may not take this course for credit.

## ESL 290 Communication through the Study of Special Topics

 (3 credits)Prerequisite: Successful completion of ESL 201; ESL 209, or tested equivalence. This course is for non-native speakers of English only. Its primary aim is to increase students' oral fluency in English; its secondary aim is to encourage improved levels of competence in the other language skills: listening, reading, and writing.

## ESL 298 <br> Selected Topics in ESL

 (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.
31.090 .2

Adult Education

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

## 30 Certificate in Adult Education

 Certificate Admission Requirements General admission requirements are listed in §13. Applicants will be interviewed prior to admission.Students must take:
6 ADED 2013 ${ }^{3}$, $202^{3}$
15 Chosen from the Adult Education (ADED) offerings
3 Chosen from cognate courses with the permission of the program director
6 ADED $496^{3}, 497^{3}$, Integrative Internships I and II

Students may transfer into the Certificate program up to 12 credits earned in an incomplete degree or Certificate program or as an Independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

## 24 Minor in Adult Education

ADED $201^{3}, 202^{3}$
18 Chosen from Adult Education (ADED) course offerings with the prior approval of the Adult Education coordinator.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## ADED 201 Concepts and Principles of Adult Education (3 credits)

This course consists of an overview of the field of adult education as a field of study with emphasis given to its philosophy, objectives, historical development, and the nature of adult learners. It also examines adult education as a field of practice with emphasis given to methods, techniques, roles, and competencies. This course stresses active student participation and self-directedness. NOTE: Students who have received credit for ADED 200 may not take this course for credit.

## ADED 202 The Scope and Nature of Adult

Education Programs (3 credits)
This course is designed to help students develop an understanding of the scope and nature of adult education programs. Emphasis is placed on existing programs, and institutions and agencies providing them. The course stresses active student participation and self-directedness. NOTE: Students who have received credit for ADED 200 may not take this course for credit.

ADED 220 Adults as Learners ( 3 credits) This course examines the unique physiological, psychological, and sociological characteristics of adults, their influence on adult learning and development, and their implications for educational intervention. Attention is given to changes which occur at various stages of the adult life cycle, and particularly to the dimensions which affect the adult's self-concept and orientation to learning, the motivations, needs, and interests which cause adults to participate in educational activities.

## ADED 230 Roles and Competencies of Adult Educators (3 credits)

The purpose of this course is to review the state of professionalization of adult education. General skills, knowledge, and attitudes expected of adult educators regardless of the setting in which they work are examined. In addition, according to the participants' needs and interests, an opportunity
is given to explore competencies related to the particular roles of, e.g., administrators, program developers, trainers, leaders, instructors, counsellors, and volunteer workers.

## ADED 240 Introduction to Research in <br> Adult Education (3 credits)

This course is designed to introduce students to how to gain access to and utilize major information sources in adult education. In addition, the course examines research interests and problem areas studied in adult education and related fields, along with current trends and various methods of enquiry used.

## ADED 298 Selected Topics in Adult Education (3 credits) <br> ADED 299 Selected Topics in Adult Education ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ADED 302 Group Dynamics (3 credits) This course examines the processes, conditions, and skills involved when adults work in groups. Participants develop a knowledge and understanding of group dynamics and acquire the skills needed for using groups as a means of adult learning. One of the approaches this course takes is to have participants learn about group dynamics by being actively involved in various interactive group situations.
NOTE: Students who have received credit for this topic under ADED 370 may not take this course for credit.

## ADED 333 Methods and Techniques for Facilitating Adult Learning (3 credits)

This course is designed to give adult educators an opportunity to practise and improve their skills in facilitating adult learning. Different models of
educational processes and optimal conditions for promoting adult learning are examined; attention is given to case studies, role plays, and simulation methods and techniques, as well as to individualized learning formats.
NOTE: Students who have received credit for ADED 330 or 331 may not take this course for credit.

## ADED 344 Design of Adult Learning

 Projects (3 credits)The purpose of this course is to assist participants in developing a clear working concept of various models for planning and designing adult learning projects. To facilitate this understanding, the different steps of the process are closely examined and discussed. Participants are given an opportunity to design and conduct a learning activity in the area of subject matter speciality. A systems approach, including methods for evaluating the design of the learning project is emphasized.
NOTE: Students who have received credit for ADED 340 or 341 or 343 may not take this course for credit.

## ADED 345 Evaluating Adult Learning Projects (3 credits)

The purpose of this course is to assist participants in developing a clear working concept of various models for assessing the effectiveness of adult learning projects. The course emphasizes a systematic approach to evaluation, techniques for collecting information and providing feedback to program operation and impact. Participants are given the opportunity to conduct an evaluation of an adult learning project in the area of subject matter speciality.
NOTE: Students who have received credit for ADED 342 or 343 may not take this course for credit.

## ADED 370 Workshops for Adult

Educators (3 credits)
These workshops examine a number of topics and problems related to the field of adult education. The issues considered may differ from year to year and will be stated in the Undergraduate Class Schedule. The workshop format is designed to provide adult educators with learning opportunities that are flexibly scheduled or in the form of a one-week intensive seminar.

## ADED 398 Selected Topics in Adult Education (3 credits)

Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ADED 403 Diversity in Adults (3 credits) It is the role of adult educators (agents of change) to confront issues of diversity and to challenge the forces of racism, sexism, classism, homophobia, and discrimination. By integrating notions of education, and by reflecting on the roles of practitioners, this course develops strategies to resist structural inequality and oppression. NOTE: Students who have received credit for
this topic under an ADED 498 number may not take this course for credit.

## ADED 410 Adult Education in Canada and Québec (3 credits)

The purpose of this course is to examine the historical development and current state of adult education in Canada, with special reference to Québec. Various factors which influenced the development of adult education in our society are explored; the focus is on present status, role and structure, and socio-cultural and philosophical underpinnings of the field.

## ADED 412 Concepts and Values in Adult <br> Education (3 credits)

This seminar is designed to encourage adult educators to reflect upon and question what one is engaged in and why. A selection of conceptual and philosophical issues underlying adult educational practice is critically examined and discussed. Attention is given to the meaning of words, the nature of ideas and values, the implications of assumptions and principles which are deemed specific in the sphere of the education of adults.

## ADED 440 Issues in the Practice of Adult Education (3 credits)

The purpose of this seminar is to study and discuss current issues relating to the field and profession of adult education in general, along with more specific and local concerns. Group and individual interests have an important bearing on the design of this course.

## ADED 496 Integrative Internship I (3 credits)

Prerequisite: ADED 201; ADED 202 and 15 credits in the program. This internship is designed to assist individual students in achieving a synthesis of their own experiential learning in light of acquired knowledge, skills, values, and attitudes through the clarification of personal aims and the philosophy of adult education. Students will normally enrol in this internship near the end of their program.
NOTE: Students who have received credit for ADED 495 may not take this course for credit. NOTE: Students will normally enrol in ADED 496 near the end of their program.

## ADED 497 Integrative Internship II

 (3 credits)Prerequisite: Successful completion of ADED 496. This internship is designed to extend the personal aims and philosophy of adult education arrived at in Integrative Internship I, and engage in a special project in an adult education facility where supervision is provided by the host institution. NOTE: Students who have received credit for ADED 495 may not take this course for credit.

## ADED 498 Advanced Topics in Adult

 Education (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

### 31.100 ENGLISH



## Admission

Requirements

## ADMISSION REQUIREMENTS FOR CREATIVE WRITING COURSES AND PROGRAMS

Genre courses in Creative Writing are conducted as workshops in which enrolment is limited to permit constructive analysis of a student's work. Students wishing to enter any introductory genre course in Creative Writing $(225,226,227)$ must apply by submitting a letter of intent along with a portfolio consisting of 20 pages of their own work in any genre. Applications will be received as early as January of each year but no later than March 15. Since student demand regularly outpaces our enrolment capacity, early application is advisable.
Creative Writing programs (Major and Minor) are designed primarily to develop the literary skills of students with a commitment to writing as an art form. Structured workshops guide students through the practice of their craft from introductory to advanced levels under the supervision of experienced writers.
Students wishing to proceed to an advanced (400-level) workshop must achieve a final grade of "B-" or better in an introductory workshop in Creative Writing.
Students are required to complete the appropriate entrance profile for entry into the program (see §31.002 - Programs and Admission Requirements - Profiles).

## REQUIREMENTS FOR ENGLISH LITERATURE PROGRAMS

All students entering the English Literature Major must take a special Composition placement test which includes a literary component. Depending on the results of the test, students will be granted exemption from the Composition requirement or placed according to their levels in, initially, one of ENGL 206, ENGL 207, ENGL 212, or ENGL 213. (Some sections of ENGL 212 and ENGL 213 are specially designated for English Majors.) ENGL 212 and ENGL 213 do not count towards an English Literature or Creative Writing program, but may be claimed as general electives. The Composition requirement must be satisfied in the first year of enrolment in the program. Students should note the required introductory courses in each of the programs.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
Admission to the Honours program is granted at the end of the student's first year, after departmental review.

## 60 BA Honours in English Literature

3 ENGL $260^{3}$
6 ENGL $261^{3}, 262^{3}$
NOTE: The above nine credits to be taken within first 24 credits
18 Chosen from the following four groups; at least three credits must be taken from each group. A course can only be counted in one group, even if it is listed in more than one.

1) Early, medieval, and 16th century from ENGL $302^{3}, 304^{6}, 310^{3}, 316^{3}, 430^{6}$, $432^{6}, 434^{3}$
2) 17th century from ENGL $311^{3}, 318 \mathrm{~N}^{3}$, $319^{3}, 320^{6}, 435^{3}, 436^{3}, 437^{3}$
3) 18th century from ENGL $321^{3}, 322^{3}$, $323^{3}, 324^{6}, 331^{3}, 438^{3}, 439^{3}, 440^{3}, 441^{3}$ 4) 19 th century from ENGL $324^{6}, 325^{6}$, $330^{6}, 331^{3}, 441^{3}, 442^{3}, 443^{3}$
15 Chosen from the following four groups; at least three credits must be taken from each group. A course can only be counted in one group, even if it is listed in more than one.
4) Modern and contemporary from

ENGL $303^{6}, 336^{3}, 337^{6}, 340^{6}, 341^{3}, 345^{3}$,
$346^{6}, 349^{3}, 350^{6}, 351^{3}, 354^{3}, 355^{3}, 359^{3}$,
$394^{3}, 445^{3}, 446^{3}, 447^{3}$
2) American from ENGL $360^{6}, 363^{3}$,
$364^{3}, 365^{3}, 367^{3}, 368^{3}, 380^{3}, 448^{3}, 449^{3}$, $450^{3}$
3) Canadian from ENGL $370^{6}, 373^{3}, 374^{3}$, $376^{3}, 377^{3}, 378^{3}, 379^{3}, 380^{3}, 451^{3}, 452^{3}$, $453^{3}$
4) Postcolonial from ENGL $382^{6}, 383^{3}$, $386^{3}, 387^{3}, 388^{3}, 454^{3}$
3 ENGL $470^{3}$
15 Elective credits from ENGL 224 through 499
NOTE: Honours students must take at least nine credits at the 400 level, including ENGL 470.
However, a student, in consultation with the Honours-Majors adviser may substitute another 400-level course for ENGL 470.

## 60 BA Specialization in English

 Literature3 ENGL $260^{3}$
6 ENGL $261^{3}, 262^{3}$
NOTE: The above nine credits to be taken within first 24 credits
15 Chosen from the following four groups; at least three credits must be taken from each group. A course can only be counted in one group, even if it is listed in more than one.

1) Early, medieval, and 16th century from ENGL $302^{3}, 304^{6}, 310^{3}, 316^{3}, 430^{6}$, $432^{6}, 434^{3}$
2) 17 th century from ENGL $311^{3}, 318 \mathrm{~N}^{3}$,
$319^{3}, 320^{6}, 435^{3}, 436^{3}, 437^{3}$
3) 18th century from ENGL $321^{3}, 322^{3}$,
$323^{3}, 324^{6}, 331^{3}, 438^{3}, 439^{3}, 440^{3}, 441^{3}$
4) 19 th century from ENGL $324^{6}, 325^{6}$,
$330^{6}, 331^{3}, 441^{3}, 442^{3}, 443^{3}$
18 Chosen from the following four groups; at least three credits must be taken from each group. A course can only be counted in one group, even if it is listed in more than one.
5) Modern and contemporary from

ENGL $303^{6}, 336^{3}, 337^{6}, 340^{6}, 341^{3}, 345^{3}$,
$346^{6}, 349^{3}, 350^{6}, 351^{3}, 354^{3}, 355^{3}, 359^{3}$,
$394^{3}, 445^{3}, 446^{3}, 447^{3}$
2) American from ENGL $360^{6}, 363^{3}, 364^{3}$,
$365^{3}, 367^{3}, 368^{3}, 380^{3}, 448^{3}, 449^{3}, 450^{3}$
3) Canadian from ENGL $370^{6}, 373^{3}, 374^{3}$,
$376^{3}, 377^{3}, 378^{3}, 379^{3}, 380^{3}, 451^{3}, 452^{3}$,
$453^{3}$
4) Postcolonial from ENGL $382^{6}, 383^{3}$,
$386^{3}, 387^{3}, 388^{3}, 454^{3}$
18 Elective credits from ENGL 224 through 499

## 42 BA Major in English Literature

3 ENGL $260^{3}$
6 ENGL $261^{3}, 262^{3}$
NOTE: The above nine credits to be taken within first 24 credits
6 Chosen from ENGL $303^{6}, 337^{6}$ through $355^{3}, 360^{6}, 363^{3}$ through $388 \mathrm{~N}^{3}$
6 Chosen from ENGL $302^{3}$ through $394 \mathrm{~N}^{3}$, $398^{3}, 399^{6}, 430^{6}$ through 499 ${ }^{6}$
6 Chosen from ENGL $302^{3}$ through $499^{6}$
15 Elective credits from ENGL $224^{3}$ through $480^{3}$, with at least three credits at the 300 or 400 level

## 60 BA Honours in English and Creative Writing

3 ENGL $260^{3}$
12 Chosen from ENGL $225^{6}, 226^{6}, 227^{6}$
18 Chosen from ENGL $410^{6}$ through $429^{3}$, $480^{3}$. At least six credits must be taken from $425^{6}, 426^{6}$, and $427^{6}$
9 Chosen from the following four groups. Students must take at least three credits in two of the groups. A course can count in only one group, even if it is listed in more than one.

1) Early, medieval and 16 th century from ENGL $302^{3}, 304^{6}, 310^{3}, 316^{3}, 430^{6}$, $432^{6}, 434^{3}$
2) 17 th century from ENGL $311^{3}, 318 \mathrm{~N}^{3}$, $319^{3}, 320^{6}, 435^{3}, 436^{3}, 437^{3}$
3) 18th century from ENGL $321^{3}, 322^{3}$, $323^{3}, 324^{6}, 438^{3}, 439^{3}, 440^{3}, 441^{3}$
4) 19 th century from ENGL $324^{6}, 325^{6}$,
$330^{6}, 331^{3}, 441^{3}, 442^{3}, 443^{3}$
6 Modern and contemporary, American and postcolonial from ENGL $303^{6}, 336^{3}$ $337^{6}, 340^{6}, 341^{3}, 345^{3}, 346^{6}, 349^{3}, 356^{6}$, $351^{3}, 354^{3}, 355^{3^{3}}, 359^{3}, 360^{6}, 363^{3}, 364^{3}$, $365^{3}, 367^{3}, 368^{3}, 380^{3}, 382^{6}, 383^{3}, 386^{3}$,
$387^{3}, 388^{3}, 394^{3}, 445^{3}, 446^{3}, 447^{3}, 448^{3}$,
$449^{3}, 450^{3}, 454^{3}$
3 Canadian from ENGL $370^{6}, 373^{3}, 374^{3}$, $376^{3}, 377^{3}, 380^{3}, 451^{3}, 452^{3}, 453^{3}$
9 Elective credits in English literature
42 BA Major in Creative Writing*
12 Chosen from ENGL $225^{6}, 226^{6}, 227^{6}$
6 Chosen from ENGL $425^{6}, 426^{6}, 427^{6}$
6 Chosen from ENGL $410^{6}, 411^{6}, 412^{6}$, $413^{6}, 425^{6}, 426^{6}, 427^{6}, 428^{6}, 429^{3}$
6 Credits in Canadian Literature
12 ENGL elective credits in literature courses.
*NOTE: Students wishing to register for the Major in Creative Writing should refer to the admission requirements for Creative Writing courses and programs.

## 30 Minor in Creative Writing

12 Chosen from ENGL $225^{6}, 226^{6}, 227^{6}$
*12 Chosen from ENGL $410^{6}, 411^{6}, 412^{6}$, $413^{6}, 425^{6}, 426^{6}, 427^{6}, 428^{6}, 429^{3}$
6 ENGL elective credits Students wishing to register for the Minor in Creative Writing should refer to the admission requirements for Creative Writing courses and programs.
*NOTE: At least six credits in this group must be chosen from $425^{6}, 426^{6}$, or $427^{\circ}$

24 Minor in English Literature
24 ENGL elective credits in literature courses*
*Students are encouraged to consult with the Department in selecting their courses.

## 24 Minor in Professional Writing

12 ENGL $213^{3}, 214^{3}, 215^{3}, 216^{3}$
6 ENGL $396^{6}$
3 Chosen from ENGL $395 \mathrm{~N}^{3}, 397^{3}$
3 Chosen from ENGL $233^{3}, 390 \mathrm{~N}^{3}, 395 \mathrm{~N}^{3}$, $397^{3}$
*Students are encouraged to consult with the Department in selecting their courses.

60 BA Joint Specialization in English and History
6 ENGL 2613, $262^{3}$
6 Periods before 1800 (British) from ENGL $302^{6}, 304^{6}$ through $324^{6}, 430^{3}$ through $441^{3}$
6 Canadian, American, and postcolonial from ENGL $360^{6}, 363^{3}$ through $388^{3}$, $448^{3}$ through $454^{3}$
6 19th century and 20th century (British and European) from ENGL $324^{3}$ through $359^{3}$, $394^{3}, 442^{3}, 443^{3}, 445^{3}$ through $447^{3}$
6 Elective credits from ENGL $224^{3}$ through $499^{3}$
6 HIST 201 ${ }^{3}$, $202^{3}$
6 Chosen from HIST $203^{3}, 205^{3}, 251^{3}, 253^{3}$
6 200-300 level non-Western HIST
3 300-level pre-1800 Canadian, American, British, or European HIST
3 300-level post-1800 Canadian, American, British, or European HIST
$6 \quad 300-400$ level History elective credits

200-level courses and 300-level courses without prerequisite are open to all students and may be
These courses may require work written in English. Please consult with the Department. Not all courses listed here are offered in a given year. The Department will make an effort to offer the 200 - and 300 -level courses that are required for specific programs on a regular basis. General electives (230-254) and courses at the 400 level will be offered on a rotating basis. Students should consult the Concordia University Web page and follow the links to the Department of English.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## ENGL 206 Fundamentals of Written

 English (3 credits)Prerequisite: Placement test. This course provides practice in grammar and usage, sentence structure, punctuation, paraphrasing and summarizing, paragraphing, and essay writing.
NOTE 1: This course does not count for credit within any English program.
NOTE 2: Students who have received credit for this course may not subsequently take any ESL course for credit.
NOTE 3: Students who have received credit for ENGL 205 may not take this course for credit.
ENGL 207 Essentials of Written English (3 credits)
Prerequisite: ENGL 206 or placement test. This
course provides practice in English composition and reading analysis for students who are not yet ready for ENGL 212.
NOTE 1: This course does not count for credit within any English program.
NOTE 2: Students who have received credit for this course may not subsequently take any ESL course or ENGL 206 for credit.
NOTE 3: Students who have received credit for ENGL 209 may not take this course for credit.

## ENGL 208 Introduction to English Composition and Literary Analysis (6 credits)

Prerequisite: ENGL 207 or placement test. This course is intended for students who wish to improve their ability to engage in written analysis
of fiction, poetry, drama, and literary essays. NOTE 1: This course does not count for credit within any English program.
NOTE 2: Students who have received credit for this course may not subsequently take any ESL course or English course earlier in the composition sequence for credit.

ENGL 212 English Composition - Stage I (3 credits)
Prerequisite: ENGL 207 or placement test. This course is intended to help students produce clear, concise, logically organized essays and reports. Emphasis is placed on purpose, organization, development, sentence structure, and diction. NOTE 1: A GRADE OF "C-" OR HIGHER IN THIS COURSE MEETS THE UNIVERSITY WRITING TEST REQUIREMENT.
NOTE 2: Students who have received credit for this course may not subsequently take any ESL course or English course earlier in the composition sequence for credit.

ENGL 213 English Composition - Stage II (3 credits)
Prerequisite: ENGL 212. This course develops further the writing skills acquired in ENGL 212. The main purpose is to familiarize students with the process and techniques necessary for the preparation of research papers and academic reports.
NOTE 1: Students who have received credit for this course may not subsequently take any ESL course or English course earlier in the composition sequence.
NOTE 2: The composition sequence also includes ENGL 396, Advanced Composition and Professional Writing.

## ENGL 214 Grammar, Usage, and Style

 (3 credits)Prerequisite: ENGL 213. This course offers a practical analysis of the conventions governing contemporary English grammar and usage, punctuation, sentence structure, and syntax. It focuses on means for indentifying and analysing stylistic effectiveness and persuasive power in diverse professional situations.
NOTE: Students who have received credit for this course may not subsequently take any ESL course or ENGL 206-213 for credit.

## ENGL 215 Principles and Practice of Editing (3 credits)

Prerequisite: ENGL 214. This course includes basic copy editing and techniques for eliminating errors in style, mechanics, and facts, and substantive editing for identifying structural problems and reorganizing, reworking, and rewriting documents.
NOTE: Students who have received credit for this course may not subsequently take any ESL course or ENGL 206-214 for credit.

ENGL 216 Writing for Diverse Audiences (3 credits)
Prerequisite: ENGL 214. This course examines
the ways that information is presented to different audiences through writing and the interaction of texts and images. Assignments include analysis of informational and persuasive strategies in model discourses for form, content, style, and design, and the application of such techniques to developing and producing documents.
NOTE: Students who have received credit for this course may not subsequently take any ESL course or ENGL 206-214 for credit.

## ENGL 224 The Creative Process

 (3 credits)This course introduces students to the creative process involved in writing prose fiction, poetry, and drama, including the search for inspiration, the exploration and nurturing of the "germ" of a pattern or idea, and its development into artistic form. Course material is drawn from texts, letters, worksheets, and biographies of poets, prose writers, and playwrights, and combines lectures and discussions. While the course is not a writing workshop, students are invited to read widely, participate in discussions, and engage in some writing of poetry, fiction, or drama. The course is open to all students. NOTE: Students who have received credit for ENGZ 224 may not take this course for credit.

## ENGL 225 Creative Writing: Poetry

 (6 credits)This course is a workshop in the writing of poetry, including detailed discussions and written criticism of students' work. It includes the study of selected poems and poetics. NOTE: Students wishing to register for ENGL 225, 226, or 227, should refer to admission requirements for Creative Writing.

## ENGL 226 Creative Writing: Prose Fiction

 (6 credits)This course is a workshop in the writing of fiction, including an exploration of narrative forms and techniques as well as discussion and written criticism of students' work. Students are expected to read widely and to submit their own work for discussion and analysis.
NOTE: Students wishing to register for ENGL 225, 226, or 227, should refer to admission requirements for Creative Writing.

## ENGL 227 Creative Writing: Drama (6 credits)

This course is a workshop in the writing of plays, including an exploration of dramatic forms and techniques. Students are expected to read widely and to submit their own work for discussion and analysis.
NOTE: Students wishing to register for
ENGL 225, 226, or 227, should refer to admission requirements for Creative Writing.

## ENGL 230 Major Writers in English ( 6 credits)

This course is an introduction to major writers of British literature in their historical contexts.

The survey includes such authors as Chaucer, Shakespeare, Donne, Milton, Swift, Austen, Blake, Wordsworth, Byron, the Brownings, Tennyson, Hardy, Woolf, Joyce, and Eliot. NOTE: This course may not be taken for credit with ENGL 261 or 262. It is reserved for non-Majors.
NOTE: Students who have received credit for ENGL 270 or 272 may not take this course for credit.

ENGL 231 Medieval Literature in Translation (3 credits)
This course studies influential texts in the Western tradition written between 400 and 1500, with emphasis on the innovations in the various genres of narrative (epic, saga, romance, tale) and erotic and ethical discourse. Texts by such writers as Marie de France, Chrétien de Troyes, Dante, and Petrarch, may be studied, as well as anonymous works such as Icelandic sagas and The Song of Roland.

ENGL 233 Critical Reading ( 3 credits) This course is an introduction to the practice of close reading of selections chosen from poetry, fiction, drama, and non-literary prose with the aim of developing the skills necessary to respond to written texts.
NOTE: Students who have received credit for ENGL 271 may not take this course for credit.

ENGL 234 Poetry (3 credits)
Through a detailed examination of the various forms of poetry, this course is designed to familiarize students with the vocabulary and critical and technical concepts of the genre. NOTE: Students who have received credit for ENGL 275 may not take this course for credit.

ENGL 235N Short Fiction (3 credits)
Through a detailed examination of the various forms of short fiction and the novella, this course is designed to familiarize students with the vocabulary, critical concepts, and history of the genre.
NOTE: Students who have received credit for ENGL 280 may not take this course for credit.

ENGL 240 Drama ( 6 credits)
This course is an introduction to dramatic literature, principally in the Western tradition, and is designed to familiarize students with major works in this genre. Plays include ancient Greek dramas and works from the European as well as British and North American stages by such writers as Aeschylus, Sophocles, Aristophanes, Shakespeare, Calderòn, Webster, Racine, Molière, Büchner, Chekhov, Ibsen, Beckett, Handke, Stoppard, and Soyinka.

## ENGL 241 The Novel ( 6 credits)

This course is an introduction to major novels of the Western tradition, drawn principally from Britain, Europe, and the Americas. The course includes such authors as Cervantes, Fielding,

Lady Murasaki, Austen, Goethe, Stendahl, Flaubert, the Brontës, Eliot, Melville, Dostoevsky, Kafka, Tolstoy, James, Joyce, Mann, Kundera, and Marquez.

ENGL 242 Tragedy and Comedy ( 6 credits)
This course is an introduction to the nature and varieties of tragic and comic forms and sensibilities in Western literature. The course includes writers from antiquity to the present, such as in the tragic mode, Sophocles, Euripides, Shakespeare, Behn, Racine, Hardy, Ibsen, Lorca, Chopin, and in the comic mode, Aristophanes, Cervantes, Jonson, Molière, Sterne, Gogol, Wilde, Leacock, and Amis.

## ENGL 243 Satire ( 6 credits)

This course is an introduction to the nature, varieties, and functions of satire, including writers from antiquity to the present, such as Juvenal, Horace, Erasmus, Swift, Voltaire, Byron, Butler, Orwell, Waugh, Spark, Richler, Vonnegut, and Atwood.
NOTE: Students who have received credit for ENGL 283 may not take this course for credit.

## ENGL 244 Québec/Montréal Writing in English (3 credits)

This course surveys the literature of Québec written in English, with emphasis on Montréal writing. It includes such writers as F.R. Scott, MacLennan, Klein, Layton, Symons, Gallant, Richler, Cohen, Anderson, Glassco, and Mouré.

## ENGL 245 The Bible and Literature

 (3 credits)This course introduces students to the literary handling of Biblical materials and the literary uses of Biblical allusion in writings by such authors as Spenser, Milton, Bunyan, Blake, and T.S. Eliot.

NOTE: Students who have received credit for ENGL 385 may not take this course for credit.

ENGL 246N Science Fiction (3 credits) This introductory course explores the development of science fiction from Mary Shelley to H.G. Wells to the present day. Along with works by such authors as Huxley, Clarke, Dick, Delany, Le Guin, Atwood, or Gibson, translated works by such authors as Verne, Zamyatin, and Lem may be studied.
NOTE: Students who have received credit for ENGL 246 or 395 may not take this course for credit.

ENGL 247 Myth and Ideas in Literature (3 credits)
This course introduces students to the sources, literary developments, and continuing function of myths that inform and shape our ideas and literature.

ENGL 249 Children's Literature (6 credits) As an introductory survey of children's literature, this course includes works written primarily for
adults but traditionally also read by children, works specifically written for children, as well as fairy tales and other versions of folklore and myth written or adapted for children.
NOTE: Students who have received credit for ENGL 237 may not take this course for credit.

ENGL 250 Forms of Popular Writing (3 credits)
The topic of this course varies from year to year. It investigates such forms as spy novel, detective fiction, mystery, romance, travel writing, horror, and erotica in the context of the conventions, history, and popular appeal of the genre under discussion.

ENGL 260 Introduction to Literary Study (3 credits)
This course introduces students to the practice of literary criticism at the university level through reading and writing about a variety of literary texts while developing the tools to analyse them in a close and critical fashion. This entails attention to the fundamentals and varieties of literary criticism - genre, rhetorical and figurative language, and narrative structure - as well as some attention to the role of theory in literary study.
NOTE: Students who have received credit for ENGL 264, 265, or 266 may not take this course for credit.

ENGL 261 British Literature to 1660 (3 credits)
Starting with selected Old English texts in translation, the course examines the literary production of the medieval period and the fifteenth to seventeenth centuries in Britain. Works are studied in their social and historical contexts and, where possible, in relation to the other arts. The course may discuss Beowulf, Chaucer, Julian of Norwich, medieval drama, Malory, Skelton, Wyatt, Spenser, the Sidneys, Shakespeare, Webster, Donne, Lanyer, Burton, Browne, and Milton.
NOTE: Students who have received credit for ENGL 230 or 270 may not take this course for credit.

ENGL 262 British Literature from 1660 to 1900 ( 3 credits)
Prerequisite: ENGL 261 recommended. This course surveys literature written in Britain from the period following the Civil War and Commonwealth to the end of the Victorian era, periods traditionally labelled Neo-Classic, Romantic, and Victorian. The course considers such issues and forms as epic, mock-epic, satire, the development of the novel, the comedy of manners, the rise of the professional writer, the romantic lyric, the increasing activity of women writers, the origins of modernism, and the interrelations among the periods.
NOTE: Students who have received credit for ENGL 230 or 272 may not take this course for credit.

ENGL 298
Selected Topics in English (3 credits)

ENGL 299 Selected Topics in English (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## ENGL 302 History of the English

Language (3 credits)
This course examines changes in the English language from the Anglo-Saxon era to the present, considering such matters as pronunciation, inflections, syntax, vocabulary, and social distribution.
NOTE: Students who have received credit for ENGL 393 may not take this course for credit.

ENGL 303 Reading Women Writing ( 6 credits)
This course offers an historical and theoretical perspective on writings by women from different periods, cultural contexts, and expressive forms. A close reading of selected novels, short stories, plays, and of polemical, poetic, and autobiographical works raises such issues as class, race, and gender; sexuality and creativity; national, collective, and individual identity; literary and political strategies of resistance; the use, transformation and subversion of literary forms; the popular and critical reception of individual works. NOTE: Students who have received credit for ENGL 289 may not take this course for credit.

## ENGL 304 Chaucer ( 6 credits)

This course studies major texts of Geoffrey Chaucer with emphasis on Troilus and Criseyde and Canterbury Tales in terms of the social, literary, and historical issues opened by these texts.
NOTE: Students who have received credit for ENGL 312 may not take this course for credit.

## ENGL 310 Sixteenth-Century Prose and Poetry (3 credits)

This course investigates developments in non-dramatic literature from the late fifteenth century to the 1590s, through an examination of representative poems and prose works in their historical and cultural contexts. The course includes such writers as Skelton, Wyatt, Nashe, Spenser, Sidney, and Shakespeare.
NOTE: Students who have received credit for ENGL 317 may not take this course for credit.

## ENGL 311N Seventeenth-Century Prose and Poetry (3 credits)

This course examines the development of prose and lyric poetry from the 1590s through the Civil War and Commonwealth periods. It considers such issues as genre, form, the representation of subjectivity and gender, the function of patronage, and the shift to a print culture. The course includes such writers as Mary Sidney,

Jonson, Lanyer, Donne, Browne, Walton, Herbert, Wroth, and Marvell.
NOTE: Students who have received credit for ENGL 327 may not take this course for credit.

ENGL 316 Spenser (3 credits)
This course examines Spenser's works, especially The Faerie Queene, in relation to such topics as genre, literary tradition, and historical and cultural contexts.

## ENGL 318N English Renaissance Drama

 (3 credits)This course studies plays written in the period from the start of the English commercial theatre in 1576 until its closing in 1642, in terms of the development of dramatic forms, court and popular culture, and social history. The course includes such writers as Kyd, Marlowe, Middleton, Jonson, Cary, Webster, and Ford.
NOTE: Students who have received credit for ENGL 318 may not take this course for credit.

ENGL 319 Milton (3 credits)
This course examines Paradise Lost and selections from Milton's early poetry, especially Lycidas, in the contexts of seventeenth-century writing, politics, and religion.
NOTE: Students who have received credit for ENGL 328 may not take this course for credit.

ENGL 320 Shakespeare ( 6 credits)
This course examines a range of Shakespearean texts in relation to such matters as dramatic and theatrical conventions, social history, poetic language, high and popular culture, critical history, and influence.

## ENGL 321 Restoration and Early Eighteenth-Century Prose and Poetry ( 3 credits)

This course studies the non-dramatic writing of the period from the Restoration through the first four decades of the eighteenth century, with attention to such topics as the expansion of the reading public, the shift from a court-centred scene of literary production, the founding of the Royal Society, and formal topics, such as developments in satire, essay, and novel. Authors may include Cavendish, Dryden, Manley, Addison, Steele, Swift, Pope, Defoe, and Fielding.
NOTE: Students who have received credit for ENGL 333 may not take this course for credit.

## ENGL 322 Restoration and Eighteenth-

 Century Drama (3 credits)This course examines the changing role of the theatre in English culture from the Restoration to the end of the eighteenth century. It includes examples of comedies of Manners, Heroic Tragedies, She-tragedies, Sentimental Tragedies and Sentimental comedies by such writers as Etherege, Congreve, Behn, Trotter, Cibber, Sheridan, and Goldsmith.
NOTE: Students who have received credit for ENGL 335 may not take this course for credit.

ENGL 323 Literature of the MidEighteenth Century (3 credits)
This course examines the writing of the period from the 1740s to the 1780s by such authors as Sterne, Gay, Richardson, Lady Mary Wortley Montagu, Johnson, More, Gray, Collins, Gibbon, and Burke. It explores such concepts and modes as the sentimental, the epistolary, the sublime, and the writing of history and biography. NOTE: Students who have received credit for ENGL 334 may not take this course for credit.

ENGL 324 The Eighteenth- and Nineteenth-Century Novel (6 credits)
This course surveys developments in the British novel from its origins in documentary realism, satire, and romance, including the gothic, to the emergence of the novel as a dominant literary genre. The course includes works by such writers as Defoe, Fielding, Sterne, Radcliffe, Burney, Edgeworth, Austen, Dickens, the Brontës, Eliot, and Hardy.

## ENGL 325 Literature of the Romantic

 Period (6 credits)This course examines the prose and poetry of the Romantic period (ca. 1790 to 1830s) in relation to such topics as the French Revolution, the Napoleonic wars, domestic politics, literary conventions, and the idea of the poet. Among the poets to be considered are Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats. Some attention may be given to such writers as Dorothy Wordsworth, De Quincey, Hazlitt, the Lambs, Austen, Scott, Mary Shelley, and Peacock. NOTE: Students who have received credit for ENGL 338 may not take this course for credit.

## ENGL 330 Literature of the Victorian

Period (6 credits)
This course studies the poetry, fiction and other prose writings of such writers as Carlyle, Tennyson, the Brownings, the Brontës, Dickens, George Eliot, Newman, Rushkin, and Arnold. These works are examined in relation to such issues as class divisions, gender roles, the erosion of the authority of institutional religion, the increasing prestige of scientific explanation, the growth of British imperial power.
NOTE: Students who have received credit for ENGL 342 may not take this course for credit.

ENGL 331 Eighteenth- and NineteenthCentury Writing by Women (3 credits)
This course examines the poetry, prose, and drama of such writers as Astell, Manley, Finch, Haywood, Burney, Radcliffe, Edgeworth, Austen, Wollstonecraft, Shelley, the Brontës, and Eliot in such contexts as the gendering of authorship, the making of literary history, and the uses and transformations of literary conventions.
NOTE: Students who have received credit for ENGL 381 may not take this course for credit.

## ENGL 336 <br> Late Victorian and Edwardian

 Writing (3 credits)This course investigates such matters as late Victorian art and aesthetic theory, the rise of modernism, literary experimentation, and the interrogation of traditional values. Works are selected from such writers as Butler, Pater, Wilde, James, the Rossettis, Swinburne, Morris, Meredith, Schreiner, Hardy, Conrad, and Forster. NOTE: Students who have received credit for ENGL 352, 353 may not take this course for credit.

## ENGL 337 Twentieth-Century British Literature ( 6 credits)

This course examines modern and contemporary prose, poetry, and drama, and the formal, cultural, social, and political changes and upheavals of a century characterized as "the age of extremes". Works are selected from such writers as Joyce, Yeats, Mansfield, Woolf, Lawrence, Eliot, Auden, Bowen, Lessing, Hill, Hughes, Stoppard, Carter, Byatt, and Rushdie.
NOTE: Students who have received credit for ENGL 356 may not take this course for credit.

ENGL 340 Modernism ( 6 credits)
The congeries of experimental movements collectively identified as Modernism, flourishing from prior to World War I until World War II, renegotiated artistic conventions, revived neglected traditions, and turned attention to the primary materials of art (sound, colour, language). In painting emerged a tendency to abstraction, in music a tendency to atonality, and in literature to non-mimetic forms. Experiments abounded in disjunctive, elliptical, impressionistic, allusive, and mythopoeic styles. Avant-garde artists organized into numerous schools, including the Imagists, Surrealists, Dadaists, Constructivists, Futurists, and Vorticists. The literature, often produced by expatriates, was cosmopolitan, elitist, and provocative. Much of the most important work, appropriately enough in an era of female enfranchisement, was written by women. It was also the "Jazz Age", the nexus of which was the Harlem Renaissance. While the course focuses on the lively cross-fertilization of British and American writing, the international scope of Modernism is also emphasized, as well as its diversity (e.g. in ballet, cinema, music, and painting).
NOTE: Students who have received credit for ENGL 279 or 306 may not take this course for credit.

ENGL 341 Modern Fiction (3 credits) This course examines a developing international literary culture from the early twentieth century to the post-war period. Works are selected from such writers as Mann, Kafka, Proust, Stein, Camus, Borges, Nabokov, and Pynchon. NOTE: Students who have received credit for ENGL 307, 308 may not take this course for credit.

ENGL 345 Modern Drama (3 credits)
This course surveys the main currents of twentieth-century drama in a study of such writers as Ibsen, Chekhov, Strindberg, Lorca, Lady Gregory, Ionesco, Barnes, Beckett, Albee, Pinter, Orton, Stoppard, and Handke.
NOTE: Students who have received credit for ENGL 392 may not take this course for credit.

## ENGL 346 Modern European Literature

 ( 6 credits)This course surveys late nineteenth- and twentieth-century plays, poems, and novels in translation, chosen from such writers as Dostoevsky, Tolstoy, Ibsen, Chekhov, Gide, Sartre, Colette, Akhmatova, Svevo, Mann, Musil, Böll, and Calvino.
NOTE: Students who have received credit for ENGL 305 may not take this course for credit.

## ENGL 349 Modern Poetry in English

 (3 credits)This course studies the theory and practice of poets writing in English during the twentieth century. Examples are chosen from such writers as Yeats, Pound, Eliot, Crane, Stein, Auden, Stevens, Moore, Bishop, and Merrill, as well as from some more recent poets.
NOTE: Students who have received credit for ENGL 390 may not take this course for credit.

## ENGL 350 Contemporary Literature

 (6 credits)This course examines the relation between the concepts of the contemporary and the postmodern, through an examination of such writers as Amis, Calvino, Pynchon, Rushdie, Desai, Auster, Kureishi, Winterson, Carter, DeLillo, Dove, Heaney, Wilson, Kushner, Durang, and Walcott. NOTE: Students who have received credit for ENGL 459 may not take this course for credit.

## ENGL 351 Twentieth-Century Writing by Women (3 credits)

Through fiction, personal writings, poetry, and drama, this course examines gender and its discontents in turn-of-the-century and mid-century writing, in writing of the modernist period, and in writing of the politically oriented "second wave" of feminism of the 1960s and 1970s. Its concerns include the developing representation of race, class, and sexual orientation. Works are selected from such writers as Woolf, Hurston, Nin, Plath, Rich, Rule, Walker, Morrison, Cixous, Pollock, Gordimer, and El Saadawi.

## ENGL 354 Contemporary Writing by Women (3 credits)

This course deals with fiction, personal writings, poetry, and drama from the late 1970s to the present. Its concerns may include the challenges and possibilities of postmodernism; experiments in writing the life, writing the body, writing between genres, between cultures; collaborative writing; the uses and transformations of traditional and popular forms of writing. Works are selected
from such writers as Morrison, Desai, Munro, Marlatt, Scott, Maracle, Aidoo, Winterson, Gallant, Anzaldua, and Rendell.

ENGL 355 Joyce (3 credits)
This course will examine Joyce's Ulysses in its formal, historical, and cultural contexts. Other writings of Joyce may receive some attention.

## ENGL 359 Studies in Irish Literature

 (3 credits)The subject matter of this course varies. Topics may include the Irish Literary Revival, contemporary Irish literature, the Irish short story tradition.

ENGL 360 American Literature (6 credits) A survey of American literature from the colonial period into the twentieth century. Readings are drawn from such writers as Bradstreet, Emerson, Thoreau, Poe, Hawthorne, Melville, Whitman, Dickinson, Twain, James, Douglass, Chopin, Fitzgerald, and Faulkner.
NOTE: Students who have received credit for ENGL 285 may not take this course for credit.

ENGL 362 Studies in Science Fiction (3 credits)
The subject matter of this course varies. It may concentrate on a particular theme or issue, or on an important author or group of authors.

## ENGL 363 American Literature from Origins to Late Nineteenth Century (3 credits)

This course covers the various forms of American writing - fiction, biography, autobiography, letters, poems - from colonial times to the late 19th century through the work of such writers as Bradstreet, Taylor, Edwards, Wheatley, Emerson, Thoreau, Melville, Hawthorne, Poe, Twain, Whitman, Dickinson, Douglass, and Stowe. NOTE: Students who have received credit for ENGL 301 may not take this course for credit.

ENGL 364 American Literature from the Late Nineteenth to the Mid-Twentieth Century (3 credits)
This course studies the overlapping and related developments of naturalism, regionalism, realism, and modernism through the work of such writers as Twain, Stephen Crane, Dreiser, Chopin, Wharton, James, Fitzgerald, Hart Crane, O'Neill, Faulkner, Hemingway, Pound, Moore, Ellison, and Williams.

## ENGL 365 American Literature from

 Mid-Century to the Present (3 credits)This course considers developments in American literature since World War II through the work of such writers as Plath, Bishop, Baldwin, O'Connor, Bellow, Nabokov, Pynchon, Updike, Oates, Morrison, Barthelme, and Walker. NOTE: Students who have received credit for ENGL 309 may not take this course for credit.

ENGL 367 American Poetry (3 credits) This course considers the theory and practice of American poetry from the nineteenth century to the present through the work of such writers as Whitman, Dickinson, Robinson, Frost, H.D., Pound, Cummings, Stevens, Williams, Olson, Ginsberg, Snyder, Moore, Rukeyser, Bishop, Merrill, Rich, Ashbery, and Angelou.

## ENGL 368 African-American Literature

 (3 credits)This course provides a survey of the AfricanAmerican literary tradition from Frederick Douglass to the present, giving particular attention to slave narratives, the Harlem Renaissance, the Civil Rights Movement, and contemporary writing. The course includes the prose of such writers as Toomer, Larsen, Wright, Hurston, Ellison, Baldwin, Walker, and Reed, and poetry by such writers as Hughes, Brooks, Baraka, and Morrison.

ENGL 370 Canadian Literature ( 6 credits)
This course examines the development of Canadian literature from its beginnings to the present day through a series of representative works of prose and poetry, written in or translated into English.
NOTE: Students who have received credit for ENGL 287 may not take this course for credit.

## ENGL 373 Nineteenth-Century Canadian

 Literature (3 credits)This course studies the literature written in Canada in a variety of genres as the country evolved from colony to nation. It explores such topics as the relations among discourse, nation building, gender, and genre.

## ENGL 374 Canadian Fiction to 1950

 (3 credits)This course studies the themes and technical strategies of Canadian fiction from the 1890s to the mid-twentieth century by such authors as Roberts, Montgomery, Leacock, Callaghan, Ross, MacLennan, Mitchell, and Smart.

## ENGL 376 Postwar Canadian Fiction

 (3 credits)This course studies Canadian fiction from 1950 through the mid-1960s as it incorporates the lyrical and the documentary, the universal and the regional, the traditional and the experimental. Authors may include Roy, Wilson, Buckler, MacLennan, Watson, Wiseman, Cohen, and Richler.
NOTE: Students who have received credit for ENGL 371 may not take this course for credit.

## ENGL 377 Contemporary Canadian

 Fiction (3 credits)This course studies the continuity and development of Canadian fiction from the mid-1960s to the present. Authors may include Laurence, Davies, Carrier, Wiebe, Atwood, Munro, Kogawa, Shields, Gallant, and Ondaatje. NOTE: Students who have received credit for ENGL 372 may not take this course for credit.

## ENGL 378 Modern Canadian Poetry

(3 credits)
This course examines the changes in Canadian poetry from the beginning of the twentieth century to the mid-1960s by such authors as Pratt, Klein, Scott, Livesay, Birney, Page, Layton, Purdy, and Avison.
NOTE: Students who have received credit for ENGL 375 may not take this course for credit.

ENGL 379N Contemporary Canadian Poetry (3 credits)
This course examines the development of Canadian poetry from the mid-1960s to the present by such authors as Atwood, Ondaatje, Nichol, MacEwan, Kroetsch, Webb, Kogawa, Dewdney, and Brand.

## ENGL 380 First Nations/North American

 Native Literature (3 credits)This course studies the native literature of Canada and/or the United States, from oral performance traditions, transcriptions and translations into English, and writing in English by such authors as Johnston, Campbell, King, Highway, Momaday, Erdrich, Allen, and Silko.

## ENGL 382 Postcolonial and World Literature ( 6 credits)

A survey of literature in English from formerly colonized regions such as Africa, South Asia, North America, the South Pacific, and Caribbean. Through an examination of representative texts, the course addresses such issues as the process by which English spread throughout the world as a result of British imperialism, and the development of writing in English both before and during the period of decolonization. NOTE: Students who have received credit for ENGL 288 may not take this course for credit.

ENGL 383 African Literature (3 credits) This course considers how literature in English by writers from sub-Saharan Africa is embedded in the history and experience of colonization and decolonization. The course includes such authors as Achebe, Soyinka, Saro-Wiwa, Emecheta, Okri, Armah, Aidoo, Farah, Dangarembga, Coetzee, and Gordimer. The focus is on the political and aesthetic issues raised by African writing in English.

ENGL 386 Caribbean Literature (3 credits) This course explores how Caribbean literature in English from nations such as Barbados, Trinidad, Antigua, Jamaica, Grenada, St. Lucia, and Guyana is implicated in the history of slavery, colonialism, and postcolonialism. The work of such authors as Bennett, Walcott, Brathwaite, Goodison, James, Selvon, Lamming, Naipaul, Brodber, Cliff, and Kincaid is examined in relation to the writers' socio-cultural contexts and to the political and aesthetic issues raised by their texts.
ENGL 387 South Asian Literature (3 credits)
This course studies literature from South Asia
written in English by authors from India, Pakistan, Bangladesh, and Sri Lanka, such as Rushdie, Anand, Das, Narayan, Ghosh, Desai, Chaudhuri, Markandaya, Sahgal, Salvaduri, Sidhwa, Rao, and Mistry. The focus is on the significance of precolonial, colonial, and postcolonial sociocultural concerns as expressed in a variety of literary genres. Attention is given to English as a tool of colonization as well as a means for critiquing cultural hegemony.

## ENGL 388N Literature from Australia and New Zealand (3 credits)

This course examines literature in English from Australia and New Zealand by such writers as White, Malouf, Jolley, Carey, Stead, Mudrooroo, Stow, Johnson, Frame, Hulma, Wedde, and Kenneally. Central to the course is a discussion of the impact of colonialism, and the ongoing relationship between settler and aboriginal communities as it inflects a variety of literary genres. Literature from the Pacific islands may also be considered.

ENGL 390N Studies in Rhetoric (3 credits)
This course offers an inquiry into the nature and function of rhetoric, the art of convincing others, through an examination of such influential classical writers as Aristotle, Cicero, and Quintilian, as well as the place of rhetoric in contemporary critical discourse. This course offers, through written exercises, practical experience in the development of rhetorical techniques.
NOTE: Students who have received credit for ENGL 384 or 444 may not take this course for credit.

## ENGL 391 History of Criticism and

 Literary Theory ( 6 credits)This course surveys major theories of criticism in their historical contexts from the Classical period to the mid-twentieth century. Texts are chosen from such representative writers as Aristotle, Sidney, Dryden, Johnson, Lessing, Coleridge, Arnold, Richards, Eliot, Leavis, Empson, Bakhtin, Burke, and Frye.

## ENGL 394N Contemporary Critical Theory

 (3 credits)This course introduces students to various interpretive strategies in contemporary critical theory, through a study of such topics as structuralism, narratology, debates about genealogy, deconstruction, psychoanalytic theory, gender and performativity. Readings may include texts by Nietzsche, Saussure, Barthes, Foucault, Derrida, Eco, Austin, Cixous, and Sedgwick. NOTE: Students who have received credit for ENGL 389 may not take this course for credit.

ENGL 395N Technical Writing (3 credits) Prerequisite: ENGL 214, 215, 216. This course examines written and visual strategies for communicating information in technical fields. Practice includes experience in audience analysis and visual design in the preparation of such docu-
ments as technical abstracts, reports, proposals, descriptions, and instructional manuals.
NOTE: Students who have received credit for this course may not subsequently take any ESL course or ENGL 206-216 for credit.

ENGL 396 Advanced Composition and Professional Writing ( 6 credits)
Prerequisite: ENGL 213 or placement test. This course is intended for students already in control of the essentials of composition who wish to develop their ability to write effectively for business and professional purposes. NOTE: Students who have received credit for this course may not subsequently take any ESL course or ENGL 206-213 for credit.

ENGL 397 Business Writing (3 credits) Prerequisite: ENGL 214, 215, 216. This course examines written and visual strategies for communicating information in business contexts. Practice includes experience in audience analysis and visual design in the creation of such business documents as letters, memos, minutes, brochures, press releases, and company newsletters.
NOTE: Students who have received credit for this course may not subsequently take any ESL course or ENGL 206-216 for credit.

ENGL 398 Selected Topics in English (3 credits)

ENGL 399 Selected Topics in English (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ENGL 410 Non-Fiction Writing ( 6 credits) Prerequisite: ENGL 225 or 226 or 227 , or permission of the Department. This course is a workshop in the writing of creative non-fiction (journal, personal essay, travel, biography and autobiography) including the reading of selected texts and discussion and criticism of students' work.

ENGL 411 Script Writing for Radio, Screen, and Television ( 6 credits)
Prerequisite: ENGL 225 or 226 or 227, or permission of the Department. This course is a workshop in the composition and development of creative scripts for radio, screen, and television. In any one year, the course may concentrate on one or two of these areas.

## ENGL 412 Writing of Children's Literature

 ( 6 credits)Prerequisite: ENGL 225 or 226 or 227, or permission of the Department. This course is a workshop in the writing of prose, poetry, and drama for children, including an exploration of the literary techniques appropriate to the sensibilities of children.

ENGL 413 Publishing and Editing (6 credits)
Prerequisite: ENGL 225 or 226 or 227, or permission of the Department. This course explores such topics as the process of founding and operating small presses or magazines, producing anthologies, and editing individual manuscripts and books.

ENGL 425 Advanced Creative Writing: Poetry ( 6 credits)
Prerequisite: ENGL 225 or permission of the Department. Through intensive analysis and discussion of students' work, experimentation with a variety of forms, and selected reading, this workshop helps students extend their grasp of poetics and their competence in the writing of poetry.

ENGL 426 Advanced Creative Writing: Prose Fiction (6 credits)
Prerequisite: ENGL 226 or permission of the Department. Through intensive analysis and discussion of submitted work and directed reading in modern fiction, this workshop extends the development of students' narrative skills and their understanding of fictional forms.

ENGL 427 Advanced Creative Writing: Drama ( 6 credits)
Prerequisite: ENGL 227 or permission of the Department. Through reading of contemporary playwrights and intensive discussion and analysis of submitted work, this workshop helps students refine their skills in the process of completing a full-length play.

## ENGL 428 Advanced Studies in Creative

 Writing ( 6 credits)Prerequisite: ENGL 225 or 226 or 227, and one 400 -level creative writing workshop, or permission of the Department.

## ENGL 429 Advanced Studies in Creative

 Writing (3 credits)Prerequisite: ENGL 225 or 226 or 227 , and one 400 -level creative writing workshop, or permission of the Department.

These courses are advanced workshops whose subject and format are announced in the English Department Course Guide. These courses are intended for those who have already completed several workshops. Submission of a brief portfolio may be required for admission.

## ENGL 430 Old English ( 6 credits)

 Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies the language, literature, and culture of the Anglo-Saxon era, including such texts as elegaic lyrics and sections of Beowulf.ENGL 432 Middle English (6 credits) Prerequisite: Nine credits at the 300 level or permission of the Department. This course
studies the variety of texts in English dialects from 1200 to 1500, including such works as Sir Gawain and the Green Knight and other romances, Piers Plowman, Pearl, the Showings of Julian of Norwich, other religious and social discourse, lyrics, and drama.

## ENGL 434 Advanced Studies in Early

 English Literature (3 credits) Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.
## ENGL 435 Women Writers of the Early

 Modern Period (3 credits) Prerequisite: Nine credits at the 300 level or permission of the Department. This course examines the emergence into print of women writers from the late sixteenth to the late seventeenth centuries, by exploring such issues as the construction of literary history, histories of gender and sexuality, the relations between gender and genre. Works are chosen from such writers as Sidney, Sowernam, Wroth, Cary, Lanyer, Philips, Cavendish, Behn, Killigrew, Manley, and Trotter.
## ENGL 436 Literature of the Civil War and

 Commonwealth Period (3 credits)Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies the prose and poetry of the 1630s through the 1650s. It explores the ways in which the Civil War was represented by such writers as Herrick, Suckling, Cowley, Bradstreet, Milton and Marvell. Political tracts, journalism, and private papers and diaries may also form part of the material of the course.

ENGL 437 Advanced Studies in Renaissance and Early Modern Writing (3 credits)
Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

## ENGL 438 History, Politics, and Literature in the Eighteenth Century (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course examines the relations among the categories of history, politics, and literature, and their development as distinct discourses over the course of the century, through a study of such topics as the status of religion, the rise of science, the expansion of empire, the development of aesthetic discourse, and the construction of the category of the neoclassical.

ENGL 439 The Rise of Criticism and Literary History (3 credits)
Prerequisite: Nine credits at the 300 level or permission of the Department. This course traces the joint development of the discourses of literary criticism and literary history from 1660
to the legislation assigning copyright to authors in the late eighteenth century. Examples are drawn from such writers as Dryden, Dennis, Addison, Shaftesbury, Hume, and Johnson.

## ENGL 440 Advanced Studies in Late Seventeenth- and EighteenthCentury Writing (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

## ENGL 441 Forms of Eighteenth- and

 Nineteenth-Century Fiction (3 credits)Prerequisite: Nine credits at the 300 level or permission of the Department. This course may focus on a single writer, a type of fiction such as the gothic or the epistolary, or a particular issue in the development of the novel, such as realism or the emergence of women's fiction.

ENGL 442 Comparative NineteenthCentury Literature (3 credits)
Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies literary developments in the United Kingdom, the United States, and Canada, including such issues as Romanticism, the development of national literatures, conceptions of place and landscape, and responses to cultural change.

## ENGL 443 Advanced Studies in Nineteenth-Century Literature (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 445 Gender and Sexuality: Contemporary Literature and Theory (3 credits)
Prerequisite: Nine credits at the 300 level or permission of the Department. This course examines the development of the terms "gender" and "sexuality" as categories of historical analysis and literary interpretation, by reading feminist and queer theories of gender and sexuality, such as those of Rubin, Butler, Sedgwick, and Bredbeck, alongside such literary texts as those by Stein, Cooper, Tremblay, and Winterson.

## ENGL 446 Advanced Studies in

 Twentieth-Century Writing (3 credits)Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

## ENGL 447 Advanced Studies in Literary

 Theory (3 credits)Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 448 The American Renaissance (3 credits)
Prerequisite: Nine credits at the 300 level or permission of the Department. This course examines both the twentieth-century critics who established and developed the concept of the American Renaissance, and the group of antebellum authors who were chosen as its exemplars, including Emerson, Melville, and Whitman. It also interrogates contemporary critical revisions of that canon, broaching the larger issue of canon formation.

## ENGL 449 The American Postmodern

 (3 credits)Prerequisite: Nine credits at the 300 level or permission of the Department. This course focuses on postmodern American writers in the context of the critical debates about what constitutes the postmodern: formally, generically, and politically. It considers such writers as Antin, Ashbery, Waldman, Pynchon, Barthelme, Barth, Acker, Ford, and Morrison.

ENGL 450 Advanced Studies in American Literature (3 credits)
Prerequisite: Nine credits at the 300 level or permission of the Department. A seminar on a selected topic, text, or author. Specific content varies from year to year.

ENGL 451 History and Ideology in Canadian Literature (3 credits)
Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies the treatment in Canadian literature of such historical and political events, issues, and ideologies as the Conquest, the railroad, the threat of American domination, immigration, and the Canadian west.

## ENGL 452 Recent Experiments in

 Canadian Writing (3 credits)Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies contemporary writing that breaks with or interrogates traditional literary genres and forms. Examples are drawn from such authors as Kroetsch, Marlatt, Ondaatje, Highway, Dewdney, Mouré, and Nichol.
NOTE: Students who have received credit for ENGL 293 may not take this course for credit.

ENGL 453 Advanced Studies in Canadian Writing (3 credits)
Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 454 Advanced Studies in Postcolonial Writing (3 credits)
Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 470 Honours Seminar (3 credits) Prerequisite: Enrolment in Honours English and 30 credits in English. The topic of this course varies from year to year. The course provides the opportunity for final-year Honours students to apply their experience of literature, literary theory, and criticism on a more advanced level. NOTE: In consultation with the Honours/Majors adviser, Honours students may substitute another course at the 400 level for ENGL 470.

## ENGL 474 Honours Essay (3 credits)

Prerequisite: Enrolment in Honours English and 30 credits in English. With the permission of the Department, an Honours student may arrange a tutorial program with a faculty member, culminating in the writing of a long paper.

ENGL 480 Independent Studies (3 credits) Prerequisite: Enrolment in an English program and nine credits at the 300 level. With the permission of the Department, a student may arrange a tutorial program with a faculty member.

## ENGL 490 Joint Tutorial in History and

 English (6 credits)Prerequisite: Enrolment in an English program or nine credits in English Literature. A tutorial for students in an English and History Joint Specialization program.

ENGL 498 Advanced Topics in English (3 credits)

ENGL 499 Advanced Topics in English (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

### 31.120 <br> EXERCISE SCIENCE

Chair<br>WILLIAM R. SELLERS, Associate Professor<br>ALAIN LEROUX<br>GERALD ZAVORSKY<br>Lecturer<br>Associate Professors<br>GEORGE D. SHORT<br>SHIPING MA<br>DAVID L. PARIS<br>Adjunct Professors<br>BARRY GAMBERG<br>ILKA LOWENSTEYN<br>RICHARD POUND<br>STUART ROBERTSON<br>KEITH MICHAEL WILKINSON<br>Assistant Professors<br>ROBERT BOUSHEL<br>RICHARD COURTEMANCHE<br>RICHARD DEMONT

| Location | Loyola Campus <br> Science Complex <br> $(514)$ <br> (148-3327 |
| :--- | :--- |

Department
Objectives
The Department of Exercise Science is committed to teaching and research in the areas of exercise, health, and physical activity while emphasizing the fields of athletic therapy and clinical exercise physiology. The curriculum permits students to explore the biomechanical, physiological, and psychological responses to physical activity of healthy individuals and persons with a variety of impairments and disabilities. Lectures and laboratories are combined with supervised involvement in community and professional activities. Students are provided with an education which is compatible with obtaining employment in the health and fitness field or continuing their studies in health-related professional or graduate schools.

The BSc Major and Specialization programs in Exercise Science provide students with the opportunity to acquire essential knowledge and a strong foundation in the field of exercise science. Students are exposed to a concentrated series of courses that incorporate the application of biological sciences to exercise, physical activity, and health-related areas including athletic therapy and clinical exercise physiology.
The fundamental concepts associated with Clinical Exercise Physiology (CEP) include the adaptation of traditional exercise forms, assessment techniques, and training protocols which address the needs of individuals with a disease or functional disability (e.g. heart disease, diabetes, neurological disorders, etc.). Students entering the field of CEP acquire an appreciation of persons with a disability, their lifestyle, and their exercise possibilities. The form of exercise application ranges from adapted physical activities to competitive sports.
The BSc Specialization in Exercise Science/Athletic Therapy is accredited by the Canadian Athletic Therapists Association (CATA) and is directed toward the preparation of students seeking to become a Certified Athletic Therapist in Canada (C.A.T.[C]). A Certified Athletic Therapist (or C.A.T.[C]) is devoted to the health care of physically active individuals. The scope of practice of the CATA includes prevention, immediate care, and reconditioning of musculoskeletal injuries. Some of the techniques used to accomplish prevention of injury are postural evaluation, conditioning, and providing prophylactic support. Immediate care and rehabilitation of musculoskeletal injury consist of injury assessment, first aid and emergency care, exercise and modality therapy, and preparing individuals for safe return to physical activity or athletic participation. Student members (certification candidates) of the CATA must fulfil the academic and practical requirements of a program accredited by the CATA in order to enter the CATA certification exam process.
While the Major addresses the core applied-science, health, and fitness courses, the Specialization offers additional courses providing a theoretical knowledge base in athletic therapy and clinical exercise physiology. Students graduating from the BSc Specialization program possess the academic background compatible with entry requirements into programs leading to professional, vocational, and post-graduate opportunities.

Any newly admitted Exercise Science student may select to enter into either the BSc Major, BSc Specialization, BSc Specialization in Athletic Therapy, or the BSc Specialization in Clinical Exercise Physiology programs. Students enrolled in the BSc Specialization in Athletic Therapy or the BSc Specialization in Clinical Exercise Physiology must maintain an annual GPA of not less than 3.00 calculated for courses required within their program. Students in the Athletic Therapy program must complete at least 50 hours of professional observation approved in advance by the Department in the field and clinical settings during the first year of study in order to remain in the Athletic Therapy program.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

| 63 | BSc Specialization in Exercise Science Stage I | 66 | BSc Specialization in Exercise Science Clinical Exercise Physiology |
| :---: | :---: | :---: | :---: |
| 21 | EXCI $200^{3}, 210^{3}, 253^{3}, 254^{3}, 257^{3}, 261^{3}$; INTE $296^{3}$ | 27 | Stage I <br> EXCI $200^{3}, 210^{3}, 253^{3}, 254^{3}, 257^{3}, 261^{3}$; |
| 6 | CATA $262{ }^{3}, 263^{3}$ |  | CATA 262 ${ }^{3}$, $263^{3}$; INTE $296{ }^{3}$ |
|  | Stage II |  | Stage II |
| 18 | EXCI $342^{3}, 351^{3}, 355^{3}, 357^{3}, 358^{3}, 380^{3}$ | 21 | EXCI $342^{3}, 351^{3}, 355^{3}, 357^{3}, 358^{3}, 380^{3}$, |
| 3 | CATA $338{ }^{3}$ |  | $383^{3}$ |
|  | Stage III |  | Stage III |
| 9 | EXCI $422^{3}, 445^{3}, 451^{3}$ | 15 | EXCI $422^{3}, 423^{3}, 445^{3}, 451^{3}, 483^{3}$ |
| 6 | Chosen from EXCl $423^{3}, 452^{3}, 455^{3}$, $458^{3}$; CATA $438^{3}$ | 3 | Chosen from EXCI 455 ${ }^{3}, 458{ }^{3}$ |
| 72 |  | 42 | BSc Major in Exercise Science |
| 72 | BSc Specialization in Exercise Science/ Athletic Therapy | 21 | Stage I <br> EXCI 20 |
|  | Stage I |  | CATA 2623; ${ }^{\frac{3}{3}}$ INTE $296{ }^{\frac{3}{3}}$ |
| 21 | EXCI $200{ }^{3}, 210^{3}, 253^{3}, 254^{3}, 257^{3}, 261^{3}$; |  | Stage II |
|  | INTE $296^{3}$ | 15 | $\text { EXCI } 342^{3}, 351^{3}, 355^{3}, 357^{3}, 358^{3}$ |
| 6 | CATA $262^{3}, 263^{3}$ |  | Stage III |
|  | Stage II | 3 | EXCI $445^{3}$ |
| 15 11 | EXCI $342^{3}, 351^{3}, 355^{3}, 357^{3}, 358^{3}$ CATA $330^{1}, 338^{3}, 340^{1}, 348^{3}, 390^{3}$ | 3 | Chosen from EXCl $421^{3}, 452^{3}, 455^{3}$, |
|  | Stage III |  |  |
| 3 | EXCI $445^{3}$ |  |  |
| 3 | Chosen from EXCl $451^{3}, 452^{3}$ |  |  |
| 13 | CATA $430^{1}, 438{ }^{3}, 447^{3}, 462^{3}, 480^{3}$ |  |  |

Stage I
EXCI $200^{3}, 210^{3}, 253^{3}, 254^{3}, 257^{3}, 261^{3}$; NTE 296
CATA $262^{3}, 263^{3}$
Stage II
3 CATA 338 Stage III
EXCI $422^{3}, 445^{3}, 451^{3}$ $458^{3}$; CATA $438^{3}$

72 BSc Specialization in Exercise Science/ Athletic Therapy
Stage I
21 EXCI $200^{3}, 210^{3}, 253^{3}, 254^{3}, 257^{3}, 261^{3}$; NTE

Stage II
15 EXCI $342^{3}, 351^{3}, 355^{3}, 357^{3}, 358^{3}$
CATA 330 , $338^{\circ}, 340,348^{\circ}, 390^{\circ}$
EXCl $445^{3}$
3 Chosen from EXCI $451^{3}, 452^{3}$
13 CATA $430^{1}, 438^{3}, 447^{3}, 462^{3}, 480^{3}$

66 BSc Specialization in Exercise Science/ Clinical Exercise Physiology Stage I
27 EXCI $200^{3}, 210^{3}, 253^{3}, 254^{3}, 257^{3}, 261^{3}$; CATA $262^{3}, 263^{3}$; INTE $296^{3}$ Stage II
21 EXCI $342^{3}, 351^{3}, 355^{3}, 357^{3}, 358^{3}, 380^{3}$, $383^{3}$ Stage III
5 EXCl $422^{3}, 423^{3}, 445^{3}, 451^{3}, 483^{3}$
3 Chosen from EXCI $455^{3}, 458^{3}$
42 BSc Major in Exercise Science Stage I
21 EXCI $200^{3}, 253^{3}, 254^{3}, 257^{3}, 261^{3}$; CATA 262 ${ }^{3}$; INTE 296 Stage II
15 EXCI $342^{3}, 351^{3}, 355^{3}, 357^{3}, 358^{3}$ Stage III
3 EXCl $445^{3}$ $458^{3}$

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## CATA:

(3 credits)
Prerequisite: EXCl 253 previously or concurrently. This course identifies common emergency situations in the athletic environment, and provides theoretical and practical components of management skills to safely deal with these situations. Specific signs and symptoms of basic emergency conditions are discussed. Planning of events to prepare for sport-related emergencies and administration of initial emergency techniques are included. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 262 may not take this course for credit. NOTE: Corporation Thérapeutes du Sport du Québec (CTSQ) accepts successful completion of this course as equivalent to a first aid course which is a partial requirement towards provincial recognition as a Level I Sport First Aider.
CATA 263 Principles of Athletic Therapy (3 credits)
Prerequisite: CATA 262. The course considers
topics in athletic therapy from professional, preventive, and pathological perspectives. The course deals with injury classification, clinical flexibility, strength testing, cryotherapy, and sports dermatology. Preventive techniques such as pre-season physical examinations, protective equipment, hazard recognition, and taping techniques are also addressed. Acute and chronic pathologies associated with physical activity, as well as issues including sudden death and communicable diseases in athletics, and the adolescent athlete will be discussed. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 263 or 335 may not take this course for credit.

## CATA 330 Assessment and Rehabilitation Laboratory I (1 credit)

Prerequisite: CATA 263, 338 previously or concurrently, enrolment in the Exercise Science/Athletic Therapy Specialization. This is a practical laboratory course in assessment and rehabilitation with specific concentration on the
extremities. The student receives hands-on exposure to tests for active and passive joint ranges of motion, muscle strength, and neurological deficits. Special tests to help identify various pathologies will be introduced. History taking and palpatory skills are also presented. This laboratory course will emphasize assessment, treatment decisions, and guidelines for progression of therapy of the upper and lower extremities. Laboratory only.
NOTE: Students who have received credit for EXCI 330 or 336 may not take this course for credit.

## CATA 338 Assessment and Rehabilitation

 I: The Extremities (3 credits)Prerequisite: CATA 263 and acceptance into the Exercise Science Specialization. This course examines clinical assessment and rehabilitation protocols. Topics include assessment of medical status, evaluation protocols, tissue healing, and postural asymmetries. Applied anatomy, assessment, and surgical procedures of orthopaedic injuries to upper and lower extremities, and concomitant rehabilitation programs are presented. Lectures only.
NOTE: Students who have received credit for EXCI 336 or 338 may not take this course for credit.

## CATA 340 Therapeutic Modalities in Sports Medicine Laboratory (1 credit)

Prerequisite: CATA 348 previously or concurrently. This is a practical laboratory course in therapeutic modalities which are used in the sports medicine clinic or athletic therapy room. After review of body physiological responses to trauma, instructions will relate to how each modality will affect the injury response process. The student will be introduced to each modality's instrumentation, learn how to set it up prior to treatment, and practice application for various pathologies. An introduction to manual therapies such as mobilization and massage will be presented. Indications, contraindications, and precautions for all treatment protocols will be given. Laboratory only.
NOTE: Students who have received credit for EXCI 340 may not take this course for credit.

## CATA 348 Therapeutic Modalities in Sports Medicine (3 credits)

Prerequisite: CATA 338 and enrolment in the Exercise Science/Athletic Therapy Specialization. Students are introduced to the parameters of therapeutic modalities and their physiological effects. Various modalities such as heat, cold, ultrasound, muscle stimulation, interferential currents, T.E.N.S., and therapeutic massage are examined. Mobilization techniques and acupuncture principles are introduced. Indications and contraindications for all treatments are presented. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 348 or 448 may not take this course for credit.

CATA 390 Athletic Therapy Field Internship (3 credits)
Prerequisite: CATA 263 and acceptance into the Exercise Science/Athletic Therapy Specialization. This course offers students the opportunity to work in an emergency or preventive setting with a sports team, although some clinical component may be introduced. Students must be certification candidates of the Canadian Athletic Therapists Association (CATA) and the Québec Corporation of Athletic Therapists (QCAT). This course involves a commitment of 150 hours including a weekly seminar.
NOTE: Students who have received credit for EXCI 390 or for this topic under an EXCI 398 number may not take this course for credit.

## CATA 430 Assessment and Rehabilitation Laboratory II (1 credit)

Prerequisite: CATA 330, 338, and 438 previously or concurrently. This is a practical laboratory course in assessment and rehabilitation with specific concentration on the spine and pelvis. Students receive hands-on exposure to tests for active and passive joint ranges of motion, muscle strength, and neurological deficits. Special tests to help identify various pathologies are introduced. History taking and palpatory skills are also presented. This laboratory course emphasizes assessment, treatment decisions, and guidelines for progression of therapy of the spine and pelvis. Laboratory only.
NOTE: Students who have received credit for EXCI 339 or 430 may not take this course for credit.

## CATA 438 Assessment and Rehabilitation II: Spine and Pelvis (3 credits)

Prerequisite: CATA 338. This course examines clinical assessment and rehabilitation protocols. Topics include chart recording, proprioception, open and closed kinetic chains, and gait analysis. Applied anatomy, assessment, and surgical procedures of orthopaedic injuries to the temporomandibular joint, cervical, thoracic and lumbar spine, and to the pelvis are examined. Concomitant rehabilitation programs are presented. Lectures only.
NOTE: Students who have received credit for EXCI 336 or 339 or 438 may not take this course for credit.

## CATA 447 Special Topics in Athletic Therapy (3 credits)

Prerequisite: CATA 348. This course focuses on recent research outcomes and new issues in athletic therapy specific to prevention, assessment, and rehabilitation of athletic injuries. The course content varies within the domains of the Canadian Athletic Therapy Association depending upon the most current issues such as surgical techniques, new medications, advanced assessment and modality techniques, and issues related to professional development and the workplace environment. Information is presented from a
variety of courses and disciplines to enhance the knowledge base received from core Athletic Therapy courses. Lectures only.

## CATA 462 Advanced Emergency Care

 (3 credits)Prerequisite: CATA 262 and enrolment in the Exercise Science/Athletic Therapy Specialization. This course completes the preparation of Athletic Therapy students in the area of emergency care of sports-related injury. It identifies the less common and more complicated emergency situations experienced in the athletic therapy setting. Advanced theoretical and practical components are presented. This course develops the ability of the student to care for the athlete beyond the initial stages of emergency management and towards advanced life support. Lectures and laboratory.

CATA $480 \quad$ Athletic Therapy Clinical Internship (3 credits) Prerequisite: CATA 348, 390; EXCI 358. Students must be certification candidates of the Canadian Athletic Therapists Association and the Québec Association of Athletic Therapists. The course offers a supervised period of work in a rehabilitation or athletic therapy clinic. The course involves a commitment of 150 hours including a weekly seminar.
NOTE: Students who have received credit for EXCI 460 or 480 , or for this topic under an EXCI 499 number may not take this course for credit.

EXCI:

## EXCI 200 Introduction to Exercise

Science, Physical Activity and Health (3 credits)
Prerequisite: Enrolment in an Exercise Science program. This course introduces students to the field of exercise science as a discipline and profession. Using classic epidemiological studies, students are exposed to the role of physical activity on morbidity and mortality. Primary and secondary health-risk factors are examined relative to the influence physical activity has on them and one's quality of life. Also addressed are methods and techniques employed to develop positive attitudes and habits (lifestyle behaviours) supporting an active lifestyle, with the specific intent of increasing exercise adherence and compliance. Lectures only.
NOTE: Students who have received credit for EXCI 201 may not take this course for credit.

## EXCI 202 The Body Human: Form and Function (3 credits)

This course provides insight into the manner in which common injuries and diseases impact on the anatomical structures and functional systems of the body. The various medical treatments and procedures available to maintain or restore the structural and functional integrity of the body are
also addressed. Conditions of a cardiovascular, pulmonary, neuromuscular, metabolic and oncologic nature are discussed.
NOTE: Students who have received credit for this topic under an EXCI or EXCZ 298 number may not take this course for credit.
NOTE: Exercise Science students may not take this course for credit.

EXCI 204 Food for Sport (3 credits)
The course introduces students to a basic understanding of how the digestive system functions, and then examines the role of diet on sport performance. Students learn about the impact of the major food stuffs (carbohydrates, fats, proteins, vitamins, minerals, water) on performance outcomes. The use of ergogenic aids commonly used to enhance sport performance are also discussed with respect to their effectiveness. Caloric balance, diet and body composition are also discussed relevant to specific sport requirements.
NOTE: Students who have received credit for this topic under an EXCl 298 number may not take this course for credit.
NOTE: Exercise Science students may not take this course for credit.

EXCI 206 The Science of Sport (3 credits)
The course introduces basic and practical knowledge of human movement in sports and physical activity. Anatomical and physiological knowledge pertinent to body movement is presented in simple and meaningful terms. Biomechanical concepts and principles applied to body movement in different sports and physical activities are also addressed. Consideration is also given to nutritional aspects and injury prevention in sport and exercise.
NOTE: Students who have received credit for this topic under an EXCl 298 number may not take this course for credit.
NOTE: Exercise Science students may not take this course for credit.

EXCI 210 Introduction to Adapted and Therapeutic Physical Activity (3 credits)
Prerequisite: Enrolment in an Exercise Science program. This course differentiates between adapted and therapeutic approaches to physical activity with respect to their historical development, inherent principles, types of disabilities and disease conditions, demographics and epidemiological data. Lectures only.

## EXCI 218 Physical Growth and

 Maturation (3 credits)This course considers normal and abnormal growth and maturation patterns of the musculoskeletal, neural, hormonal, cardiovascular, and respiratory systems of the body. In addition, socialization and psychosocial development processes with relevance to an exercise or sports environment are examined. These patterns and processes are investigated from
childhood through adolescence and adulthood. Lectures only.
NOTE: Students who have received credit for EXCI 308 may not take this course for credit. NOTE: Exercise Science students may not take this course for credit.

EXCI $233 \quad$ Current Issues in Personal and Community Health ( 3 credits)
This course presents an overview of factors influencing personal and community health. Students are exposed to prevalent physical and mental health issues from biological, psychological, and sociological points of view. Healthrelated consequences of alcohol abuse, drugs, birth control, sedentary lifestyle, eating disorders, and communicable diseases are among the topics considered. Lectures only.
NOTE: Students who have received credit for EXCI 333 may not take this course for credit. NOTE: Exercise Science students may not take this course for credit.

## EXCI $251 \quad$ Fundamentals of Health and

 Physical Activity (3 credits)The basic and contemporary issues of health and physical activity are discussed. General topics regarding the benefits of physical activity are examined from anatomical and physiological perspectives. Lectures only.
NOTE: Students who have received credit for EXCZ 251 may not take this course for credit. NOTE: Exercise Science students may not take this course for credit.

EXCI 253 Human Anatomy I: Musculoskeletal Anatomy (3 credits)
Prerequisite: Enrolment in an Exercise Science program. The major focus of this course covers the anatomy of the musculoskeletal system and accompanying (peripheral) circulatory and neurological systems. It also addresses introductory terminology and tissue differentiation. The structures are examined through approaches of surface anatomy, current and traditional media and/or cadaver examination. Lectures and laboratory.

## EXCI 254 Human Anatomy II: Systemic

 Anatomy (3 credits)Prerequisite: Enrolment in an Exercise Science program. The major focus of this course covers the anatomy of the central circulatory and central respiratory systems. It also addresses the anatomy of the brain and spinal column as well as the integumentary, digestive, and urogenital systems. The structures are examined through approaches of surface anatomy, current and traditional media and cadaver examination. Lectures and laboratory.

EXCI 257 Human Physiology I: The Neurological, Bio-energetic and Endocrine Systems (3 credits)
Prerequisite: EXCI 254 previously or concurrently.

This course surveys the functional organization and integration of the major systems of the body. A strong focus is placed on the fundamental control and operation of the nervous system, the mechanics and energetics of skeletal muscle function, and the actions of hormones comprising the endocrine and reproductive systems. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 353 may not take this course for credit.

## EXCI 261 Physical Activity Programming for Health and Performance

 (3 credits)Prerequisite: Enrolment in an Exercise Science program. This course provides students with an exposure to the principles of planning group exercise programs, and the applications of teaching techniques and skills to lead safe and effective group exercise. Several modes of activities and techniques are included, such as high and mixed aerobics, step aerobics, slide, exercise walking, "spinning", indoor cycling, jogging, interval training, circuit training, aqua fitness, muscle conditioning and flexibility. Lectures and laboratory.

## EXCI 275 The Principles, Strategies and

 Styles of Leadership (3 credits)This course examines the art of leadership and the science of management through lectures, workshops, and practical laboratory settings. Using fundamental theories, principles and concepts, this course will assist the student in the development of specific skills and strategies in acquiring an understanding of the various leadership styles. The format for this development will be accomplished using group activities, initiation tasks, simulations, and case studies. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 270 or 370 may not take this course for credit.

EXCI $298 \quad$| Selected Topics in Exercise |
| :--- |
| Science (3 credits) |

EXCI 299 Selected Topics in Exercise Science (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## EXCI 342 Physical Fitness Assessment and Exercise Intervention

 (3 credits)Prerequisite: EXCl 261; INTE 296. This course focuses on the fundamentals of fitness assessment and the design of individualized exercise programs compatible with the responsibilities of a health/fitness instructor. Topics of study include screening clients for fitness testing and physical activity participation; the selection of appropriate health fitness tests (body composition, cardiovascular endurance, musculoskeletal); assessment of
test results; and the application of exercise principles in the design of safe and effective individualized exercise prescriptions for the apparently healthy client. Lectures and laboratory.

EXCI 351

## Introduction to the Biomechanics of Human Movement (3 credits)

Prerequisite: EXCI 253; PHYS 204, 224 or equivalent. The primary focus of this course concentrates on the mechanical principles of human movement. Fundamental principles of kinematics and kinetics are examined in a theoretical and practical context. Lectures and laboratory.

## EXCI 355 Neural Control of Human Movement (3 credits)

Prerequisite: EXCI 254, 257. Following a brief review of the nervous system anatomy and the functional properties of the neuron, students are introduced to the basic principles of the neural control of human movement, including reference to the sensory systems (visual, auditory, vestibular, proprioceptive and kinesthetic). Select pathologies and disorders of the nervous system and their resulting neuromuscular deficits are presented, as well as neuro-rehabilitative techniques and strategies. Lectures only.

EXCI 357 Human Physiology II: The Cardiovascular and Respiratory Systems (3 credits)
Prerequisite: EXCI 257. This course deals with the structural, the fundamental mechanisms and the functional control of the cardiovascular and respiratory systems. A detailed analysis of the rhythmical control of the heart, cardiovascular hemodynamics, capillary and coronary circulations, control of arterial blood pressure, the regulation of heart rate, cardiac output, and the peripheral vasculature is discussed. With respect to respiratory physiology, selected topics including pulmonary mechanics, principles of gas exchange and diffusion, transport of oxygen and carbon dioxide in the blood, and the regulation of respiration are addressed. Lectures and laboratory.

EXCI 358 Physiology of Exercise (3 credits)
Prerequisite: EXCI 357. This course deals with the physiological adjustments and adaptations to physical activity. Special emphasis is placed on examining the functional capacity of the cardiovascular, respiratory, neuromuscular, and endocrine systems to acute exercise and the process of adaptation to exercise training. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 456 may not take this course for credit.

EXCI 380 Adapted Physical Activity (3 credits)
Prerequisite: EXCI 210 and acceptance into the Exercise Science Specialization or Exercise

Science/Clinical Exercise Physiology Specialization. This course examines the pathology associated with selected physical impairments and disabilities including sensorial, neurological, and orthopaedic conditions. Appropriate adapted physical activities are presented together with contraindications to physical activity and the role of environmental factors. Students experience clinical environments through field-trip activities. Lectures only.

## EXCI 383 Clinical Exercise Physiology

 Internship I (3 credits)Prerequisite: Acceptance into the Exercise Science/Clinical Exercise Physiology Specialization. This course offers students the opportunity to observe and participate in physical activity programming offered for special populations (i.e. persons with neurological and physical impairments) under a supervised setting. This course involves a commitment of 120 hours including a weekly seminar.

## EXCl 398 Selected Topics in Exercise Science (3 credits) <br> EXCI 399 Selected Topics in Exercise Science (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## EXCI 421 Fitness and Sport Management (3 credits)

Prerequisite: Completion of 30 university credits. The focus of this course is on effective planning, organization, and management of fitness and sport organizations, and athletic facilities. Concepts include administrative leadership, event planning, financial management, legal aspects, public relations, fundraising and marketing techniques as well as sport licensing.

EXCI 422 Pathophysiology, Assessment and Rehabilitation in Clinical Exercise Science I (3 credits)
Prerequisite: EXCI 342,358 or equivalent and enrolment in the Exercise Science/Clinical Exercise Physiology Specialization. This course reviews pathophysiology, medical intervention techniques, and medication profiles of the most common cardiovascular, respiratory, oncologic and metabolic diseases. Following an analysis of the published research outcomes, a review of the assessment techniques and rehabilitation programs is conducted in order to provide students with the required knowledge base for the design of safe and effective programming. Lectures only.
NOTE: Students who have received credit for EXCI 404 may not take this course for credit.

EXCI 423 Pathophysiology, Assessment and Rehabilitation in Clinical Exercise Science II (3 credits)
Prerequisite: EXCI 342,358 or equivalent and
enrolment in the Exercise Science/Clinical Exercise Physiology Specialization. This course reviews pathophysiology, medical intervention techniques, and medication profiles of the most common neuromuscular and orthopaedic diseases and disabilities. Following an analysis of the published research outcomes, a review of the assessment techniques and rehabilitation programs is conducted in order to provide students with the required knowledge base for the design of safe and effective programming. Lectures only.

## EXCI $445 \quad$ Nutrition in Exercise and Sport (3 credits)

Prerequisite: EXCI 358. This course provides an overview of the anatomy and in-depth study of the physiology of the digestive system prior to examining the significance of carbohydrates, lipids, and proteins as essential nutritional requirements for physical activity and optimal performance. The importance of trace minerals and vitamins is also discussed. Specific issues such as the use of nutritional beverages, ergogenic aids, eating disorders, and nutritional concerns of athletes are some of the topics presented. Lectures only.

## EXCI 451 Clinical Biomechanics (3 credits)

Prerequisite: EXCI 351, 355 previously or concurrently. This course addresses biomechanical aspects of the most common structural and neurological abnormalities of the spine resulting in pathological gait. It also addresses the mechanics of tissue and joint injury of the head, neck, torso, and extremities. Lectures only.

EXCI 452 Essentials of Strength Training and Conditioning (3 credits)
Prerequisite: EXCI 358. This course utilizes the students' background knowledge of anatomy, physiology, biomechanics, exercise physiology, and exercise programming to design pre-season, in-season, and post-season conditioning programs for elite athletes in a variety of sports. Specific issues include training methods and models, exercise selection and order, load assigments, training volumes, and frequency of participation. Lectures only.
NOTE: Students who have received credit for EXCI 498S may not take this course for credit.

EXCI 455 Physical Activity, Health and Aging (3 credits)
Prerequisite: EXCl 358. This course addresses the health status, physical fitness, exercise patterns, and effectiveness of exercise prescription
for the well elderly and those exhibiting symptoms of chronic diseases which commonly accompany the aging process. Lectures and laboratory.

## EXCI 458 Pediatric Exercise Science

 (3 credits)Prerequisite: EXCI 351, 358. This course introduces students to the anatomical, physiological, and psychosocial issues related to exercise and physical activity in children. Topics include influence on growth and health, injury potential, endurance exercise, weight training, youth in sport, competitive and collaborative play, stress in childhood, and the strategies for improving exercise habits of children. Lectures only.

## EXCI 483 Clinical Exercise Physiology Internship II (3 credits)

Prerequisite: EXCI 358, 383. The course offers a supervised period of work as activity leader/ exercise specialist in a hospital or rehabilitation centre as an assistant in performing physiological evaluations, designing exercise programs, and animating physical activities. The course involves a commitment of 120 hours including a weekly seminar.
NOTE: Students who have received credit for EXCl 463 or for this topic under an EXCl 499 number may not take this course for credit.

EXCI 492 Independent Study in Exercise Science (3 credits)
Prerequisite: Completion of 60 credits in the Exercise Science Major or Specialization Programs and written permission of the Department Chair. This course provides an opportunity to conduct a small-scale scientific research project under the supervision of a faculty member from the Department. In consultation with a faculty member, the student selects a topic, formulates a research methodology, collects data, analyses the results, and writes a formal research report. NOTE: Students who have received credit for EXCI 491 may not take this course for credit.

## EXCI 498 Advanced Topics in Exercise Science (3 credits) <br> EXCI 499 Advanced Topics in Exercise Science (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.110 ÉTUDES FRANÇAISES 

| Faculty | Directrice | CATHERINE MAVRIKAKIS |
| :---: | :---: | :---: |
|  | LUCIE LEQUIN, Professeure titulaire | MARIE-FRANCE WAGNER |
|  | Professeures titulaires et professeurs titulaires JEAN-MARC GOUANVIC GASTON LAURION SHERRY SIMON MAÏR VERTHUY | Professeures adjointes et professeurs adjoints AIME AVOLONTO <br> PAULA BOUFFARD <br> PHILIPPE CAIGNON <br> OLLIVIER DYENS <br> BENOIT LEGER <br> FRANÇOISE NAUDILLON |
|  | Professeures et professeurs agrégés |  |
|  | PAUL BANDIA LOUISE BRUNETTE | Professeures et professeurs associés MARTHE J. CATRY-VERRON |
|  | GILLES CHARPENTIER | PIERRE L'HÉRAULT |
|  | CLAIRE LE BRUN-GOUANVIC | MARIE-FRANÇOISE LIGIER |
| Localisation | Campus Sir George Williams <br> J.W. McConnell, Salle : LB 631-10 <br> (514) 848-7500/7509 |  |
| Objectifs du département | L'appellation Études françaises reflète le concept pluridisciplinaire sur lequel se fondent les deux volets de notre mission universitaire : l'enseignement et la recherche. La recherche pure et appliquée se pratique dans les domaines les plus variés de la discipline en étroite liaison avec l'enseignement. De plus, nous participons à la vie intellectuelle et professionnelle de la collectivité, à l'échelle nationale et internationale. <br> Le Département d'études françaises a une double vocation. Il offre d'une part de solides programmes de langue, littérature, traduction et didactique aux étudiantes et étudiants qui viennent y chercher une formation spécialisée. Il joue d'autre part un rôle capital au sein de l'Université en offrant un vaste éventail de cours de langue, linguistique, littérature et civilisation aux étudiantes et étudiants qui souhaitent compléter la formation qu'elles ou ils reçoivent dans d'autres départements. |  |

## Programmes

Il appartient à chaque étudiante et étudiant de remplir toutes les conditions requises dans son programme. L'exposant 3 ou 6 indique le nombre de crédits.
N.B. : Chaque candidate et candidat aux programmes de traduction devrait inclure à son dossier une lettre d'intention rédigée dans sa langue principale.
N.B. : Avant de s'inscrire, les étudiantes et étudiants devront faire approuver leur programme par un membre désigné du département.

## 60 BA Spécialisation en études françaises

N.B. : Les principaux critères de classement sont la langue d'enseignement des études secondaires, les notes obtenues et les résultats du test d'auto-évaluation du département. Pour obtenir leur diplôme, les étudiantes et étudiants doivent suivre tous les cours du programme dans la voie ( $A$ ou $B$ ) où ils sont inscrits. A. Pour les étudiantes et étudiants ayant effectué leurs études secondaires dans une langue autre que le français :
18 crédits choisis parmi les suivants : FRAN $301^{6}, 302^{3}, 303^{3}, 306^{3}, 334^{3}, 400^{3}$, $401^{3}, 406^{3}, 407^{3}$
15 crédits FLIT $300^{3}, 302^{3}, 303^{3}, 305^{3}, 308^{3}$
27 crédits choisis parmi les autres cours de littérature du département de niveau 300 et 400
B. Pour les étudiantes et étudiants ayant effectué leurs études secondaires en français :
12 crédits choisis parmi les suivants: FRAN $330^{3}, 331^{3}, 333^{3}, 400^{3}, 401^{3}$, $403^{3}, 406^{3}, 407^{3}, 410^{3}, 466^{3}, 468^{3}, 469^{3}$, $470^{3}, 471^{3}$
15 crédits FLIT $300^{3}, 302^{3}, 303^{3}, 305^{3}, 308^{3}$
33 crédits choisis parmi les autres cours de littérature du département de niveau 300 et 400 .

45 BA Majeure en études françaises Option : Langue ou littératures de langue française
N.B. : Les principaux critères de classement sont la langue d'enseignement des études secondaires, les notes obtenues et les résultats du test d'auto-évaluation du département. Pour obtenir leur diplôme, les étudiantes et étudiants
doivent suivre tous les cours du programme dans la voie ( $A$ ou $B$ ) où ils sont inscrits.
A. Pour les étudiantes et étudiants ayant effectué leurs études secondaires dans une langue autre que le français : Tronc commun
18 crédits à choisir parmi les cours FRAN $213^{6}$ (ou $214^{3}$ et $215^{3}$ ), $219^{3}, 221^{3}, 301^{6}$, $302^{3}, 303^{3}, 305^{3}, 306^{3}, 334^{3}, 400^{3}, 401^{3}$, $406^{3}, 407^{3}$
6 crédits à choisir parmi les cours FLIT $220^{3}, 230^{3}, 240^{3}, 250^{3}, 298^{3}$ Volet langue
21 crédits choisis parmi les cours FRAN $318^{3}, 319^{3}, 330^{3}, 331^{3}, 333^{3}, 334^{3}, 400^{3}$ $401^{3}, 403^{3}, 406^{3}, 407^{3}, 408^{3}, 409^{3}, 410^{3}$, $418^{3}, 419^{3}, 466^{3}, 468^{3}, 469^{3}, 470^{3}, 471^{3}$ OU Volet littérature
21 crédits FLIT choisis parmi les autres cours de littérature du département
B. Pour les étudiantes et étudiants ayant
effectué leurs études secondaires en français : Tronc commun
15 crédits à choisir parmi les cours FRAN $306^{3}, 334^{3}, 400^{3}, 401^{3}, 406^{3}, 407^{3}, 410^{3}$
9 crédits à choisir parmi les cours FLIT $300^{3}, 302^{3}, 308^{3}$ ou $303^{3}, 305^{3}, 308^{3}$, $382^{3}$ Volet langue
21 crédits choisis parmi les cours FRAN $330^{3}, 331^{3}, 333^{3}, 334^{3}, 400^{3}, 401^{3}, 403^{3}$, $406^{3}, 407^{3}, 408^{3}, 409^{3}, 410^{3}, 418^{3}, 419^{3}$, $466^{3}, 468^{3}, 469^{3}, 470^{3}, 471^{3}$ ou parmi 6 crédits FLIT OU Volet littérature
21 crédits FLIT choisis parmi les autres cours de littérature du département de niveau 300 et 400

48 BA Majeure en études françaises Option : Traduction $1^{\text {re }}$ étape
6 crédits ENGL $212^{3}$ et $213^{3}$
6 crédits à choisir parmi les cours FRAN $301^{6}, 302^{3}, 303^{3}, 306^{3}, 400^{3}, 401^{3}$ $2^{\circ}$ étape
6 crédits à choisir parmi les cours FLIT $300^{3}$ et $302^{3}$, ou $303^{3}$ et $305^{3}$
6 crédits à choisir parmi les cours FRAN $400^{3}, 401^{3}, 403^{3}, 406^{3}, 407^{3}, 410^{3}$
9 crédits FTRA $200^{3}$, et FTRA $201^{3}$ et $207^{3}$ ou FTRA $202^{3}$ et $208^{3}$ $3^{\circ}$ étape
6 crédits à choisir parmi les cours FTRA $301^{3}$ ou $304^{3}, 305^{3}$ ou $306^{3}, 310^{3}$ $403^{3}$ ou $404^{3}, 405^{3}$ ou $406^{3}, 408^{3}$
3 crédits à choisir parmi les cours FTRA $412^{3}$ et $414^{3}$
6 crédits en littérature d'expression anglaise

45 BA Majeure en études françaises Option : Langue et didactique
N.B. : Cette majeure est destinée à celles et
ceux qui possèdent déjà une bonne maîtrise du français et qui souhaitent renforcer leurs connaissances pour pouvoir accéder à des programmes de premier ou de deuxième cycles exigeant une très bonne compétence linguistique, au plan théorique comme au plan pratique, notamment les programmes spécialisés d'enseignement du français. La majeure débute au niveau 400. Les étudiantes et étudiants qui n'ont pas atteint le niveau nécessaire pourront s'y préparer en suivant, hors majeure, un maximum de quatre cours au niveau 300, choisis parmi FRAN 301, 302, 303, 306, 334.
$1^{\text {re }}$ et $2^{e}$ étapes ( 30 cr .)
12 crédits à choisir parmi les cours FRAN $400^{3}, 401^{3}, 403^{3}, 406^{3}, 407^{3}, 408^{3}, 410^{3}$
12 crédits FLIT au choix en littératures de langue française
6 crédits à choisir parmi les cours FRAN
$330^{3}, 331^{3}, 333^{3}, 334^{3}$
$2^{\circ}$ et $3^{e}$ étapes ( 15 cr .)
6 crédits à choisir parmi les cours FRAN
$466^{3}, 468^{3}, 469^{3}, 470^{3}, 471^{3}$
9 crédits à choisir parmi les cours FRAN $481^{3}, 482^{3}, 485^{3}, 486^{3}$

## 24 Mineure en langue française

24 crédits de langue, choisis dans un ordre accepté par le département, parmi les cours suivants :

- Un maximum de 18 crédits à choisir parmi les cours FRAN $213^{6}, 214^{3}, 215^{3}$, $219^{3}, 221^{3}, 301^{6}, 302^{3}, 303^{3}, 305^{3}, 306^{3}$, $318^{3}, 319^{3}, 334^{3}$; FLIT $230^{3}, 240^{3}$ - Un minimum de six crédits à choisir parmi les cours FRAN $330^{3}, 331^{3}, 400^{3}$, $401^{3}, 406^{3}, 407^{3}, 408^{3}, 409^{3}, 418^{3}, 419^{3}$, $466^{3}, 470^{3}, 471^{3}$


## 24 Mineure en littératures de langue francaise

24 crédits en littératures de langue française choisis en consultation avec le département

## 30 Certificat en langue française

 Ce programme est accessible soit aux vrais débutants soit à des personnes qui ont déjà une certaine connaissance du français. Dans les deux cas, il permettra d'accéder à un niveau relativement avancé de communication et d'expression en français.30 crédits FRAN, choisis à un niveau et dans un ordre acceptés par le département,

- 18 crédits FRAN $211^{6}, 212^{6}, 213^{6}$ (ou $214^{3}$ et $215^{3}$ ), $219^{3}, 221^{3}, 301^{6}$ (ou $302^{3}$ et $303^{3}$ ), $305^{3}, 306^{3}, 334^{\frac{3}{3}}$
- 12 crédits FRAN $301^{6}$ (ou $302^{3}$ et $303^{3}$ ), $306^{3}, 334^{3}, 400^{3}, 401^{3}, 406^{3}, 407^{3}$
N.B. : Ce certificat exige normalement plus d'une année de scolarité.

Programme de traduction (formule standard et coopérative)

66 BA Spécialisation en traduction
N.B. : 1. Le BA Spécialisation en traduction (formule standard et formule coopérative) est un programme contingenté. Comme il demande une excellente connaissance du français et de l'anglais, les étudiantes et étudiants admis devront subir des tests de placement dans les deux langues. Les cours FTRA sont réservés en priorité aux étudiantes et étudiants inscrits dans les programmes de traduction.
2. Le programme de BA Spécialisation en traduction se présente sous deux formules : la formule standard et la formule coopérative. Les conditions d'admission au BA spécialisé en traduction de formule coopérative comprennent, outre celles du programme spécialisé standard, d'autres filtrages du type lettre d'intention, examen écrit, entrevue. La formule coopérative comprend les mêmes cours, en nombre et en nature, que la formule standard; cependant, la séquence des cours varie et trois stages rémunérés de quatre mois chacun, viennent s'ajouter et alternent avec les sessions d'étude (voir calendrier ci-après). Ces stages se déroulent au sein de services linguistiques et sont consacrés à des tâches en traduction ou dans l'un des domaines connexes : rédaction, terminologie, documentation, etc.

| Année | Automne | Hiver | Été |
| :---: | :---: | :---: | :---: |
| 1 | Cours I | Cours II | Cours III |
| 2 | Stage I | Cours IV | Stage II |
| 3 | Cours V | Stage III | Cours VI |

Les étudiantes et étudiants du programme coopératif sont encadrés chacune et chacun personnellement et doivent satisfaire aux exigences de la Faculté des arts et des sciences et de l'Institut d'enseignement coopératif pour se maintenir dans le programme coopératif. La liaison entre l'étudiante ou l'étudiant, les employeurs et l'Institut d'enseignement coopératif est du ressort du comité du programme coopératif en traduction du Département d'études françaises.
Pour plus de renseignements sur l'Institut d'enseignement coopératif, voir la §24 de cet annuaire.
3. Le programme comporte deux options: la traduction du français vers l'anglais ou de l'anglais vers le français. Normalement, l'étudiante ou l'étudiant choisira l'une ou l'autre de ces deux options. Dans de rares cas, certaines candidates et certains candidats pourront satisfaire aux exigences des deux options.
4. Les étudiantes et étudiants du programme de BA Spécialisation en traduction doivent obtenir une note minimale de C dans tous les cours de traduction. Si la note obtenue est inférieure à $C$, les étudiantes et étudiants devront reprendre le cours dans l'année qui suit. Une seule reprise est permise. Si cette exigence n'est pas satisfaite ou en cas d'échec, les étudiantes et étudiants seront radiés du programme. En cas de probation ou de radiation, les étudiantes et étudiants recevront un avis écrit de la direction du département.

## Option A : français-anglais

 $1^{\text {re étape }}$6 crédits à choisir parmi les cours FRAN $400^{3}$ et $401^{3}, 406^{3}$ et $407^{3}$
N.B. : Une étudiante ou un étudiant qui, à l'examen d'admission, n'a pas obtenu une note lui permettant de suivre les cours de niveau 400 peut s'inscrire au( $x$ ) cours FRAN $301^{6}$ ou $302^{3}$ et $303^{3}$ ou $306^{3}$ et suivre les cours ci-dessous en $2^{e}$ année au plus tard.
*6 crédits ENGL $212^{3}$ et $213^{3}$
6 crédits en littératures de langue française
6 crédits en littératures de langue anglaise
9 crédits FTRA $200^{3}, 201^{3}$ et $207^{3}$ $2^{\circ}$ étape
12 crédits FTRA $203^{3}, 301^{3}, 305^{3}$ et $310^{3}$
6 crédits de linguistique choisis en consultation avec la conseillère pédagogique ou le conseiller pédagogique $3^{e}$ étape
3 crédits à choisir parmi les cours FTRA $403^{3}, 405^{3}$, et $408^{3}$
3 crédits à choisir entre les cours FTRA $412^{3}$ et $414^{3}$

6 crédits à choisir entre FTRA $401^{3}$ et $417^{3}$ ou ENGL $396^{6}$
3 crédits FTRA $409^{3}$

## Option F : anglais-français

 $1{ }^{r e}$ étape6 crédits à choisir parmi les cours FRAN $400^{3}$ et $401^{3}$ ou $406^{3}$ et $407^{3}$ ou $403^{3}$, $410^{3}, 466^{3}, 469^{3}, 470^{3}, 471^{3}$
*6 crédits ENGL $212^{3}$ et $213^{3}$ N.B. : Une étudiante ou un étudiant qui n'est pas admissible au cours ENGL $212^{3}$ peut s'inscrire aux cours ESL $209^{3}$ et $210^{3}$ ou ENGL $206^{3}$ et suivre les cours ENGL $212^{3}$ et $213^{3}$ en $2^{e}$ année au plus tard.
12 crédits en littératures de langue française
9 crédits FTRA $200^{3}, 202^{3}$ et $208^{3}$

## $2{ }^{\circ}$ étape

15 crédits FTRA $204^{3}, 304^{3}, 306^{3}, 310^{3}$; FRAN $403^{3}, 410^{3}$
6 crédits en linguistique en consultation avec la conseillère pédagogique ou le conseiller pédagogique $3^{e}$ étape
3 crédits à choisir parmi les cours FTRA $404^{3}, 406^{3}, 408^{3}$

3 crédits FTRA $410^{3}$
3 crédits à choisir entre les cours FTRA
$412^{3}$ et $414^{3}$
3 crédits FTRA $402^{3}$
*L'étudiante ou l'étudiant tenu aux 6 crédits d'ENGL $212^{3}$ et $213^{3}$ peut les comptabiliser dans les 24 crédits à réaliser hors département. Dans ce cas, pour les remplacer il devra effectuer 6 crédits parmi ceux offerts au département.

Les cours du département ayant reçu de nouveaux numéros, les étudiantes et étudiants trouveront une liste d'équivalences à la section 200.1.
Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.
Si une étudiante ou un étudiant s'inscrit à un cours de langue d'un niveau inférieur ou supérieur à ses connaissances, le département se réserve le droit de lui demander de s'inscrire à un cours d'un niveau plus approprié.
In cases where students are enrolled in language classes which do not match their linguistic skills, the Department reserves the right to advise them to transfer into a class at a more appropriate level.

## Langue

## FRAN 211 French Language: Elementary

 (6 credits)This course is restricted to students having no previous training in French. It includes a comprehensive introduction to the basic structures and vocabulary of French and should enable students to acquire an ability to speak and understand simple conversational French. Both oral and written aspects of the language are presented, with special emphasis on oral skills. Laboratory sessions are included.
NOTE: Students who have received credit for FRAN 200 or FRAN 201 may not take this course for credit.

FRAN 212 Langue française : niveau de transition ( 6 crédits)
Préalable : FRAN 211 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants ayant suivi soit un an de français à l'université ou au niveau collégial, soit deux ans de français à l'école secondaire ou l'équivalent. Ce cours permet aux étudiantes et étudiants d'accéder à un niveau de compréhension et d'expression suffisant pour communiquer en français oralement et par écrit avec une certaine assurance. Par l'utilisation de techniques de conversation dirigée, de travail systématique en classe et au laboratoire, et d'exercices écrits, les étudiantes et étudiants acquerront un répertoire de structures et un vocabulaire plus étendu. Séances de laboratoire.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 202 ou FRAN 203 ne peuvent obtenir de crédits pour ce cours.

## FRAN 213 Langue française : niveau

 intermédiaire I et II ( 6 crédits)Préalable : FRAN 212 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants ayant suivi soit quatre ans de français à l'école secondaire, soit deux ans de français à l'université ou au niveau collégial ou l'équivalent. Par une étude et une pratique intensive des tournures du français
courant, l'étudiante ou l'étudiant pourra acquérir l'aisance nécessaire à une communication orale et écrite spontanée. Le cours permettra également à l'étudiant de mieux comprendre des documents audio-visuels (radio, télévision, cinéma, etc.).
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 204 ou 205 ou 214 ou 215 ne peuvent obtenir de crédits pour ce cours.

## FRAN 214 Langue française : niveau

 intermédiaire I (3 crédits)Préalable : FRAN 212 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants ayant suivi soit quatre ans de français à l'école secondaire, soit deux ans de français à l'université ou au niveau collégial ou l'équivalent. Par une étude et une pratique intensive des tournures du français courant, l'étudiante ou l'étudiant pourra acquérir l'aisance nécessaire à une communication orale et écrite spontanée. Le cours permettra également à l'étudiant de mieux comprendre des documents audio-visuels (radio, télévision, cinéma, etc.).
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 204 ou 213 ne peuvent obtenir de crédits pour ce cours.

## FRAN 215 Langue française : niveau

 intermédiaire II (3 crédits)Préalable : FRAN 214 ou l'équivalent. Ce cours est la suite du FRAN 214. Il vise, d'une part, à donner à l'étudiant une plus grande aisance dans son utilisation orale du français de même qu'à l'aider à mieux comprendre des documents audio-visuels (radio, télévision, cinéma, etc.). D'autre part, il approfondit les notions grammaticales et intensifie l'usage du français écrit. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 205 ou 213 ne peuvent obtenir de crédits pour ce cours.

## FRAN 219 Initiation au français écrit

 (3 crédits)Préalable : FRAN 212 ou l'équivalent. Ce cours vise essentiellement l'acquisition des techniques
de base du français écrit. Il comporte un renforcement des connaissances de vocabulaire et de grammaire et une initiation à la composition de textes personnels variés.

## FRAN 221 Correction phonétique

 (3 crédits)Préalable : FRAN 212 ou l'équivalent. Ce cours s'adresse à des étudiantes et des étudiants dont la langue maternelle n'est pas le français et qui souhaitent améliorer leur prononciation. Une approche systématique, qui combine des activités de perception et d'articulation allant des sons isolés à la phrase, leur permettra d'acquérir et de mettre en pratique les règles de la phonétique française (prononciation, liaison, intonation).

## FRAN 298 Étude d'un sujet particulier

 (3 crédits)Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le Undergraduate Class Schedule.

FRAN 301 Langue française : niveaux d'approfondissement I et II ( 6 crédits)
Préalable : FRAN 213 ou 215 ou l'équivalent. Ce cours d'approfondissement est destiné aux étudiantes et étudiants qui possèdent déjà une bonne connaissance du français mais qui ont besoin d'améliorer leur expression écrite et orale. Le cours est essentiellement axé sur la pratique de la lecture, sur la compréhension de textes et de documents audiovisuels, ainsi que sur la pratique de la grammaire et de la rédaction. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 302 ou 303 ne peuvent obtenir de crédits pour ce cours.

## FRAN 302 Langue française : niveau d'approfondissement I (3 crédits)

Préalable : FRAN 213 ou 215 ou l'équivalent. Ce cours de français, niveau d'approfondissement I, est destiné aux étudiantes et étudiants qui possèdent déjà une bonne connaissance du français mais qui ont besoin d'améliorer leur expression orale. Le cours est essentiellement axé sur la pratique de la lecture et sur la compréhension de textes et de documents audiovisuels.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 301 ne peuvent obtenir de crédits pour ce cours.

## FRAN 303 Langue française : niveau d'approfondissement II (3 crédits)

Préalable : FRAN 302 ou l'équivalent. Ce cours de français, niveau d'approfondissement II, est destiné aux étudiantes et étudiants qui possèdent déjà une bonne connaissance du français mais qui ont besoin d'améliorer leur expression écrite. Le cours est essentiellement axé sur la pratique de la grammaire et de la rédaction. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 301 ne peuvent obtenir de crédits pour ce cours.

FRAN 305 Communication orale
(3 crédits)
Préalable : FRAN 213 ou l'équivalent. Ce cours s'adresse à des étudiantes et des étudiants non francophones qui souhaitent améliorer les aptitudes nécessaires à une communication orale efficace en français. Des présentations théoriques et des activités pratiques exploitant des situations de communication variées leur permettront d'acquérir une plus grande aisance et de mieux organiser leur discours. Des activités d'écoute basées sur des documents authentiques leur permettront d'augmenter leur capacité de compréhension en français.

## FRAN 306 Communication écrite

 (3 crédits)Préalable : FRAN 301, 303 ou l'équivalent. Acquisition des techniques nécessaires à la rédaction. Étude des différents styles de langue écrite par opposition à ceux de la langue parlée. Pratique de l'analyse et du commentaire de texte.

## FRAN 318 Le français des affaires I

 (3 crédits)Préalable : FRAN 301, 303 ou l'équivalent. Le cours vise à initier les étudiantes et les étudiants à la communication écrite et orale du français des affaires. L'accent est mis sur l'acquisition des termes et tournures propres à la correspondance commerciale, étayée par une révision du français (grammaire, stylistique et anglicismes). Au moyen de documents authentiques, de modèles de lettres d'affaires, d'exercices d'application et de simulations de situations réelles, les étudiantes et les étudiants développeront les aptitudes nécessaires à une communication efficace dans le domaine des affaires.

## FRAN 319 Le français des affaires II

 (3 crédits)Préalable : FRAN 318. Ce cours permettra aux étudiantes et aux étudiants d'approfondir leurs connaissances dans le domaine du français des affaires. Il traite particulièrement de la rédaction commerciale interne; la révision des structures du français fait également partie des objectifs du cours. Par l'étude du style commercial, du vocabulaire spécialisé et de techniques de rédaction de textes, les étudiantes et les étudiants se perfectionneront dans la communication professionnelle.

## FRAN 330 Introduction à la linguistique française I (3 crédits)

Préalable : FRAN 303 ou l'équivalent. Introduction à l'analyse descriptive de la structure linguistique du français contemporain. Aperçus des aspects phonémiques, morphosyntaxiques et lexicaux de la langue considérée comme un système. Applications théoriques et pratiques. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 266 ne peuvent obtenir de crédits pour ce cours.

## FRAN 331 Introduction à la linguistique

 française II (3 crédits)Préalable : FRAN 330 ou l'équivalent. Suite du cours FRAN 330.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 267 ne peuvent obtenir de crédits pour ce cours.

## FRAN 333 Histoire de la langue française

 (3 crédits)Préalable : FRAN 303 ou l'équivalent. Ce cours est une initiation à l'histoire interne et à l'histoire externe du français. On étudiera, d'une part, les origines de cette langue et ses transformations au cours des siècles, sur les plans phonétique, orthographique, morphologique, syntaxique, lexical et sémantique et, d'autre part, l'évolution de sa situation dans le monde comme langue maternelle, langue seconde, langue de culture. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 269 ne peuvent obtenir de crédits pour ce cours.

## FRAN 334 Le vocabulaire français

(3 crédits)
Préalable : FRAN 303 ou l'équivalent. Ce cours propose une présentation méthodique des divers aspects du vocabulaire français. II comporte quatre parties : introduction générale et présentation des outils bibliographiques; origine et évolution des mots; procédés de création lexicale; variation sémantique. Les travaux prendront la forme d'exercices variés de vocabulaire, d'analyses de textes et de recherches lexicales.
N.B. : Avec le cours FRAN 306, ce cours constituerait une bonne préparation aux cours de langue de niveau 400.

## FRAN 398 Étude d'un sujet particulier

 (3 crédits)Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le Undergraduate Class Schedule.

FRAN 400 Langue française : niveau de perfectionnement I (3 crédits)
Préalable : FRAN 303 ou l'équivalent; FRAN 306 recommandé si le résultat en FRAN 303 est de 2.00 ou moins. Cours avancé de langue, axé sur l'étude de la grammaire et de la stylistique françaises, permettant à une étudiante ou un étudiant qui possède déjà une connaissance approfondie de la langue de corriger ses lacunes, de nuancer son expression et d'explorer les possibilités créatrices du langage.

## FRAN 401 Langue française : niveau de

 perfectionnement II (3 crédits)Préalable : FRAN 400 ou l'équivalent. Cours avancé de langue et de composition, axé sur l'étude de l'utilisation stylistique des temps et d'un certain nombre de techniques, permettant aux étudiantes et aux étudiants d'écrire un texte soigné.
FRAN 403 Rédaction avancée ( 3 crédits) Préalable : FRAN 400 et 401 ou 406 et 407 . Ce cours vise à faire acquérir à l'étudiante ou
l'étudiant qui a déjà une bonne maîtrise de la grammaire l'habileté à rédiger des textes de formes diverses. À partir d'une pratique intense de l'écriture, l'étudiante ou l'étudiant apprendra à rédiger des textes qui répondent à un but spécifique de la communication.

## FRAN 406 Le code grammatical I

 (3 crédits)Préalable : FRAN 303 ou l'équivalent. Étude des règles fondamentales de la grammaire française à l'aide d'exercices d'analyse et de construction de phrases, ayant pour but la correction de l'orthographe et de la syntaxe.

## FRAN 407 Le code grammatical II

 (3 crédits)Préalable : FRAN 406 ou l'équivalent. Ce cours a pour but de fixer définitivement les connaissances grammaticales pratiques des étudiantes et étudiants, en particulier de celles ou ceux qui envisagent de poursuivre leurs études de français à un niveau supérieur. La norme étudiée dans ce cours tiendra compte à la fois des principes de la grammaire traditionnelle et des progrès récents dans l'étude de la langue. L'étude des unités d'expression mènera, par des exercices pratiques d'analyse fonctionnelle, à l'examen approfondi de certains points de stylistique.

FRAN 408 Le code oratoire (3 crédits) Préalable : FRAN 303 ou l'équivalent. Ce cours avancé de langue s'adresse aux étudiantes et étudiants cherchant à acquérir une habileté à parler en public ou à la développer. Il porte à la fois sur la transmission et la création de discours oraux : étude des caractéristiques de la langue " oratoire "; acquisition des techniques et des moyens linguistiques appropriés pour établir une communication structurée et vivante avec un auditoire; introduction à la rhétorique et création de discours argumentatifs. Les séances de travaux pratiques permettent aux étudiantes et étudiants d'approfondir les techniques enseignées pendant le cours.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 404 ou 405 ne peuvent obtenir de crédits pour ce cours.

## FRAN 409 Cours libre de traduction

 (3 crédits)Préalable : Six crédits parmi FRAN 305; FRAN 306; FRAN 400; FRAN 401; ou autorisation du département. Étude systématique des anglicismes; notions de méthodologie de la traduction; étude de quelques aspects de la stylistique comparée du français et de l'anglais; travaux pratiques de traduction de l'anglais au français.
N.B. : Ce cours est destiné particulièrement, mais non exclusivement, aux étudiantes et étudiants qui ne se spécialisent pas en traduction.

## FRAN 410 Rédaction professionnelle

 (3 crédits)Préalable : FRAN 400 et 401 ou FRAN 406 et

407 ou l'équivalent. L'objectif de ce cours est d'enseigner aux étudiantes et étudiants la rédaction de textes techniques, scientifiques, juridiques ou autres et d'analyser les caractéristiques qui leur sont propres en français.

## FRAN 418 Le français de l'économie et du marketing (3 crédits)

Préalable : FRAN 303 ou l'équivalent. L'étudiante et l'étudiant se familiariseront avec des concepts du système économique au moyen d'une communication axée sur des réalités économiques québécoises, canadiennes et mondiales. Étude approfondie du vocabulaire spécialisé, travaux de rédaction et présentation d'exposés à partir d'une analyse d'articles et de films didactiques sélectionnés dans le domaine.

## FRAN 419 Le français de la finance et de la gestion (3 crédits)

Préalable : FRAN 303 ou l'équivalent. Ce cours vise à perfectionner l'usage du français spécialisé écrit et oral utilisé dans les relations d'affaires par un examen des difficultés de la langue française et l'étude de concepts à partir d'une documentation axée sur la science de la gestion et de la finance. Étude approfondie du vocabulaire spécialisé et rédaction de travaux dans le contexte des divers domaines de la gestion administrative, financière et celle des ressources humaines.

FRAN 466 Histoire de la langue française au Québec (3 crédits)
Préalable : FRAN 400 ou l'équivalent. Aperçu de l'évolution du français au Québec, du XVIII siècle à nos jours. Étude de la formation du français québécois et des influences internes et externes qu'il a subies au cours du temps. À l'aide de documents provenant d'époques successives, on s'attachera à définir ce qui caractérise les différents états du français parlé et écrit au Québec, sur les plans phonétique, syntaxique et lexical.

FRAN 468 Étude de la norme (3 crédits) Préalable : FRAN 400. Étude des facteurs politiques, sociologiques et psychologiques contribuant à la notion de norme. Analyse et description des écarts par rapport à la norme. Travaux pratiques d'enquête.

FRAN 469 Sémantique française (3 crédits)
Préalable : FRAN 400. Etude formelle de la signification et de la segmentation du sens en français fondée sur une approche sémiotique de la langue. L'étudiante et l'étudiant feront l'apprentissage de méthodes d'analyse leur permettant d'inventorier les effets de sens et de les ordonner en fonction de critères objectifs.

FRAN 470 Stylistique avancée (3 crédits) Préalable : FRAN 400 ou autorisation du département. Étude de l'articulation entre des procédés d'expression lexicologiques, syntaxiques et rhétoriques, et leurs effets sémantiques. Ce cours
permettra aux étudiantes et aux étudiants d'améliorer leur capacité à rédiger différents types d'écrits structurés et nuancés.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 366 ne peuvent obtenir de crédits pour ce cours.

## FRAN 471 Questions actuelles en linguistique française (3 crédits)

Préalable : FRAN 400 ou autorisation du département. Étude d'une question particulière du domaine de la linguistique, intéressant les étudiantes et les étudiants en langue, littérature, traduction et didactique. Pourront être abordées les méthodologies suivantes: analyse du discours, théorie de l'énonciation, linguistique du texte, pragmatique, linguistique statistique, psycholinguistique, lexicologie.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 367 ne peuvent obtenir de crédits pour ce cours.

## FRAN 481 Évolution de l'enseignement du français : principes et

 méthodes (3 crédits)Préalable : FRAN 400 ou l'équivalent. Panorama historique de l'enseignement du français langue maternelle, langue étrangère et langue seconde. Une attention particulière sera portée à la conception de la langue et de la culture à la base des méthodes et des programmes d'enseignement. Etude de l'état actuel de l'enseignement du français dans le monde.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 381 ne peuvent obtenir de crédits pour ce cours.

## FRAN 482 Le matériel didactique :

analyse et création (3 crédits)
Préalable : FRAN 400 ou l'équivalent. Étude critique du matériel utilisé pour l'enseignement du français dans des cadres et à des niveaux de compétence divers. Analyse comparative du matériel destiné à l'enseignement du français langue maternelle et du français langue seconde ou étrangère. Application de ces connaissances à la création et à l'adaptation de matériel didactique.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 382 ne peuvent obtenir de crédits pour ce cours.

## FRAN 485 Étude d'un sujet particulier en didactique du français (3 crédits)

Préalable : FRAN 400 ou l'équivalent. Étude approfondie d'un aspect particulier de l'enseignement et de l'apprentissage du français. Parmi les sujets possibles : enseignement de la grammaire, de la lecture, du vocabulaire, de la culture; évaluation de l'apprentissage; acquisition du français langue maternelle et langue seconde; enseignement du français et alphabétisation; pédagogie de l'interculturel. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 385 ne peuvent obtenir de crédits pour ce cours.

## FRAN 486 Pratiques d'enseignement

 (3 crédits)Préalable : FRAN 400 ou l'équivalent. Travaux pratiques : préparation de plans de cours, élaboration de leçons-types, initiation aux techniques d'animation de groupe et aux méthodes d'évaluation de l'apprentissage; mise en application dans des classes de français langue seconde. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 488 ne peuvent obtenir de crédits pour ce cours.

FRAN 491 Tutorat en langue, linguistique ou didactique (3 crédits)
Préalable : 12 crédits de langue, de linguistique ou de didactique au niveau « 400 ». Étude d'un sujet particulier dans le domaine de la langue, de la linguistique ou de la didactique.

## FRAN 498 Étude avancée d'un sujet particulier (3 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le Undergraduate Class Schedule.

## Littérature

FLIT 220 Textes littéraires (3 crédits)
Préalable : FRAN 213 ou 215 ou l'équivalent. Au moyen d'un choix de nouvelles, romans, pièces de théâtre et poèmes de la francophonie, l'étudiante ou l'étudiant apprendra à « lire » et à apprécier les caractéristiques des différents genres.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 220 ne peuvent obtenir de crédits pour ce cours.

## FLIT 230 Introduction à la culture francophone (3 crédits)

Préalable : FRAN 213 ou 215 ou l'équivalent. Ce cours vise à familiariser les étudiantes et étudiants non francophones à la culture francophone et à sa diversité. Une étude sociale, historique, linguistique et culturelle permettra aux étudiantes et étudiants de s'interroger sur ce qu'est la francophonie et sur la spécificité francophone.
N.B. : Les étudiantes et étudiants qui ont suivi FLIZ 230 ou FRAN 270 ne peuvent obtenir de crédits pour ce cours.

## FLIT 240 Introduction à la littérature francophone (3 crédits)

Préalable : FRAN 213 ou 215 ou l'équivalent. Ce cours vise à familiariser les étudiantes et étudiants non francophones à la littérature d'expression française. On lira dans ce cours des œuvres représentatives de la diversité du monde francophone.
N.B. : Les étudiantes et étudiants qui ont suivi FLIZ 240 ou FRAN 271 ne peuvent obtenir de crédits pour ce cours.

## FLIT 250 Culture populaire en France et au Québec (3 crédits) <br> Préalable : FRAN 213 ou 215 ou l'équivalent.

Étude comparée de la culture populaire en France et au Québec de 1967 à nos jours : les événements historiques, la littérature, la presse, la mode, la chanson, la télévision, le cinéma, la publicité.

## FLIT 298 Étude d'un sujet particulier

 (3 crédits)Préalable :FRAN 213 ou 215 ou l'équivalent. Les sujets particuliers qui sont étudiés sont indiqués dans le Undergraduate Class Schedule.
N.B. : Les étudiantes et étudiants qui ont suivi un cours FRAN 298 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

## FLIT 300 Littérature et culture françaises du Moyen Âge au XVII siècle

 (3 crédits)Aperçu général de la littérature française du Moyen Âge, de la Renaissance et du XVIIe siècle et du contexte historique, social et culturel qui a donné naissance aux œuvres de l'époque. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 320 ou 321 ne peuvent obtenir de crédits pour ce cours.

## FLIT 302 Littérature et culture françaises du XVIIIe au XX siècles (3 crédits)

Aperçu général de la littérature française des $X V I I I{ }^{e}, \mathrm{XIX}^{e}$ et $\mathrm{XX}^{e}$ siècles et du contexte historique, social et culturel qui a donné naissance aux œuvres de l'époque.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 320 ou 322 ne peuvent obtenir de crédits pour ce cours.

## FLIT 303 Culture et littérature québécoises de 1534 à 1900 (3 crédits)

Panorama de la littérature québécoise, de la Nouvelle-France à la fin du XIX ${ }^{\text {e }}$ siècle, vue dans une perspective socio-historique. Par l'étude de textes significatifs, on retracera le processus historique de différenciation et d'affirmation collective des Québécoises et Québécois. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 251 ou 252 ne peuvent obtenir de crédits pour ce cours.

## FLIT 305 Culture et littérature québécoises : le $X X^{e}$ siècle (3 crédits)

Panorama de la littérature québécoise du $\mathrm{XX}^{e}$ siècle vue dans une perspective socio-historique. Étude des grandes étapes de la production littéraire avec, comme toile de fond, un aperçu général de l'histoire politique, économique, sociale et culturelle du Québec. Etude des principaux courants de pensée.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 251 ou 253 ne peuvent obtenir de crédits pour ce cours.

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FLIT 308 Le quotidien de la
    francophonie (3 crédits)
Étude de la culture de pays francophones (prin-
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cipalement de l'Afrique, des Antilles ou d'autres pays entièrement ou partiellement francophones). Ce cours a pour but, au moyen de documents imprimés et audio-visuels, de faire connaître les conditions socio-politiques de ces pays plutôt que l'histoire des faits exceptionnels.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 364 ne peuvent obtenir de crédits pour ce cours.

## FLIT 310 Le Moyen Âge (3 crédits)

 Introduction à la lecture des premières œuvres de la littérature française : chansons de geste, lais, romans, poésie, théâtre, fabliaux et nouvelles, chroniques et écrits didactiques. Présentation de leur contexte culturel : le monde féodal et la société urbaine, la culture savante et la culture populaire, les milieux intellectuels et artistiques.N.B. : Les étudiantes et étudiants qui ont suivi FRAN 420 ne peuvent obtenir de crédits pour ce cours.

## FLIT 312 <br> La Renaissance française : questions et perspectives

 (3 crédits)Étude des mythes, des valeurs, des symboles qui structurent le monde mental des «acteurs» de la Renaissance française. Les cercles et les foyers de rayonnement intellectuel notables (la Cour, Lyon, les collèges) sont étudiés en détail. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 425 ne peuvent obtenir de crédits pour ce cours.

## FLIT 314 Le XVIf' siècle : l'univers

 théâtral (3 crédits)Étude de la pastorale, de la comédie, de la tragédie et de la tragi-comédie. Importance du théâtre au $\mathrm{XVII}{ }^{e}$ siècle : scénographie, poétique et dramaturgie. Sources et réception des œuvres dramatiques.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 429 ne peuvent obtenir de crédits pour ce cours.

## FLIT 316 La naissance et la diffusion des Lumières en France (3 crédits)

Analyse de l'émergence d'un pouvoir intellectuel de plus en plus autonome en France au XVIII ${ }^{e}$ siècle, par rapport à l'Église, par rapport à l'État. Étude du cadre historique et littéraire dans lequel s'est formée et affirmée la philosophie des Lumières.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 432 ne peuvent obtenir de crédits pour ce cours.

## FLIT 318 Le XIX ${ }^{e}$ siècle : roman et société (3 crédits)

Étude du rôle du progrès (science, socialisme, utopies) dans la constitution du roman du XIX ${ }^{e}$ siècle. Analyse de l'intégration dans la littérature de diverses formes discursives qui permettent
au roman social de refléter les transformations historiques et politiques.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 440 ne peuvent obtenir de crédits pour ce cours.

FLIT $320 \quad$ Le XXe siècle : les métamorphoses du roman (3 crédits)
Étude de l'évolution du roman au $\mathrm{XX}^{e}$ siècle en France et de l'émergence de nouvelles structures romanesques. De la sotie gidienne au Nouveau Roman, le roman n'a cessé de redéfinir son genre, d'emprunter à d'autres discours narratifs et de faire éclater la forme du roman réaliste. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 446 ne peuvent obtenir de crédits pour ce cours.

## FLIT 341 Le roman québécois jusqu'en 1960 (3 crédits)

La pratique romanesque de 1900 à 1960 dans la réalité socio-politique et culturelle. Du roman de la fidélité au roman de l'interrogation, en passant par le roman d'observation, le roman de la critique sociale et le roman de l'exploration intérieure. (Re)lecture des œuvres marquantes dont plusieurs, grâce à la radio, au cinéma et à la télévision, ont joué un rôle important dans la formation de l'imaginaire québécois.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 352 ne peuvent obtenir de crédits pour ce cours.

## FLIT 343 Le roman québécois

 contemporain (3 crédits) La pratique romanesque depuis la Révolution tranquille : évolutions et orientations. On insistera sur les aspects suivants : rupture, modernité et post-modernité; poétique et politique; diversité des pratiques : des recherches formelles aux «belles histoires "; éclatement de l'espace fictionnel, sous la poussée notamment des écritures de femmes et des écritures (im)migrantes. La lecture de textes marquants sera proposée aux étudiants et étudiantes.N.B. : Les étudiantes et étudiants qui ont suivi FRAN 353 ne peuvent obtenir de crédits pour ce cours.

## FLIT 345 Le théâtre québécois jusqu'en

 1960 (3 crédits)Vue d'ensemble du phénomène théâtral, des origines à 1960 : conditions dans lesquelles est né et s'est développé le théâtre : genres affectionnés au $\mathrm{XIX}{ }^{e}$ siècle et au début du $\mathrm{XX}^{e}$ : théâtre historique, mélodrame, burlesque; «les premières modernités » (1930-1965). Une attention particulière sera accordée à cette dernière période dont l'effervescence favorise la naissance du théâtre québécois moderne, signalée par l'apparition de nombreuses fondations institutionnelles et par l'entrée en scène de Gélinas, puis de Dubé, Ferron, Gauvreau, Languirand,

Loranger. Un choix de textes sera proposé à l'étude.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 356 ne peuvent obtenir de crédits pour ce cours.

## FLIT 347 Le théâtre québécois contemporain (3 crédits)

Évolution du théâtre québécois depuis 1960 : théories et pratiques. Identification et étude des principaux axes de son développement : « nouveau " théâtre québécois; création collective et engagement; théâtre expérimental; théâtre de femmes; théâtre des frontières du langage et de l'identité; théâtre et publics, etc. Situation du théâtre dans le réseau des discours esthétiques et socio-culturels. Étude de dramaturges et de pièces marquants. En plus d'avoir recours aux textes, ce cours s'appuiera d'une façon particulière sur la production montréalaise courante. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 357 ne peuvent obtenir de crédits pour ce cours.

FLIT 349 L'essai au Québec (3 crédits) Étude des grands thèmes et de l'évolution des formes de la pensée québécoise à travers l'essai. Analyse des regards pluriels portés sur la culture, la politique. Évaluation de ces composantes mouvantes dans la configuration de la société québécoise actuelle. Lecture d'œuvres représentatives.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 358 ne peuvent obtenir de crédits pour ce cours.

## FLIT 360 Littérature de la francophonie

 au féminin (3 crédits)Introduction à l'écriture des femmes francophones, principalement d'Afrique et des Caraïbes ou d'autres pays entièrement ou partiellement francophones. Analyse du regard particulier qu'elles posent sur elles-mêmes et sur la société. Étude des rapports qu'elles entretiennent avec le français (langue maternelle, langue d'usage, langue imposée...). Évaluation de l'apport spécifique de ces femmes à la littérature de leur pays.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 360 ne peuvent obtenir de crédits pour ce cours.

## FLIT 362 Littérature maghrébine

(3 crédits)
Histoire de la littérature marocaine, algérienne et tunisienne écrite directement en français par des écrivains d'origine arabe ou berbère. Marquée par les influences combinées de la culture française et de l'Islam, cette littérature sera étudiée dans son développement et sa spécificité. Lecture et analyse d'œuvres marquantes datant de l'époque coloniale jusqu'à nos jours.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 256 ne peuvent obtenir de crédits pour ce cours.

FLIT 364

## Littératures africaine et

 antillaise (3 crédits)Histoire et développement de la littérature de langue française des Antilles et d'Afrique subsaharienne au $\mathrm{XX}^{e}$ siècle. Issue de l'époque coloniale, cette littérature sera étudiée en fonction de la grande mutation des années soixante et de la problématique géopolitique des années qui ont suivi les indépendances. Lecture et analyse d'œuvres marquantes provenant de divers pays membres de la francophonie.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 257 ne peuvent obtenir de crédits pour ce cours.

FLIT 370 Les genres narratifs (3 crédits) Étude comparée de plusieurs genres narratifs (réalisme, fantastique, etc.) en vue d'en dégager les traits thématiques et discursifs distinctifs. Les genres étudiés sont replacés dans l'histoire de leur émergence pour être analysés dans leur état contemporain. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 370 ne peuvent obtenir de crédits pour ce cours.

FLIT 372 Le genre poétique (3 crédits) Description de la poésie de langue française dans ses aspects formels et thématiques. Étude de la poétique (vers régulier, vers libre, formes fixes, poèmes en prose, poésie expérimentale). Lecture et analyse de textes choisis en fonction de leur importance historique ou de leur intérêt propre.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 371 ne peuvent obtenir de crédits pour ce cours.

## FLIT 374 Le genre dramatique : analyses et pratiques (3 crédits)

Étude des caractéristiques du théâtre en tant que genre. Analyse de sa fonction littéraire et sociale et de la place qu'il occupe dans l'évolution de la théorie esthétique. On aura recours à un choix de textes dramatiques et théoriques. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 372 ne peuvent obtenir de crédits pour ce cours.

FLIT 380 Texte et image (3 crédits)
Analyse des liens qui unissent le texte et l'image et qui peuvent se manifester sous diverses formes artistiques. On s'attachera à une époque et à une problématique particulières qui permettront de mieux comprendre les rapports du visuel et du littéraire.

## FLIT 382 Le monde du cinéma français (3 crédits)

Ce cours, abondamment illustré de films ou d'extraits de films, étudie à la fois la relation qui s'est établie, depuis plus de cent ans, entre le cinéma français et les cultures de langue française, et l'impact de ce cinéma sur celle-ci. Ce cours analyse aussi les différences, similitudes,
points de tension et de rencontre entre ce cinéma et les autres cinémas nationaux.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 373 ou 374 ne peuvent obtenir de crédits pour ce cours.

## FLIT 398 Étude d'un sujet particulier (3 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le Undergraduate Class Schedule.
N.B. : Les étudiantes et étudiants qui ont suivi un cours FRAN 398 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

## FLIT 410

La naissance du roman au Moyen Âge (3 crédits)
Le roman naissant et la société courtoise (XII ${ }^{e}$ siècle). Sources et thématiques: l'Antiquité, la « matière de Bretagne ", l'Orient. Motifs, personnages et structures narratives, les grands cycles (XIIIe siècle) : Arthur, Tristan, Lancelot, Le Graal.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 421 ne peuvent obtenir de crédits pour ce cours.

FLIT 412 La création littéraire en France au XV' siècle (3 crédits)
La création littéraire (en prose et en poésie) comme cristallisation, polarisation de l'imaginaire de la Renaissance et comme référence à l'humanisme. Étude des œuvres majeures du $\mathrm{XVl}{ }^{e}$ siècle dans leurs rapports au pétrarquisme, au maniérisme, au baroque.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 426 ne peuvent obtenir de crédits pour ce cours.

## FLIT 414 L'écriture moraliste et intime

au XVIf siècle (3 crédits)
Émergence du monde intérieur (moral et spirituel) dans les récits spéculaires des moralistes, mémorialistes et épistoliers. Cosmographie, cartographie, anatomie et écriture moraliste N.B. : Les étudiantes et étudiants qui ont suivi FRAN 431 ne peuvent obtenir de crédits pour ce cours.

## FLIT 416 La création littéraire au XVIIP siècle (3 crédits)

La vitalité du conte, du roman, du théâtre est indéniable au XVIIIe siècle, siècle de tensions, de confrontations, de rêve. Le militantisme des écrivains-philosophes s'accompagne d'une idéologie de bonheur, de la liberté. Analyse des œuvres qui ponctuent l'évolution littéraire et philosophique de ce siècle.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 435 ne peuvent obtenir de crédits pour ce cours.

## FLIT 418 Du Romantisme à l'orée de la

 modernité (3 crédits)À partir du « mal de siècle » français, analyse des transformations successives du rôle des
écrivains (poètes, dramaturges, romanciers, essayistes) dans une société marquée par une industrialisation croissante, de nouvelles découvertes scientifiques et d'importants bouleversements socio-politiques. Le choix de textes permettra d'étudier les différentes voies empruntées par les Romantiques (repli sur soi, engagement social, renouvellement des genres), la participation plus active des femmes à l'institution littéraire, le passage au réalisme et les premières transformations de celui-ci.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 438 et 439 ne peuvent obtenir de crédits pour ce cours.

## FLIT 420 Du réalisme à l'esprit « fin de siècle " (3 crédits)

Étude des multiples tendances qui caractérisent la deuxième partie du dix-neuvième siècle. Cette période est marquée par le passage du réalisme au naturalisme, par l'apogée et la mise en question du roman « bien construit ». Elle verra aussi la naissance de nouveaux genres, tels que le roman policier ou d'anticipation, ainsi que l'éclatement des formes poétiques. Les dernières années seront aussi celles de la décadence et de l'esprit « fin-de-siècle ".
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 441 ne peuvent obtenir de crédits pour ce cours.

## FLIT 422 La poésie et le théâtre des avant-gardes (3 crédits)

Analyse de la notion de rupture avec la littérature contemporaine à l'œuvre dans divers courants poétiques et dramaturgiques tout au long du XX ${ }^{e}$ siècle. À travers les œuvres des dadaïstes, des surréalistes, des lettristes, des oulipiens, des tenants du théâtre existentialiste, absurde ou encore du théâtre de la cruauté, on retrouve ce même souci de rompre avec l'espace littéraire contemporain, de renouveler la poésie et le théâtre par des textes de création, des critiques littéraires ou encore des manifestes.

## FLIT 424 La littérature française actuelle (3 crédits)

Aperçu de la littérature française des trente dernières années, marquée par plusieurs phénomènes, dont la reconfiguration des genres et des structures, la post-modernité, l'écriture au féminin, la revendication de la différence, la réhabilitation du « polar », la remise en question de la théorie et l'émergence d'une multi-culture qui témoigne des phénomènes migratoires inhérents au « village global ».
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 448 ne peuvent obtenir de crédits pour ce cours.

FLIT 441 Imaginaire québécois: mythes et symboles (3 crédits)
Identification, description, évolution des grands symboles et archétypes de l'imaginaire québécois en littérature. On se servira de textes relevant aussi bien de la littérature canonique que
de la littérature dite «populaire» ou appartenant à des genres mineurs.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 450 ne peuvent obtenir de crédits pour ce cours.

## FLIT 443 La poésie québécoise

 (3 crédits)Histoire de la poésie de langue française au Québec, des origines à nos jours. Étude des mouvements et des formes à travers le temps, et lecture des œuvres les plus significatives. On insistera sur l'émergence progressive de la modernité et sur la spécificitié des thèmes du répertoire poétique québécois, au confluent de l'histoire et des bouleversements sociaux. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 354 ou 355 ne peuvent obtenir de crédits pour ce cours.

## FLIT 445 Le fantastique et la littérature populaire (3 crédits)

La présence du fantastique dans la littérature québécoise et l'influence de la tradition populaire au niveau des thèmes et des structures. Textes choisis dans l'ensemble de la production littéraire. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 453 ne peuvent obtenir de crédits pour ce cours.

FLIT 447 Les Voix de Montréal (3 crédits) À travers des textes d'écrivaines et d'écrivains montréalais, on cherchera à rendre compte de la dimension plurielle de l'écriture et de la culture québécoises. On privilégiera les parcours transculturels des auteures et auteurs venus d'un ailleurs géographique et culturel, mais qui inscrivent leurs différences dans le texte québécois par la publication ou la traduction de leurs œuvres en français.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 460 ne peuvent obtenir de crédits pour ce cours.

## FLIT 449 Littérature québécoise -

Canadian Literature (3 crédits)
Étude comparée des littératures québécoise et canadienne-anglaise. Analyse thématique, idéologique et stylistique. Examen des similitudes, des analogies et des traits distinctifs. Textes choisis à la fois parmi les œuvres traditionnelles et les œuvres contemporaines.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 455 ou 456 ne peuvent obtenir de crédits pour ce cours.

FLIT $450 \quad$ Paralittératures ( 3 crédits) Étude de quelques genres romanesques (roman d'aventures, roman d'amour, policier, série noire, espionnage, science-fiction...) maintenus en marge de la littérature dans les cultures francophones contemporaines. Classements des textes dans l'espace social en fonction des discours dont ils sont porteurs. Analyse sociologique des conditions de production, de diffusion et de consom-
mation des textes.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 454 ne peuvent obtenir de crédits pour ce cours.

## FLIT 452 Littérature pour la jeunesse

 (3 crédits)L'évolution de la littérature produite ou adaptée pour la jeunesse, du XVIIe siècle à la fin du XX ${ }^{e}$ siècle. Son état actuel; rapports avec la littérature générale, : aspects éthiques, esthétiques et didactiques. Étude approfondie d'œuvres marquantes de la francophonie, particulièrement au Québec.

## FLIT 460 Littératures européennes d'expression française (3 crédits)

Cours d'introduction, à partir de textes littéraires et autres documents imprimés ou audio-visuels, à la culture de pays européens entièrement ou partiellement de langue française, à l'exception de la France.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 462 ne peuvent obtenir de crédits pour ce cours.

## FLIT 462 Littératures canadiennes-

 françaises (3 crédits)Cours d'introduction, à partir de textes littéraires et autres documents imprimés ou audio-visuels, à la culture des francophones canadiens à l'extérieur du Québec.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 463 ne peuvent obtenir de crédits pour ce cours.

## FLIT 471

La littérature québécoise au féminin (3 crédits)
Étude des principales écrivaines québécoises et de l'évolution de la conscience féminine. Analyse de la représentation qu'elles font d'elles-mêmes et du monde, de leurs modes d'expression et de l'influence du féminisme sur le littéraire.
Textes choisis dans l'ensemble de la production des femmes, avec une attention particulière à l'écriture des jeunes écrivaines.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 451 ne peuvent obtenir de crédits pour ce cours.

## FLIT 472 La littérature française au féminin : perspective historique (3 crédits)

À partir de manifestes et d'œuvres de création, on retracera différentes manifestations de la prise de conscience «féministe» chez les écrivaines françaises, ainsi que les solutions envisagées aux problèmes posés. Ce cours permettra de considérer les tendances actuelles dans une perspective historique.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 476 ne peuvent obtenir de crédits pour ce cours.

## FLIT 474

La littérature française au féminin : nos contemporaines (3 crédits)
Ce cours portera sur l'éclatement qui caractérise l'écriture au féminin à l'heure actuelle. On étudiera différents concepts tels que la « prise de parole », la valorisation de l'anima, le renversement des mythes anciens, ainsi que la révolution formelle et stylistique qui accompagne cet éclatement.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 477 ne peuvent obtenir de crédits pour ce cours.

## FLIT 480 <br> Approches critiques du texte

 (3 crédits)Étude de méthodes diverses choisies parmi les théories formaliste, structuraliste, philosophique, sociologique, sémiotique, psychanalytique, herméneutique, stylistique et philologique. Application des méthodes à plusieurs types de textes. N.B. : Les étudiantes et étudiants qui ont suivi FRAN 479 ne peuvent obtenir de crédits pour ce cours.

FLIT 494 Tutorat en littérature (3 crédits) Préalable : 12 crédits en littérature et autorisation du département. Étude d'un sujet particulier dans le domaine de la littérature.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 494 ne peuvent obtenir de crédits pour ce cours.

FLIT 495 Tutorat en littérature (3 crédits) Préalable : 12 crédits en littérature et autorisation du département. Étude d'un sujet particulier dans le domaine de la littérature.
N.B. : Toute étudiante et tout étudiant s'inscrivant pour la seconde fois au cours FLIT 494 obtient les crédits FLIT 495.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 495 ne peuvent obtenir de crédits pour ce cours.

## FLIT 496 Recherche dirigée ( 6 crédits)

Préalable : 12 crédits dans la spécialité et autorisation du département. Ce cours n'est ouvert qu'aux étudiantes et étudiants des programmes de majeure, de spécialisation ou d'honneurs. Il offre l'occasion d'approfondir l'étude d'un sujet à déterminer par l'étudiante ou l'étudiant en accord avec sa conseillère ou son conseiller et/ou une professeure ou un professeur du département. Chaque étudiante et étudiant exécute des travaux individuels sous le contrôle de la professeure ou du professeur spécialiste de la matière.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 496 ne peuvent obtenir de crédits pour ce cours.

## FLIT 498 Étude d'un sujet particulier

 (3 crédits)Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans
le Undergraduate Class Schedule.
N.B. : Les étudiantes et étudiants qui ont suivi un cours FRAN 498 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

## Traduction

FTRA 200 Méthodologie de la traduction (3 crédits)
Préalable : ENGL 207 et FRAN 306 ou équivalent. Ce cours a pour but d'initier l'étudiante et l'étudiant aux problèmes de la traduction. II sera une introduction générale aux différentes approches du texte à traduire : analyse du discours, grammaire contrastive, stylistique comparée, terminologie et recherche documentaire.
N.B. : Ce cours comporte plusieurs sections, les unes réservées aux étudiantes et étudiants de l'option française, les autres à celles et ceux de l'option anglaise.
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 200 ne peuvent obtenir de crédits pour ce cours.

## FTRA 201 Traduction générale du français à l'anglais I (3 crédits)

Préalable : FTRA 200. Traduction du français à
l'anglais de textes généraux et analyse des problèmes liés au transfert linguistique. (A) N.B. : Les étudiantes et étudiants qui ont suivi TRAD 201 ou 202 ne peuvent obtenir de crédits pour ce cours.

FTRA 202 Traduction générale de l'anglais au français I (3 crédits)
Préalable : FTRA 200. Traduction de l'anglais au français de textes généraux et analyse des problèmes liés au transfert linguistique. (F)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 201 ou 202 ne peuvent obtenir de crédits pour ce cours.

## FTRA 203 L'anglais en contact avec le français au Québec (3 crédits)

Ce cours s'adresse aux étudiantes et étudiants anglophones en traduction, langue, littérature et didactique. II les sensibilisera aux problèmes liés au contact de l'anglais avec le français au Québec et leur permettra de corriger leurs propres erreurs de façon systématique. Le cours est axé sur la langue écrite et on travaillera uniquement sur des textes journalistiques.

FTRA 204 Le français en contact avec l'anglais au Québec (3 crédits)
Ce cours s'adresse aux étudiantes et étudiants francophones en traduction, langue, littérature et didactique. II les sensibilisera aux problèmes liés au contact du français avec l'anglais au Québec et leur permettra de corriger leurs propres erreurs de façon systématique. Le cours est axé sur la langue écrite et on travaillera uniquement sur des textes journalistiques.

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FTRA 207 Traduction générale du français
    à l'anglais II (3 crédits)
Préalable : FTRA 200. Ce cours s'adresse aux
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étudiantes et étudiants anglophones et porte sur la traduction du français à l'anglais de textes généraux, et sur l'analyse des problèmes liés au transfert linguistique. (A)

FTRA 208 Traduction générale de l'anglais au français II (3 crédits)
Préalable : FTRA 200. Ce cours s'adresse aux étudiantes et étudiants francophones et porte sur la traduction de l'anglais au français de textes généraux, et sur l'analyse des problèmes liés au transfert linguistique. (F)

FTRA 298 Étude d'un sujet particulier (3 crédits)
N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 298 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

## FTRA 299 Étude d'un sujet particulier

 (6 crédits)Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le Undergraduate Class Schedule.
N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 299 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

## FTRA 301 Traduction littéraire du français à l'anglais (3 crédits)

Préalable : FTRA 201. Sensibilisation aux problèmes spécifiques à la traduction littéraire. Travaux pratiques : traduction de textes de genres variés. (A)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 301 ou 302 ne peuvent obtenir de crédits pour ce cours.

FTRA 304 Traduction littéraire de l'anglais au français (3 crédits)
Préalable : FTRA 202. Sensibilisation aux problèmes spécifiques à la traduction littéraire. Travaux pratiques : traduction de textes de genres variés. (F)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 303 ou 304 ne peuvent obtenir de crédits pour ce cours.

## FTRA 305 Initiation à la traduction économique du français à l’anglais (3 crédits)

Préalable : FTRA 207. Sensibilisation aux problèmes que pose dans le domaine de l'économie la traduction du français à l'anglais. (A)

FTRA 306 Initiation à la traduction économique de l'anglais au français (3 crédits)
Préalable : FTRA 208. Sensibilisation aux problèmes que pose dans le domaine de l'économie la traduction de l'anglais au français. (F)

FTRA 310 | Initiation à la recherche |
| :--- |
| documentaire et |
| terminologique (3 crédits) |

les outils permettant de repérer les problèmes de terminologie en traduction. Sont traités : les cheminements documentaire et terminologique (terminologie bilingue ou unilingue, langues de spécialités); la création de produits terminographiques (surtout thématiques); lintervention linguistique et ses modalités (perspective sociolinguistique). (F/A)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 310 ne peuvent obtenir de crédits pour ce cours.

FTRA 398 Étude d'un sujet particulier (3 crédits)
N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 398 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

FTRA 399 Étude d'un sujet particulier (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le Undergraduate Class Schedule.
N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 399 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

## FTRA 401 Traduction littéraire avancée : du français à l'anglais (3 crédits)

Préalables : FTRA 301. Etude des différents principes et des différentes techniques de la traduction littéraire; aperçu de la traduction littéraire au Canada. Travaux pratiques : analyse critique et comparaison de traductions et de leur original; traduction de textes français. (A)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 401 ne peuvent obtenir de crédits pour ce cours.

## FTRA 402 Traduction littéraire avancée : de l'anglais au français (3 crédits)

Préalables : FTRA 304. Etude des différents principes et des différentes techniques de la traduction littéraire; aperçu de la traduction littéraire au Canada. Travaux pratiques : analyse critique et comparaison de traductions et de leur original; traduction de textes anglais. (F)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 402 ne peuvent obtenir de crédits pour ce cours.

FTRA 403 Traduction scientifique et technique du français à l'anglais (3 crédits)
Préalable : FTRA 201. Initiation aux différents problèmes de la traduction dans les langues de spécialités scientifiques et techniques (françaisanglais). Le cours est divisé en plusieurs parties, chaque partie correspondant à un domaine spécialisé en traduction. (A)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 403 ne peuvent obtenir de crédits pour ce cours.

## FTRA 404 Traduction scientifique et technique de l'anglais au français (3 crédits)

Préalable : FTRA 202. Initiation aux différents problèmes de la traduction dans les langues de spécialités scientifiques et techniques (anglaisfrançais). Le cours est divisé en plusieurs parties, chaque partie correspondant à un domaine spécialisé en traduction. (F)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 404 ne peuvent obtenir de crédits pour ce cours.

## FTRA 405 Traduction commerciale et juridique du français à l'anglais (3 crédits)

Préalable : FTRA 201. Initiation aux différents problèmes de la traduction dans les langues de spécialités de l'administration, du commerce et du droit (français-anglais). Le cours est divisé en plusieurs parties, chaque partie correspondant à un domaine spécialisé en traduction. (A) N.B. : Les étudiantes et étudiants qui ont suivi TRAD 405 ne peuvent obtenir de crédits pour ce cours.

## FTRA 406 Traduction commerciale et

 juridique de l'anglais au français (3 crédits)Préalable : FTRA 202. Initiation aux différents problèmes de la traduction dans les langues de spécialités de l'administration, du commerce et du droit (anglais-français). Le cours est divisé en plusieurs parties, chaque partie correspondant à un domaine spécialisé. (F)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 406 ne peuvent obtenir de crédits pour ce cours.

## FTRA 408 Adaptation publicitaire

 (3 crédits)Préalable : FTRA 201 ou 202. Initiation à l'adaptation de textes publicitaires. À partir d'exemples empruntés à la publicité écrite, radiophonique ou télévisée, les étudiantes et étudiants seront amenés à se familiariser avec les problèmes linguistiques, affectifs et sociaux soulevés par le travail d'adaptation. (F/A) N.B. : Les étudiantes et étudiants qui ont suivi TRAD 408 ne peuvent obtenir de crédits pour ce cours.

## FTRA 409 Révision et correction en traduction (3 crédits)

Préalables : FTRA 301. Ce cours abordera les différentes méthodes de révision et de correction de textes rédigés ou traduits en anglais; il sensibilisera les étudiantes et étudiants aux aspects humains et techniques du métier de réviseure et réviseur; on touchera aussi aux problèmes de l'évaluation de la qualité des traductions. (A)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 409 ou 410 ne peuvent obtenir de crédits pour ce cours.

## FTRA 410 Révision et correction en traduction (3 crédits)

Préalables : FTRA 304. Ce cours abordera les différentes méthodes de révision et de correction de textes rédigés ou traduits en français; il sensibilisera les étudiantes et étudiants aux aspects humains et techniques du métier de réviseure et réviseur; on touchera aussi aux problèmes de l'évaluation de la qualité des traductions. (F)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 409 ou 410 ne peuvent obtenir de crédits pour ce cours.

## FTRA 412 Théories de la traduction

(3 crédits)
Préalable : FTRA 301 ou 304. Ce cours est une initiation aux différentes théories actuelles de la traduction. Est examiné l'apport de secteurs disciplinaires clés tels que la linguistique, la sémiotique, la sociocritique, dans le développement de la traductologie moderne. (F/A)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 412 ne peuvent obtenir de crédits pour ce cours.

FTRA 414 Histoire de la traduction (3 crédits)
Préalable : FTRA 301 ou 304. Cours d'initiation à l'histoire de la traduction où sont traités les grands courants de la traduction depuis l'Antiquité classique. Sera également abordée la traduction dans certaines sociétés non occidentales. On procèdera par thèmes et par aires géographiques en mettant l'accent sur les époques-clés de grands changements politiques et culturels. (F/A) N.B. : Les étudiantes et étudiants qui ont suivi TRAD 414 ne peuvent obtenir de crédits pour ce cours.

## FTRA 416 Informatique et traduction

(3 crédits)
Préalable : FTRA 201 ou 202, et connaissance du traitement de textes. Ce cours porte sur la langue de l'informatique, la théorie et les concepts fondamentaux qui s'y rapportent. II comporte des exercices de traduction, et une initiation aux outils informatisés pour les traducteurs : Internet, bases de données, systèmes de traduction assistée, utilitaires. (F/A)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 416 ne peuvent obtenir de crédits pour ce cours.

## FTRA 417 Stylistique anglaise pour la

 traduction (3 crédits)Préalable : FTRA 310. Ce cours permettra aux étudiantes et étudiants qui traduisent vers l'anglais de maîtriser les principes stylistiques de cette langue. (A)

FTRA 420 Stage de formation : de l'anglais au français (6 crédits)
Préalable : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante
ou l'étudiant à l'activité professionnelle dans le domaine de la traduction de l'anglais au français et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et tous les candidats.) (F)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 420 ne peuvent obtenir de crédits pour ce cours.

FTRA 421 Stage de formation : du français à l'anglais ( 6 crédits)
Préalable : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction du français à l'anglais et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et tous les candidats.) (A)
N.B. : Les étudiantes et étudiants qui ont suivi TRAD 421 ne peuvent obtenir de crédits pour ce cours.

FTRA 422 Stage de formation : de l'anglais au français I (3 crédits)
Préalable : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction de l'anglais au français et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et candidats.) (F)

## FTRA 423 Stage de formation : du

 français à l'anglais I (3 crédits) Préalable : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction du français à l'anglais et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et candidats.) (A)FTRA 424 Stage de formation : de l'anglais au français II (3 crédits)
Préalable : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction de l'anglais au français et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et candidats.) (F)

FTRA 425 Stage de formation : du français à l'anglais II (3 crédits)
Préalable : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction du français à l'anglais et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et candidats.) (A)

## FTRA 492 Tutorat en traduction

(3 crédits)
Préalable : 12 crédits de traduction au niveau « 400 » et permission du département. Étude d'un sujet particulier dans le domaine de la traduction.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 492 ne peuvent obtenir de crédits pour ce cours.

## FTRA 498 Étude avancée d'un sujet particulier (3 crédits)

N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 498 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

FTRA 499 Étude avancée d'un sujet particulier ( 6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le Undergraduate Class Schedule.
N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 499 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

### 31.130 <br> GEOGRAPHY

Assistant Profossors
JOHN ZACHARIAS, Professor PASCALE BIRON
NORMA RANTISI
Professors
S. ROBERT AIKEN Lecturer

DAVID B. FROST
DAVID F. GREENE
BRIAN SLACK
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JACQUELINE M. ANDERSON
PIERRE GAUTHIER
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CHRISTOPHER BROOKS
CLAUDE COMTOIS
ANDRÉ ROY
MONICA MULRENNAN
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Adjunct Assistant Professor
JUDITH PATTERSON
PATRICIA A. THORNTON
KAREN ST. SEYMOUR

| Location | Sir George Williams Campus J.W. McConnell Building, Room: LB 641 (514) 848-2050 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Department <br> Objectives | Geography focuses on the Earth as the home of humans. Of central concern is the study of the physical and biological processes that operate in the natural world and the human processes that create landscapes and places. Geography explores the complexity of and the relations between cultural and natural systems, examines the ongoing radical transformation of the Earth and space by human action, and focuses on the meaning that people attach to space, place and landscape. In addition to learning a variety of technical skills (for example, cartography, statistical methods, and computer-based geographic information systems), students acquire a better understanding of the world (local, regional and global) and the place of humans in it. |  |  |  |
| Programs | BSc Programs <br> Students are required to complete the appropriate entrance profile for entry into the program (see §31.002 - Programs and Admission Requirements - Profiles). |  |  |  |
|  | Students are responsible for satisfying their particular degree requirements. The superscript indicates credit value. |  |  |  |
|  | 60 | BA Honours in the Human Environment Stage I | 3 | Chosen from GEOG 210 ${ }^{3}$; GEOL $210^{3}$; URBS $230^{3}$ <br> Stage II |
|  | 15 | GEOG $220^{3}, 260^{3}, 272^{3}, 274^{3}, 290^{3}$ | 12 | GEOG $300^{3}, 360^{6}, 363^{3}$ |
|  | 3 | Chosen from GEOG 2103; GEOL 2103; URBS $230^{3}$ | 6 | $\begin{aligned} & \text { Chosen from GEOG } 317^{3}, 318^{3}, 330^{3}, \\ & 355^{3} \end{aligned}$ |
|  | 12 | Stage II GEOG $300^{3}, 360^{6}, 363^{3}$ | 6 | Chosen from GEOG $374^{3}, 375^{3}, 376^{3}$, $377^{3}, 378^{3}$ |
|  | 6 | Chosen from GEOG $317^{3}, 318^{3}, 330^{3}$, |  | Stage III |
|  |  | $\begin{aligned} & 355^{3} \\ & \text { Chosen from GEOG } 374^{3}, 375^{3}, 376^{3} \text {, } \\ & 377^{3}, 378^{3} \\ & \text { Stage III } \end{aligned}$ | 12 6 | Elective credits in Geography at the 400 level <br> Elective credits in Geography at the 300 or 400 level |
|  | 12 | Elective credits in Geography at the 400 level | 42 |  |
|  |  | GEOG $491{ }^{6}$ | 15 | $\begin{aligned} & \text { Stage I } \\ & \text { GEOG } 220^{3}, 260^{3}, 272^{3}, 274^{3}, 290^{3} \end{aligned}$ |
|  | 60 | BA Specialization in the Human Environment |  | Chosen from GEOG $210^{3}$; GEOL $210^{3}$; URBS $230^{3}$ |
|  | 15 | Stage I GEOG $220^{3}, 260^{3}, 272^{3}, 274^{3}, 290^{3}$ | 12 | Stage II GEOG $300^{3}, 360^{6}, 363^{3}$ |

3 Chosen from GEOG $317^{3}, 318^{3}, 330^{3}$, $355^{3}$
3 Chosen from GEOG $374^{3}, 375^{3}, 376^{3}$,
$377^{3}, 378^{3}$
Stage III
6 Elective credits in Geography at the 400 level.

69 BSc Honours in Environmental Science Stage I
9 Chosen from BIOL $225^{3}, 226^{3}$;
EMAT $213^{3}, 233^{3}$
3 COMP $212^{3}$ or $218^{3}$
6 Chosen from GEOG $272^{3}, 274^{3}$; GEOL $210^{3}$
3 GEOG $260^{3}$ or GEOL $216^{3}$
3 CHEM $212^{3}$ or $217^{3}$
Stage II
6 BIOL $322^{3}$; GEOG $363^{3}$
$3 \mathrm{BIOL} 321^{3}$ or GEOL $302^{3}$
9 Chosen from GEOG $374^{3}, 375^{3}, 376^{3}$, $377^{3}, 378^{3}$
6 Chosen from BIOL $350^{3}, 351^{3}, 353^{3}$, $367^{3}, 381^{3}, 385^{3}$; CHEM $271^{3}$; GEOL $331^{3}$; ENGR $251^{3}, 361^{3}$
Stage III
3 GEOG $463^{3}$ or $465^{3}$
12 Chosen from BIOL $451^{3}, 457^{3}, 459^{3}$; CHEM $375^{3}, 470^{3}, 472^{3}$; GEOG $470^{3}$, $474^{3}, 498^{3 *}$; GEOL $415^{3}, 440^{3}$; CIVI $361^{3.5}$, $381^{3.5}, 464^{3}, 467^{3}, 469^{3.5}$
6 Chosen from BIOL 490́; GEOG 491 ${ }^{6}$; GEOL $414^{6}$
*Where the subject matter is of an environmental science nature.

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69 BSc Specialization in Environmental
    Science
    Stage I
9 Chosen from BIOL 2253, 226%;
    EMAT 213 3, 233 
3 COMP 212 or 218 
6 Chosen from GEOG 272 ', 274;
    GEOL 210
    3 GEOG 260 or GEOL 216
3 CHEM 212 or 2173
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Stage II
6 BIOL $322^{3}$; GEOG $363^{3}$
3 BIOL $321^{3}$ or GEOL $302^{3}$
9 Chosen from GEOG $374^{3}, 375^{3}, 376^{3}$, $377^{3}, 378^{3}$
6 Chosen from BIOL $350^{3}, 351^{3}, 353^{3}$, $367^{3}, 381^{3}, 385^{3}$; CHEM $271^{3}$; GEOL $331^{3}$; ENGR $251^{3}, 361^{3}$ Stage III
3 GEOG $463^{3}$ or $465^{3}$
18 Chosen from BIOL $451^{3}, 457^{3}, 459^{3}$; CHEM $375^{3}, 470^{3}, 472^{3}$; GEOG $470^{3}$, $474^{3}, 498^{3 *}$; GEOL $415^{3}, 440^{3}$; CIVI $361^{3.5 *}, 381^{3.5 *}, 464^{3}, 467^{3}, 469^{3.5}$
*Where the subject matter is of a natural science nature.

45 BSc Major in Environmental Geography
Stage I
15 GEOG $220^{3}, 260^{3}, 272^{3}, 274^{3}, 290^{3}$
3 GEOL $210^{3}$
3 Chosen from BIOL $225^{3}, 226^{3}, 227^{3}$; GEOL $213^{3}$; PHYS $273^{3}$ Stages II \& III
12 GEOG $300^{3}, 360^{6}, 363^{3}$
12300 - or 400 -level Geography elective credits chosen with the approval of the Geography adviser. At least three credits must be at the 400 level.

30 Minor in the Human Environment
15 GEOG $220^{3}, 260^{3}, 272^{3}, 274^{3}, 290^{3}$
3 GEOG $300^{3}$
12 GEOG elective credits at the 300 or 400 level
NOTE: This Minor is intended for Arts students.

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24 Minor in Environmental Geography
G GEOG 2723, 2743
3 GEOL 210
9 Chosen from GEOG 3003,363',3743
375',}37\mp@subsup{6}{}{3},37\mp@subsup{7}{}{3},37\mp@subsup{8}{}{3
6 Chosen from GEOG 4063,4583,463
470}\mp@subsup{}{}{3},47\mp@subsup{2}{}{3},474\mp@subsup{4}{}{3
NOTE: This Minor is intended for Science students.
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Students in programs leading to the BSc degree may take the courses in Geography listed below for credits to be applied to their program of concentration.

| GEOG 260 | Mapping and the Environment (3 credits) |
| :--- | :--- |
| GEOG 272 | The Natural Environment: Air and Water ( 3 credits) |
| GEOG 274 | The Natural Environment: Land and Life (3 credits) |
| GEOG 360 | Research Methods ( 6 credits) |
| GEOG 363 | Geographic Information Systems ( 3 credits) |
| GEOG 374 | Plant Ecology (3 credits) |
| GEOG 375 | Hydrology (3 credits) |
| GEOG 376 | Biogeography (3 credits) |
| GEOG 377 | Landform Evolution (3 credits) |
| GEOG 378 | The Climate System (3 credits) |
| GEOG 458 | Environmental Impact Assessment (3 credits) |
| GEOG 463 | Advanced Geographic Information Systems (3 credits) |
| GEOG 465 | Remote Sensing (3 credits) |
| GEOG 466 | Cartographic Visualization (3 credits) |
| GEOG 470 | Environmental Management (3 credits) |

GEOG 472 Environmental Change during the Quaternary (3 credits)
GEOG 473 Environment and Health ( 3 credits)
GEOG 474 Forest Management (3 credits)

Courses
Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

GEOG 200 World Geography (3 credits) This course provides an overview of world geography. It first examines the main environmental and social factors that geographers have employed to divide the world into a series of distinctive regions, and uses examples of specific countries to explore the distinctive geographical processes by which these patterns are transformed and perpetuated.
NOTE: Students who have completed courses numbered GEOG 209 and above may not take GEOG 200-208 for credit.

## GEOG 203 (also listed as SCHA 203) Canadian Environmental Issues (3 credits)

This course explores a number of contemporary and controversial environmental issues in Canada. It provides a general overview of the policy context of environmental decision-making, focusing in particular on the involvement of aboriginal groups in natural resource management and the role of various levels of government, non-government organizations, the news media and the international community in shaping Canadian environmental policies. Issues explored in the course include national parks, animal rights, fisheries management, and northern development and environmental impact assessment. NOTE: Students who have received credit for GEOZ 203, SCHA 203, 254, or for this topic under a GEOG 298 number may not take this course for credit.
NOTE: Students who have completed courses numbered GEOG 209 and above may not take GEOG 200-208 for credit.

## GEOG 204 (also listed as SCHA 204) Global Environmental Issues (3 credits)

This course examines a number of global environmental issues from an interdisciplinary perspective. The complex interactions and interdependencies among the biophysical, socio-economic, political, and cultural aspects of global environmental change are explored in relation to issues such as global warming, desertification, deforestation, declining biodiversity, and acid rain. NOTE: Students who have received credit for GEOZ 204, SCHA 204, 253, or for this topic under a GEOG 298 number may not take this course for credit.
NOTE: Students who have completed courses numbered GEOG 209 and above may not take GEOG 200-208 for credit.

GEOG 206 Maps and Mapping ( 3 credits) This course explores the role of maps in society. Students are introduced to basic mapping
concepts in order to evaluate the meaning and use of various types of maps. Samples of the following types of maps are studied: historic maps, political maps, cognitive maps, maps in newspapers and magazines, computer-generated maps, and maps on television.
NOTE: Students who have completed courses numbered GEOG 209 and above may not take GEOG 200-208 for credit.

## GEOG 209 The Geography of a Selected Region (3 credits)

The course includes both a systematic survey as well as an in-depth focus on particular geographical issues and problems. The specific region to be studied may vary from year to year.

## GEOG 210 Geography of Global Change (3 credits)

This course examines a variety of geographical changes related to globalization. It focuses mainly on the global political system and the global economy, and also considers transport and communications systems, culture, and environmental issues.
NOTE: Students who have received credit for GEOG 201, 300, or GEOZ 210 may not take this course for credit.

## GEOG 220 The Human Environment: Place, Space, and Identity (3 credits)

This course introduces the concepts of "place", "space", and "identity". These concepts were developed by geographers to investigate economic, social, and especially cultural factors which influence the ways we construct and understand our environments. It examines how we construct the meaning of place, the unique identity of places, the contests over identity of place, and claims to rights over place. How these have been affected by migration and globalization are then examined within the context of an already constituted social and geographical unevenness (political, economic, environmental, and cultural).
NOTE: Students who have received credit for GEOG 211 or GEOZ 220 may not take this course for credit.

## GEOG 260 Mapping the Environment (3 credits)

This course introduces students to the basic concepts, theory, and methods of mapping with reference to topographic and thematic maps. Through lectures, laboratories, and practical assignments, students learn about the sources of data for maps, and how these data are manipulated, represented, and interpreted in
both analogue and digital form (Geographic Information Systems).
NOTE: Students who have received credit for GEOG 267 may not take this course for credit.

## GEOG 272 The Natural Environment: Air and Water (3 credits)

This course introduces the Earth's atmosphere and hydrosphere through an examination of their structural components, processes, and variability through space and time. Topics include the global energy system, air temperature cycles, weather systems, urban climate, the water cycle, oceans, lakes, and rivers.
NOTE: Students who have received credit for GEOG 270, 271, or 275 may not take this course for credit.

## GEOG 274 The Natural Environment: Land

 and Life (3 credits)This course introduces the Earth's lithosphere and biosphere through an examination of their structural components, processes, and variability through space and time. Topics include the tectonic system, volcanic activity, landscape and landform development, soils, biogeochemical cycling, succession, and biomes.
NOTE: Students who have received credit for GEOG 270, 271, or 276 may not take this course for credit.

## GEOG 290 The Geographer's World: An Integrated Approach to Land, People, and Society (3 credits)

Prerequisite: GEOG 220, 272; 274 concurrently. This course integrates human and physical geography into a holistic view of human-environment relations. It focuses on a few key environmental issues through case studies operating at a variety of scales (global, national, regional, local), and in different places and time periods. It examines how humans interact with the environment; how they, as members of societies and bearers of culture, perceive, use, transform, and manage the physical environment in different ways and are in turn impacted by changes to that environment. Each case study highlights a specific method and tool of geographic analysis and introduces students to the value of different approaches to environmental issues.
NOTE: Students who have received credit for GEOG 211, 271, 275, or 276 may not take this course for credit.

## GEOG 298 Selected Topics in Geography (3 credits)

GEOG 299 Selected Topics in Geography (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and the Geography Course Guide.

## GEOG 300 Environment: Historical and Cultural Perspectives (3 credits) <br> Prerequisite: GEOG 290 or permission of the

Department. This course explores selected aspects of nature and culture in Western thought. It focuses on four overlapping themes: 1) it presents a broad historical overview of the questions that humans have posed concerning the habitable earth and their relationships to it; 2) it looks in more detail at one of those questions, namely, the extent to which human agency has transformed the earth; 3) it explores the relations between attitudes, values and behaviour, focusing mainly on the idea of wilderness; and 4) it traces the roots and describes the main characteristics of contemporary environmentalism. NOTE: Students who have received credit for GEOG 303, 304, or 305 may not take this course for credit.

## GEOG $317 \quad$ Population Geography

 (3 credits)Prerequisite: GEOG 220 or permission of the Department. This course offers a broad introduction to the characteristics and processes of population change. It focuses on techniques of population analysis and is primarily concerned with issues and problems at the national and global scale. It is framed within the theoretical context of the demographic and mobility transitions. The content reflects the growing focus on policy formation and exposes students to widely available tools (software) for "hands-on" and up-to-date analysis of real demographic situations and scenarios.

## GEOG 318 Vanishing Borders: Regions and the New International Order (3 credits)

Prerequisite: GEOG 220, completion of 30 credits for students enrolled in a Social Science program, or permission of the Department. This course examines the argument that as globalization reduces and removes the effects of international boundaries, regions are becoming more important in the global economy and in the global political system. Emerging new forms of regionalism are discussed, such as transborder regions, regions based on transnational economic integration, and hi-tech regions. The changing nature of more traditional regions, such as metropolitan regions and regions based on sub-state nationalism is also considered.

GEOG 330 Urban Geography (3 credits) Prerequisite: GEOG 220 or permission of the Department. The geographer's view of the city is explored at two scales: cities as elements of an urban system, including topics such as urbanization and the functional structure of cities; and intra-urban patterns, including the spatial arrangement of land-use and social areas. NOTE: Students who have received credit for GEOG 331 may not take this course for credit.

## GEOG 333 Urban Transportation

(3 credits)
Prerequisite: URBS 230 or permission of the Department. This course examines the function of various transport modes in the city. Both
practical and policy issues are covered. Methods of transportation planning are presented through practical assignments based on fieldwork in Montréal. Policy options are considered in light of theoretical and empirical evidence drawn from geographical research.

## GEOG 342 The Making of the Irish Landscape (3 credits)

Prerequisite: Second-year standing or permission of the Department. This course focuses on the evolution of the Irish landscape and examines the physical, political, social, economic and attitudinal processes that have shaped the cultural landscape from prehistoric times to the present.
NOTE: Students who have received credit for this topic under a GEOG 398 number may not take this course for credit.

## GEOG 355 Resource Analysis and Management (3 credits)

Prerequisite: GEOG 290 or permission of the Department. The course is concerned with the use of the Earth's natural resources and with the economic, institutional, and ecological factors that affect, condition, and control the use of these resources. It examines various approaches to analysing, evaluating, and resolving resource issues and conflicts. These approaches are applied to Canadian forestry, fisheries, water, energy, and mineral resources.

GEOG 360 Research Methods ( 6 credits) Prerequisite: GEOG 260, 290; or permission of the Department. This two-semester course focuses on research design, research methods, and quantitative data gathering and analysis. There is an emphasis on field techniques (three weekends in the field). The resulting data sets form the material for the introduction of statistical analyses (t-tests, regression, ANOVA, and non-parametric tests) and the writing of research papers and critical reviews.
NOTE: Students who have received credit for GEOG 361 or 362 may not take this course for credit.

## GEOG 363 Geographic Information Systems (3 credits)

Prerequisite: GEOG 260, 290; or permission of the Department. This course is an introduction to the nature, role, and value of Geographic Information Systems (GIS). Through lectures and practical assignments students examine the data requirements (sources and structure) and hardware and software requirements of GIS as well as ways of using GIS for spatial analysis and modelling. Concepts are applied in the laboratory using IDRISI.
NOTE: Students who have received credit for this topic under a GEOG 398 number may not take this course for credit.

GEOG 374 Plant Ecology (3 credits)
Prerequisite: GEOG 272, 274; or permission of the Department. This course examines plant
community dynamics as a consequence of the population dynamics of the constituent plant species. The role of natural disturbances is stressed, particularly as it relates to forests. Concepts are applied to problems in park management, vegetation mapping, and present controversies about the maintenance of species diversity.

GEOG 375 Hydrology (3 credits)
Prerequisite: GEOG 272, 274; or permission of the Department. The course introduces students to water as an agent of transformation of the landscape. It is based on the use of fundamental concepts from the analysis of systems and from process studies. The course aims at understanding the mechanics of processes governing the motion of water on hillslopes and in rivers.
Theoretical concepts are presented in a lecture format, while the analysis of hydrological data through practical assignment provides an appreciation of the real-world manifestation of these concepts.
NOTE: Students who have received credit for GEOG 475 or 476 may not take this course for credit.

GEOG 376 Biogeography (3 credits) Prerequisite: GEOG 272, 274; or permission of the Department. This course examines the spatial distribution of animals and plants at large scales and over long periods. Topics include vegetation distribution in relation to climate, island biogeography, long-distance dispersal, diversity gradients, mass extinctions, speciation, and taxonomic distribution in relation to plate drifting. This course involves field trips.
NOTE: Students who have received credit for GEOG 371 may not take this course for credit.

GEOG 377 Landform Evolution (3 credits) Prerequisite: GEOG 272, 274; or permission of the Department. This course examines the processes responsible for the development and evolution of the Earth's landforms, including human modifications to those landforms. Topics include the study of fluvial, coastal, glacial, periglacial, and arid landforms. Lectures and laboratory.
NOTE: Students who have received credit for GEOG 372 may not take this course for credit. NOTE: Students are strongly encouraged to take GEOL 210.

GEOG 378 The Climate System (3 credits) Prerequisite: GEOG 272, 274; or permission of the Department. This course compares the climate systems of the tropics and the mid-latitudes; examines the differing climate systems over oceans, deserts, grasslands, forests, and frozen surfaces; and explores the acquisition of climate data from traditional instruments, automated weather stations, and the Internet. It concludes with a brief discussion of climate modelling. Students are responsible for taking
observations at the Department's weather station. NOTE: Students who have received credit for GEOG 373 may not take this course for credit.

## GEOG 398 Selected Topics in Geography

 (3 credits)GEOG 399 Selected Topics in Geography (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and Geography Course Guide.

## GEOG 403 Sustainable Development (3 credits)

Prerequisite: GEOG 300 or permission of the Department. This course deals with selected aspects of the relations between humans and the environment in the contemporary world. It focuses specifically on the concept of sustainable development and deals mainly with problems and issues at the global scale.
NOTE: Students who have received credit for GEOG 405 may not take this course for credit.

## GEOG 406 The Tropical Rain Forest

 (3 credits)Prerequisite: GEOG 300 or permission of the Department. This course focuses on three themes: how tropical forest ecosystems function and change; the causes and consequences of deforestation and forest alteration; and forest values and the need for conservation. NOTE: Students who have received credit for GEOG 306 or for this topic under a GEOG 398 or 498 number may not take this course for credit.

## GEOG 407 Indigenous Resource Management (3 credits)

Prerequisite: GEOG 300 or permission of the Department. This course explores the relationship between indigenous peoples and the environment. It focuses on two primary themes: first, it looks at ways in which ecological knowledge shapes indigenous resource management, land tenure, and sea-rights systems; and second, it examines the roles of indigenous peoples and state authorities in land, sea, and resource management.
NOTE: Students who have received credit for GEOG 304 or for this topic under a GEOG 498 number may not take this course for credit.

## GEOG 417 Population and the Environment (3 credits)

Prerequisite: GEOG 317 or permission of the Department. This course examines the processes by which population and environmental phenomena interact, and looks at the effects of those processes through a series of case studies and thematic issues. It concludes with a discussion of theoretical approaches to the relationship between populations, resources and environment,
as well as theory currently advanced by policy makers to inform response to populationenvironment problems.

## GEOG 430 Cities and Their Governance (3 credits)

Prerequisite: 60 credits or permission of the Department. The course examines government structures and administrative arrangement in large cities and focuses on developments occurring over the last fifty years, with an emphasis on the effects and implications of recent restructuring of local government. Current major challenges for urban local government are considered, relating to the role of local government in economic development and in working towards sustainable cities. The perspective is primarily geographical, but the course is intended to interest students in several social sciences. NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 438 Urban Ecology (3 credits) Prerequisite: GEOG 330 or permission of the Department. The city is viewed as an interdependent and interactive system. The issues surrounding ecological, economic, and sociocultural sustainability are examined in the context of the development of public policy. The integration of a spectrum of ecological approaches and standards is a major theme in individual research projects undertaken in this course.
NOTE: Students who have received credit for URBS 438 or 488 may not take this course for credit.

## GEOG 440 Geography and Public Policy (3 credits)

Prerequisite: 33 credits in Geography or permission of the Department. This course examines the relationship between geographical approaches to problems and issues, and the public policy process. It discusses such topics as the relevance of geographical information and geographical research to policy makers, the need for assessment of the spatial and environmental impact of public policies, and the role of geographers in the public policy process.

## GEOG 458 Environmental Impact <br> Assessment (3 credits)

Prerequisite: GEOG 355 or permission of the Department. This course examines the conceptual bases, procedures, and methodology of Environmental Impact Assessment (EIA). The effectiveness of EIA as a decision-making process in the promotion of good environmental planning is analysed, including its role in assessing the potential effects of certain activities on the natural environment as well as on social, cultural, and economic aspects of the environment.
NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

## GEOG 463 Advanced Geographic Information Systems (3 credits)

 Prerequisite: GEOG 360, 363; or permission of the Department. This course in Geographic Information Systems (GIS) focuses on database structure and management as well as advanced spatial analysis techniques. It considers both practical and theoretical questions of interpretation of GIS in the context of particular problems and real data sets. The course involves hands-on use of both raster- and vector-based software in a laboratory setting.NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 465 Remote Sensing (3 credits) Prerequisite: GEOG 363 or permission of the Department. This course provides basic knowledge about the theory and practice of remote sensing, its potential and limits. The course is divided in five parts: 1) fundamentals of remote sensing, where the physical basis of remote sensing is explained; 2 ) sensors and orbits (different types of sensors, passive, active, and thermal sensors); 3) digital image processing, looking at image enhancement, filtering, classification, and how to obtain thematic data from raw imagery; 4) applications of remote sensing such as forestry, urban studies, water pollution, and agriculture; and 5) problems and challenges associated with remote sensing. Practical examples for all these topics will be covered in the laboratory sessions.
NOTE: Students who have received credit for GEOL 215, 224 or 324 may not take this course for credit.

## GEOG 466 Cartographic Visualization (3 credits)

Prerequisite: GEOG 260, 363; or permission of the Department. This course explores the map as a means of spatial representation from the perspective of visual thinking and visual communication. In an examination of theoretical issues concerning how maps work, an emphasis is placed upon the nature and importance of map symbolization and design. The practical application of these theoretical concepts is provided through the design and production of computer-assisted maps, which constitute an integral part of the course. Lectures and laboratory.
NOTE: Students who have received credit for GEOG 366 may not take this course for credit.

## GEOG 470 Environmental Management

 (3 credits)Prerequisite: GEOG 377 or permission of the Department. This course applies fundamental principles concerning the biophysical environment to the development of strategies and policies for managing the environment. It takes a case-study approach to the management of coastal and fluvial environments. Topics covered include strategies and policies involved in sea defence, beach protection, integrated
coastal zone management, flood alleviation, river stabilization, and river restoration schemes.

GEOG 472 Environmental Change during the Quaternary ( 3 credits)
Prerequisite: Six credits of physical geography at the 300 level or permission of the Department. This course examines environmental change over the last three million years to show how the biophysical environment and the landscape of the Earth have changed during the time that humans have lived on the planet. Theories covered include climate and sea-level changes as well as changes in vegetation associations, sea-ice cover, and numbers of mammals. Particular attention is paid to the degree and frequency of change and techniques of assessing environmental change.
NOTE: Students who have received credit for GEOG 372 or this topic under a GEOG 498 number may not take this course for credit.

## GEOG 473 Environment and Health (3 credits)

Prerequisite: GEOG 317, 378; or permission of the Department. This course combines aspects of applied climatology and medical geography to examine the association of climate and other environmental factors with disease or morbidity. It also highlights techniques and problems of measuring and evaluating areal associations among phenomena.

GEOG 474 Forest Management ( 3 credits)
Prerequisite: GEOG 374 or permission of the Department. This course looks at changes in the exploitation and management of the forest resource in Canada. Topics include the history of cutting strategies and their effect on species composition; the effects of technological changes in harvesting, transportation and milling on forests; and the evolution of modern forest management philosophies and approaches.
NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

## GEOG 490 Internship in Geography

 (3 credits)Prerequisite: Permission of the Department. This course provides final-year students the opportunity to apply their geographical skills and training in a workplace environment. In consultation with the supervisor, students identify a placement related to their interests, develop and carry out a project approved by both employer and academic supervisor, and/or keep a daily log of how the tasks and duties performed relate to and build upon their academic studies. The internship involves 120 hours of unpaid work and contribution to a seminar series.

## GEOG 491 (also listed as URBS 491) Honours Essay (6 credits)

Prerequisite: Permission of the Department. The course requires the student to propose and conduct a research project and to produce
a substantial report under the supervision of a faculty adviser.
GEOG $498 \quad \begin{aligned} & \text { Advanced Topics in } \\ & \text { Geography (3 credits) }\end{aligned}$
GEOG 499 Advanced Topics in Geography ( 6 credits)
Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and Geography Course Guide.
31.130.1
Urban Studies

Program Objectives

Urban Studies is a multidisciplinary program, designed to introduce the student to the processes of planned change in urban environments. Urban Studies provides a core of urban-planning courses involving field studies, planning projects, and the acquisition of technical skills. Complementary courses in Sociology, Political Science, Economics, and Geography provide the necessary approaches and understanding in order to consider complex urban development. The program is designed for students planning to undertake a post-graduate degree in planning or a related field and also provides required training for work in the planning, real estate, and social service fields.

| Programs | Students should consult with the Director prior to registering for Urban Studies courses. Students exempted from any required courses must replace them with others that are relevant to the program and approved by the Director. Similarly, all substitutions must be approved by the Director. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | For the following programs URBS $230^{3}$ and URBS $240^{3}$ may serve as prerequisites for courses in Anthropology and Sociology. |  |  |  |
|  | 66 | BA Honours in Urban Studies Stage 1 | 42 | BA Major in Urban Studies Stage I |
|  | 12 3 | URBS $230^{3}, 240^{3}, 250^{3}, 260^{3}$ GEOG $220^{3}$ | 12 | $\begin{aligned} & \text { URBS } 230^{3}, 240^{3}, 250^{3}, 260^{3} \\ & \text { GEOG } 220^{3} \end{aligned}$ |
|  |  | Stage II |  | Stage II |
|  | 9 | URBS $333^{6}, 370^{3}$ | 9 | URBS $333{ }^{6}, 370^{3}$ |
|  | 6 | GEOG $330^{3}, 333^{3}$ | 3 | ECON $392{ }^{3}$ |
|  | 3 | ECON $392{ }^{3}$ | 3 | Chosen from ANTH $355^{3}$; ARTH $374^{3}$; |
|  | 6 | Chosen from ANTH $355^{3}$; ARTH $374^{3}$; POLI $349^{3}, 352^{3}$; SOCI $315^{6}, 353^{3}$ |  | GEOG $330^{3}$, $333^{3}$; POLI $349^{3}, 352^{3}$; SOCI $353^{3}$ |
|  |  | Stage III |  | Stage III |
|  | 24 | URBS $433{ }^{6}, 438^{3}, 480^{3}, 486^{3}, 487^{3}, 491^{6}$ | 6 | URBS $433{ }^{6}$ |
|  | 3 | GEOG $430^{3}$ or other 400-level course | 3 | 400-level URBS course |
|  | 63 | BA Specialization in Urban Studies Stage 1 | 3 | GEOG $430^{3}$ or other approved 400 -level course |
|  | 12 | URBS $230^{3}, 240^{3}, 250^{3}, 260^{3}$ | 30 | Minor in Urban Studies |
|  | 3 | GEOG $220^{3}$ | 6 | URBS $230^{3}, 240^{3}$ |
|  |  | Stage II | 24 | Chosen from URBS $250^{3}, 260^{3}, 333^{6}$, |
|  | 9 | URBS $333{ }^{6}$, $370^{3}$ |  | $370^{3}, 433^{6}, 438^{3}, 480^{3}, 486^{3}, 487^{3}$; |
|  | 6 | GEOG $330^{3}$, $333^{3}$ |  |  |
|  | 3 | ECON $392{ }^{3}$ |  |  |
|  | 6 | Chosen from ANTH $355^{3}$; ARTH $374^{3}$; POLI $349^{3}, 352^{3}$; SOCI $315^{6}, 353^{3}$ |  |  |
|  |  | Stage III |  |  |
|  | 21 | URBS $433{ }^{6}, 438^{3}, 480^{3}, 483^{3}, 486^{3}, 487^{3}$ |  |  |
|  | 3 | GEOG $430^{3}$ or other 400-level course |  |  |

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

URBS 210 Urban Issues (3 credits)
This course presents contemporary issues regarding the city and includes a behind-thescenes look at how planning and development
are carried out. The principles and practices of community planning are addressed to enable students to develop critical thinking skills about the metropolitan world in which they live.

URBS 230 Urban Development (3 credits) This course examines how and why cities grow and change over time. The relationships between socio-cultural, economic, and physical aspects of urban development are considered at the local, city, and regional scales.
NOTE: Students who have received credit for URBS 280 may not take this course for credit.

URBS 240 Planning ( 3 credits)
This course considers the important role planning will have in shaping the world of tomorrow. The methods of planning used in public, parapublic, and private spheres of activity are introduced.
The process for implementation of plans and the role of the planning professional are given special emphasis.
NOTE: Students who have received credit for URBS 280 may not take this course for credit.

## URBS 250 Representation Methods in Urban Studies (3 credits)

This is an introduction to the analytical and practical skills associated with urban field studies. The emphasis is on the use of graphic media for the representation of the social economic, cultural, and built environments. NOTE: Students who have received credit for URBS 290 or for this topic under a GEOG 299 number may not take this course for credit.

## URBS 260 Analytical Methods in Urban

 Studies (3 credits)This is an introduction to the analytical and practical skills associated with urban field studies. The emphasis is on the use of data sources and collection techniques along with analytical procedures appropriate to questions of urban planning and public policy.
NOTE: Students who have received credit for URBS 290 or for this topic under a GEOG 299 number may not take this course for credit.

URBS 333 Urban Laboratory ( 6 credits) Prerequisite: URBS 250, 260. In this course, an urban problem is studied and solutions simulated. The emphasis is on first-hand knowledge of an area-based problem. Theory and case studies are used to develop appropriate interventions. Plans are prepared and evaluated.
NOTE: Students who have received credit for URBS 334 or for this topic under a GEOG 399 number may not take this course for credit.

URBS $370 \quad$ Urban Systems (3 credits) Prerequisite: URBS 230, 240; or second-year standing in a Geography or Engineering program. The infrastructure of the city is considered from a systems standpoint. The provision of urban services by public and private providers is examined with respect to urban space. Systems encompass institutional, transportation, and underground networks. This course is primarily concerned with the design and management of networks.

## URBS 398 Selected Topics in Urban

 Studies (3 credits)Special topics in urban studies.

URBS 433 Advanced Urban Laboratory (6 credits)
Prerequisite: URBS 333. This is an advanced course in urban design. An overview of current theory and practice is presented. An urban problem is developed and appropriate interventions are considered. These interventions are simulated and the results assessed.

URBS 438 Urban Ecology (3 credits) Prerequisite: GEOG 220, 330; URBS 230; or permission of the Department. The city is viewed as an interdependent and interactive system. The issues surrounding ecological, economic, and socio-cultural sustainability are examined in the context of the development of public policy. The integration of a spectrum of ecological approaches and standards is a major theme in individual research projects undertaken in the context of this course.
NOTE: Students who have received credit for URBS 488 or GEOG 438 may not take this course for credit.

URBS 480 Impact Assessment (3 credits) Prerequisite: URBS 370. The impacts of projects on urban and suburban communities and the environment are studied within the context of environmental protection legislation. The methods of assessment are then applied to specific cases.

## URBS 483 Directed Studies/Practicum in

 Urban Planning I (3 credits) Prerequisite: Completion of 60 credits; enrolment in the Specialization in Urban Studies. Through a case study or practicum of 120 hours with a private or public institution, or community interest group, students acquire experience in a professional working environment.
## URBS 484 Directed Studies/Practicum in

 Urban Planning II (3 credits) Prerequisite: Completion of 60 credits; enrolment in the Specialization in Urban Studies. Through a case study or practicum of 120 hours with a private or public institution, or community interest group, students acquire experience in a professional working environment.
## URBS 486 Behaviour and the Environment (3 credits)

 Prerequisite: GEOG 330; URBS 230. Human behaviour is seen both as a determinant and as an outcome of environment. Behavioural topics include perception and attitudes, spatial behaviour, spatial cognition, and time-path analysis. Student projects involve applying the theory to a location study, a facility management study, or other relevant application.
## URBS 487 The Computer and Urban Planning (3 credits)

Prerequisite: URBS 333. Students solve a micro-scale urban-planning problem while they learn a computer-aided design program. Tutorials in the computer lab are followed by individual project development.

URBS 491 Honours Thesis or Project (6 credits)
Prerequisite: Completion of 60 credits; enrolment in the Honours in Urban Studies. Students may undertake independent, supervised research leading to the production of an Honours thesis. They may also undertake a major urban study leading to recommendations for public or private interventions.
NOTE: Students who have received credit for GEOG 491 may not take this course for credit.

URBS 498 Advanced Topics in Urban Studies (3 credits)
Special topics in urban studies.

| 31.130 .2 | Geology is about the Earth and how natural processes change and shape the environment. It |
| :--- | :--- |
| Geology |  |
| Program Objectives |  |
| acknowledges the influence of industrial and human activity on this planet. |  |

Currently admissions have been suspended into the BSc Major and Minor in Geology, but a variety of courses in Geology are nevertheless offered. Those numbered between 200 and 209 are designed as service courses for non-science students. Those numbered 210 and higher are designed as complementary courses for students in other Science programs.

24 Minor in Geology*
12 GEOL $210^{3}, 211^{3}, 213^{3}, 302^{3}$
12 GEOL elective credits
NOTE: GEOL 2033, $205^{3}, 206^{3}, 208^{3}$ cover topics of general interest in Earth sciences and may be taken by students without a strong background in science.
*Admission suspended for 2003-04.
Students without cégep Geology 901 or equivalent are required to take GEOL $210^{3}$.
Field Trips
Field trips, normally conducted on Fridays or weekends, are mandatory in some Geology courses.

Because of the renumbering of courses in the Department, students should see $\$ 200.1$ for a list of equivalent courses.

## GEOL 203 Introduction to Environmental Geology (3 credits)

Prerequisite: None; GEOL 210 recommended. Geology in the ecosystem. The Earth's atmosphere, hydrosphere, lithosphere, and biosphere in geologic time. Long-range geological effects of ecosphere pollution. Trace nutrients and health, with emphasis on the geology of trace-elements and their cause and effect on biological systems. Understanding of, control for, and prevention of natural hazards. Changes in the Earth's climate. Role of geology in land use. Lectures only. NOTE: Students in degree programs in Geology may not take this course for Geology credits.

## GEOL 205 Non-Renewable Resources

 (3 credits)Prerequisite: None; GEOL 210 recommended. Rocks and ore minerals. Present and future availability of Earth resources. The nature, classification, and mode of occurrence of mineral deposits. Exploration, development, and rational exploitation of mineral resources. Elements of mining economics. Distribution of oil, gas, coal,
and base-metal deposits. Evaluation of the effects of mining operations on the environment. Lectures only.
NOTE: Students in degree programs in Geology may not take this course for Geology credits.

## GEOL 206 Earthquakes, Drifting

 Continents and Volcanoes (3 credits)The aim of the course is to provide an up-to-date account of our present knowledge of earthquakes and volcanoes and their global connections which are of general interest for students with little or no previous background in Earth sciences. Areas of concentration are: nature, distribution, and causes of earthquakes and volcanic eruptions, earthquake waves and their effects, measuring earthquakes, great earthquakes and volcanic eruptions in world history, products of volcanic eruptions, four billion years of volcanism on the Earth and elsewhere in the solar system. Prediction of earthquakes and volcanic eruptions and global connections between earthquakes, drifting
continents, and volcanoes. Lectures only.
NOTE: Students in degree programs in Geology may not take this course for Geology credits.

## GEOL 208 The Earth, Moon and the Planets (3 credits)

The course emphasizes the cosmic perspective of the Earth and focuses attention on how the results of the last two decades of planetary exploration have brought about an intellectual revolution concerning the planets, especially their surface features, processes, and histories. Lectures only.
NOTE: Students in degree programs in Geology may not take this course for Geology credits.

## GEOL 210 Introduction to the Earth

 (3 credits)This course provides an overview of the physical processes that govern how the Earth works Topics include origin of the solar system and Earth; analysis of the internal structure of the Earth; minerals and rocks; igneous and metamorphic processes; deformation of the crust; surficial processes, including weathering, deposition and glaciation. The course culminates with the integration of these geological processes in the theory of plate tectonics, and goes on to examine the interactions of crust, mantle, atmosphere, and biosphere from this perspective. Laboratory work includes the identification of rocks and minerals, map exercises, and a field trip. Lectures and laboratory.

GEOL 211 Mineralogy I (3 credits) Physical and chemical properties of minerals. Crystallography, crystal notation, stereographic projection. Crystal structures. Identification, description, and classification of minerals. One or two field trips near Montréal. Lectures and laboratory.

GEOL 213 Structural Geology (3 credits)
Prerequisite: GEOL 210. The course is an introduction to primary and deformational structures in rocks. Emphasis is placed on recognition, classification and nomenclature of structures on maps and in the field. Laboratory exercises emphasize map reading and interpretation, structural analysis, descriptive geometry, and stereographic projections. Lectures and laboratory.

GEOL 216 Field Methods (3 credits) Prerequisite: GEOL 210. The purpose of this course is twofold: to learn the basic methods that geologists, physical geographers, and environmental scientists use in the field (including learning how to map, measuring stratigraphic sections, and solving field problems based on observations) and to become familiar with the immediate geological environment of the Montréal region from the young Quaternary sediments, Mesozoic intrusive rocks and Paleozoic assemblages (including rocks of the St. Lawrence Lowlands) to the ancient Precambrian, crystal-
line basement. Two-week field school in the spring, immediately after the final examination.

GEOL 231 Physics of the Earth (3 credits) Prerequisite: Cégep Mathematics 103 or 201-NYA or MATH 203; cégep Mathematics 203 or 201-NYB or MATH 205; cégep Physics 301 or 203-NYC or PHYS 206 and 226; GEOL 210 or equivalent. This course is directed towards the general understanding of physical phenomena of the solid Earth. Subjects for consideration include the following: Earth's origin, age, radioactivity, magnetism, gravity field, seismology, heat flow, structure and physical state of the Earth's interior. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 221 may not take this course for credit.

GEOL 232 Introduction to Geochemistry (3 credits)
Prerequisite: Cégep Chemistry 201 or 202-NYB or CHEM 206; cégep Physics 301 or 203-NYC or PHYS 206 and 226; cégep Mathematics 103 or 201-NYA or MATH 203; cégep Mathematics 203 or 201-NYB or MATH 205; GEOL 210. The course focuses on the application of concepts of elementary chemistry to geological problems. Subjects for consideration include: application of thermodynamics to geological problems, phase equilibria relationships in petrogenesis, partitioning of elements, crystal chemistry, distribution of elements, chemistry of natural waters including properties of water at high temperatures and pressures. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 223 may not take this course for credit.

## GEOL 233 Introductory Hydrogeology (3 credits)

Prerequisite: GEOL 210; CHEM 206; MATH 205. This course is an introduction to the physical and geochemical aspects of hydrogeology, with emphasis on groundwater in its physical and geochemical aspects, influence on geotechnical engineering, and contamination. Lectures and laboratory.
NOTE: Students who have received credit for this topic under a GEOL 298 or 398 number may not take this course for credit.

## GEOL 298 Selected Topics in Geology

 (3 credits)
## GEOL 299

Selected Topics in Geology ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

GEOL 302 Palaeobiology (3 credits) Prerequisite: GEOL 210. General discussion covers taphonomy, processes and patterns of evolution, extinction, ontogeny, palaeoecology and taxonomy. Systematics, morphology,
biostratigraphic value of selected macroinvertebrate fossils will be included in the latter half of the course. Lectures and laboratory. NOTE: Students who have received credit for GEOL 212 may not take this course for credit.

## GEOL 311 Introductory Petrology

 ( 6 credits)Prerequisite: GEOL 211. The identification and description of hand specimens of igneous, sedimentary, and metamorphic rocks. Rock associations. Classification and origin of major rock groups. Lectures and laboratory.

## GEOL 313 Optical Crystallography (3 credits)

Prerequisite: GEOL 211. Behaviour of light in crystals. The optical indicatrix. The polarizing microscope and optical properties of minerals. Identification of non-opaque minerals in oil immersion and thin sections. If time permits, use of the Universal Stage will be introduced. Lectures and laboratory.

GEOL 314 Stratigraphy (3 credits) Prerequisite: GEOL 302; GEOL 311 previously or concurrently. Introduction to historical developments of stratigraphic concepts. Role of natural dynamic processes in the evolution of stratigraphic record. Discussion on stratigraphic classification and nomenclature. Major classification of tectonic elements in sedimentary basins, and broad patterns in the distribution of sedimentary rocks in relation to tectonic framework. Detailed analysis of stratigraphic principles, such as correlation (lithostratigraphic, biostratigraphic, chronostratigraphic), facies (lithofacies, biofacies), unconformities, and cyclothem. Critical evaluation of stratigraphic sequences using modern and ancient examples for the recognition of aeolian, alluvial fan, fluvial, lacustrine tidal flats, barrier coastlines, carbonate shoreline, shallow marine and submarine environments. Lectures and laboratory.

GEOL 316 Field Geology (3 credits) Prerequisite: GEOL 216; GEOL 311 or permission of the Department. Two-week fieldwork right after the final examination period. Working in groups, students map an area, prepare sections, and submit a geological map and/or written report. Group studies of important outcrops or outcrop areas and quarries. Transportation is provided by the Department but students must pay for board and lodging. NOTE: Students taking this course in their final year may not be able to graduate in the spring of the same year.

GEOL 318 Structural Geology II (3 credits) Prerequisite: GEOL 213. Concepts of strain and mechanics of deformation. Description of tectonic fabrics and analysis of folds; identification and interpretation of polyphase deformation. Regional structural associations and their evaluation. Laboratory includes field-oriented structural problems, drill holes, and regional structural
analysis. Use of aerial photographs in the preparation of geological maps and sections. Several field trips and structural mapping of selected outcrops or outcrop areas. Lectures and laboratory.

## GEOL 325 Geostatistics and Computer Applications in Geology (3 credits)

Prerequisite: GEOL 210; INTE 290 or COMP 201 or permission of the Department. This is an introductory course in the application of statistical methods to geological problems. Topics covered include sampling from geological populations, binomial, Poisson, normal and lognormal distribution; sampling distribution and applications; analysis of variance: simple linear regression, introduction to multivariate data analysis techniques; multiple regression, factor analysis, cluster analysis, and discriminant analysis. Lectures and laboratory.

## NOTE See §200.7

GEOL 331 Historical Geology (3 credits)
Prerequisite: GEOL 210 or permission of the Department. Fundamental concepts in historica geology; principles of stratigraphy, paleo-geography, and geochronology. A systematic review of the geological history of the Earth and development of life forms from the Precambrian to Recent. Geological evolution of classical areas with special attention to the North American continent. Studies of stratigraphic sections and geological maps. Lectures and laboratory. NOTE: Students who have received credit for GEOL 310 may not take this course for credit.

GEOL 332 Economic Geology (3 credits) Prerequisite: GEOL 311 previously or concurrently. The course deals with the genetic concepts leading to the formation of metallic and non-metallic mineral deposits, their classification, world distribution, and economic evaluation. Concepts related to zonation, metallogenic provinces, metallotects, and exploration and evaluation of mineral deposits are also dealt with. Laboratory includes examination and study of selected ore-suites from the most important mining camps, ore reserve calculations, core logging and economic feasibility studies of clas sical mineral deposits. Lectures and laboratory. NOTE: Students who have received credit for GEOL 317 may not take this course for credit.

GEOL 398 Selected Topics in Geology (3 credits)

GEOL 399 Selected Topics in Geology ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## GEOL 411 Igneous and Metamorphic Petrology ( 6 credits) <br> Prerequisite: GEOL 311; GEOL 313. Interpreta-

tion of phase diagrams. Mineralogy, fabric, and petrogenesis of igneous and metamorphic rocks. Magmatic and metamorphic processes. ACF and AKF diagrams for various metamorphic facies. Study of selected problems. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 390 may claim only three credits for this course.

## GEOL 413 Sedimentary Petrology

 (3 credits)Prerequisite: GEOL 311; GEOL 313. General principles of sediment diagenesis, followed by detailed analysis of the diagenetic evolution of sandstone, shale, and carbonate rocks. Emphasis is placed heavily on the microscopic criteria in the recognition of diagenetic fabric. Problems of primary sedimentary structures and their hydrodynamic interpretation are also discussed Specialized topics on current development in sedimentary lithogenesis are also included. Lectures and laboratory.

## GEOL 414 Undergraduate Research

 (6 credits)Prerequisite: For third-year Honours students. Honours students in their final year are expected to show competence in isolating and examining a geological problem under the supervision of a faculty adviser. A written application to take the course, including a brief outline of the research project, must be made to the Department before April 15 of the second year. The application is reviewed by a committee and a decision forwarded by mail. The results of research must be presented in the form of an undergraduate thesis, two copies of which must be submitted by April 1. NOTE: Written requests from Specialization students, with appropriate academic records, to take the course will be considered.

GEOL 415 Plate Tectonics and Crustal Evolution (3 credits)
Prerequisite: GEOL 210; GEOL 331 or GEOG 377; or permission of the Department. Techniques of data collection in tectonics. Structure and rheology of the upper mantle. Tectonics of crustal types to include shields, platforms, passive continental margins, phanerozoic foldbelts, continental rifts, island-arc trench belts and oceanic rises, sea-floor spreading, plate tectonics, magma associations, and plate reconstructions. Crustal origin and growth. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 315 may not take this course for credit.

GEOL 417 Mineral Deposits (3 credits) Prerequisite: GEOL 332; GEOL 411 previously or concurrently. The course deals with the study of ore deposits generated by magmatic segregation,
contact metasomatic, hydrothermal, volcanogenic, sedimentary and supergene enrichment processes. Concepts of geothermometry, geobarometry, and stable isotopes are also dealt with. Examples of particular geological interest from the most representative mining districts of the world. Laboratory includes petrological examination of metallic suites, fluid inclusion, and Vickers microhardness tests. Lectures and laboratory. NOTE: Students who have received credit for GEOL 416 may not take this course for credit.

## GEOL 422 Exploration Geophysics

 (3 credits)Prerequisite: GEOL 231 or permission of the Department. A brief study of the principles of magnetic, gravimetric, electric, and seismic methods of mineral exploration; interpretation of geophysical data; organization of exploration programs; selected case histories. Lectures and laboratory.

GEOL 424 Engineering Geology (3 credits)
Prerequisite: GEOL 210 or equivalent; GEOL 213 and GEOG 465 recommended. Engineering properties of rocks and soils. Landslides, groundwater, frost action, and permanently frozen ground. Application of geology to engineering problems-concrete petrology, tunnels, slope control, foundations, roads, airports, dams, and reservoirs. One term paper to be prepared. The laboratory period includes field trips, engineering geology case histories, and feasibility study of engineering geology problems. Lectures and laboratory.

## GEOL 440 Seminar in Current Research on Environmental Earth Science (3 credits)

Prerequisite: GEOL 331 or GEOG 377, or advanced standing in an engineering program, or permission of the Department. This course covers current research in environmental Earth science; topics vary from year to year, but will generally include: mantle-biosphere-atmosphere interactions, the carbon and methane cycles, and the geological climate record. Evaluation is based on seminar participation and written work. NOTE: Students who have received credit for this topic under a GEOG or GEOL 498 number may not take this course for credit.

GEOL 498 Advanced Topics in Geology (3 credits)

GEOL 499 Advanced Topics in Geology (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.170 INTERDISCIPLINARY STUDIES 

Administrator
JOANNE LOCKE

| Program <br> Objectives | The Faculty of Arts and Science Principles of Education (§31.001) reinforce the value of broadening <br> skills and experience beyond the boundaries of a single concentration. Interdisciplinary studies involves <br> students in a range of thought, from scientific to humanistic. Courses are designed to illuminate <br> principles, methods, and skills that cross disciplinary boundaries. These programs are intended for <br> students whose interests do not conform to standard academic programs. |
| :--- | :--- |
| Program | INDIVIDUALLY STRUCTURED PROGRAMS - HONOURS OR SPECIALIZATION <br> Under the direction of the Academic Adviser, Faculty of Arts and Science |
|  | Opportunities are available in some departments and programs to follow an Individually Structured <br> Specialization or Honours program. Students must apply to the Department that seems most relevant <br> to the central aspect of their proposed program. Students in general must have demonstrated in their <br> previous academic endeavours that they are capable of good standing ("B" level), but in exceptional <br> cases a student may be admitted provisionally on the recommendation of the departmental under- <br> graduate coordinator. <br> Formal entry to the ISP may occur only after completion of preparatory courses such as are required <br> in Mature Entry and Extended Credit programs. Students wishing to follow an Honours program must <br> follow the Faculty procedures and regulations concerning admission to Honours programs. (See <br> Degree Requirements - Honours, §16.2.3 and 31.003.) |
| Students interested in pursuing an Individually Structured Program should contact the Academic <br> Adviser, Faculty of Arts and Science, at (514) 848-2104. |  |

Academic
Regulations

The program will consist of not less than 60 credits. The courses chosen must be based on a departmental or program core, usually the Major, but not less than 24 credits. Students will thus be required to complete necessary prerequisites, and general preparation courses such as Research Methods or Statistics, so that they may later follow a regular departmental program if they so desire.
A Specialization student must maintain an average of " $\mathrm{C}_{+}$" in all Specialization courses for purposes of continuation in the program from year to year, as well as for graduation. The minimum acceptable grade in any single Specialization course is " C -".
The program of study must be worked out at the time of registration into the program. Admission to the program must be finalized before a student registers for the final 60 credits of the 90 -credit portion of their degree. To allow for the non-availability of certain courses during certain sessions, allowable substitute courses must be listed in advance. Such substitution provisions will be necessary only in the case of specialized courses that are known not to be available on a session by session basis. The intention of this regulation is to assure that the program does not become an ad hoc mixture of courses without clearly rationalized academic coherence.
Students must prepare a careful, not necessarily long, statement of their goals indicating the specific reasons for their program choice. The rationale and the sequence of courses chosen must be approved by the two departmental program coordinators and the Vice-Dean, Student Affairs.
Interdisciplinary

Majors, Minors, and
Certificates

|  |  |
| :--- | :--- |
| Programs | INTERDISCIPLINARY PROGRAMS - MAJORS, MINORS, AND CERTIFICATES |
|  | An Interdisciplinary Major is a program consisting of 42 or more credits comprised of courses from a |
| range of disciplines. Interdisciplinary Minor programs usually consist of 24 or more credits and are to |  |
| be combined with a department Major, Specialization, or Honours. Interdisciplinary Certificate programs |  |
|  | normally consist of 30 credits and can be taken as independent programs. Interdisciplinary Major, Minor, |
| and Certificate programs are listed below. |  |

NTERDISCIPLINARY PROGRAMS - MAJORS, MINORS, AND CERTIFICATES
An be combined with a department Major, Specialization, or Honours. Interdisciplinary Certificate programs and Certificate programs are listed below.

## Credits

24
30
Minor in Interdisciplinary Studios in Sexuality
24 Minor in Lonergan Interdisciplinary Studies
42 Major in Southern Asia Studies
31.170
30 Minor in Southern Asia Studies
31.170

## CANADIAN IRISH STUDIES

The Centre for Canadian Irish Studies offers a 24 -credit Minor and a 30 -credit Certificate in Canadian Irish Studies. The purpose of the programs is to allow students to study the history and culture of Ireland and the lrish in Canada and Québec, and to increase awareness of the significant contribution the lrish have made to the development of both Québec and Canada. The Minor is intended for current students and must be combined with a Major, Specialization, or Honours program from another department. The Certificate is directed to members of the larger community and may be taken as an independent program. Students interested in this program should contact the Centre for Canadian Irish Studies at (514) 848-8711.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

## 24 Minor in Canadian Irish Studies

12 ENGL $355^{3}, 359 D^{3}$; GEOG $342^{3}$; HIST $211^{3}$
12 Chosen from ECON 379; ENGL 359C³, $359 E^{3}$; GEOG $398 D^{3}, 398 N^{3}$; HIST $2981^{3}$, $398 \mathrm{~A}^{3}, 412 \mathrm{~F}^{3}$; INTE/ARTH 398J ${ }^{3}$; MODL 3998 ${ }^{6}$; THEO 208 ${ }^{3}$; WSDB $398 Z^{3}$; or other courses chosen in consultation with an adviser from the Centre for Canadian Irish Studies

30 Certificate in Canadian Irish Studies
15 ENGL $355^{3}, 359 D^{3}$; GEOG $342^{3}$; HIST $211^{3}, 398 A^{3}$
15 Chosen from ECON 379; ENGL 359C³, $359 E^{3}$; GEOG $398 \mathrm{D}^{3}, 398 \mathrm{~N}^{3}$; HIST $298 \mathrm{l}^{3}$ $412 \mathrm{~F}^{3}$; INTE/ARTH 398J ${ }^{3}$; MODL $399 \mathrm{~B}^{6}$; THEO 2083; WSDB $398 Z^{3}$; or other courses chosen in consultation with an adviser from the Centre for Canadian Irish Studies

NOTE: For details on the course descriptions in the programs listed above, please refer to the individual departmental course listings.

## INTERDISCIPLINARY STUDIES IN SEXUALITY

The Minor in Interdisciplinary Studies in Sexuality, offered jointly by the Faculty of Fine Arts and the Faculty of Arts and Science, draws its curriculum from a variety of disciplines. Its purpose is to investigate empirical, theoretical, and creative aspects of sexuality.
Students interested in this program should contact Dr. Lillian S. Robinson, Principal, Simone de Beauvoir Institute, Faculty of Arts and Science, (514) 848-2372.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

## 27 Minor in Interdisciplinary Studies in

 Sexuality12 Chosen from INTE 391/FASS 391³, INTE 392/FASS 392; SOCI 375/ ANTH $375^{3 *}$; FMST $392^{3}$; INTE 390/ FFAR $390^{6}$.
9 Elective credits on sexuality and sexual orientation chosen in consultation with the program coordinator from periodic topics courses and other suitable courses identified in a given year, and from the following regular courses:

AHSC $253^{3}$; ENGL $445^{3}$; FMST $391^{3}$; RELI $380^{3}$; WSDB $383^{3}$.
6 Chosen each year from courses in gender and women's studies in consultation with the program coordinator from a list of available offerings within departments of the Faculties of Arts and Science and Fine Arts.
*Prerequisites waived for students having completed six credits in the Minor in Interdisciplinary Studies in Sexuality.

NOTE: For details on the course descriptions in the program listed above, please refer to the individual departmental course listings, and the INTE courses listed below.

## SOUTHERN ASIA STUDIES

The Major and Minor programs in Southern Asia Studies give students an opportunity to learn about the customs, social organization, ideas, historical experiences, and present-day conditions of India, Pakistan, Bangladesh, and their neighbours. Students pursuing a Major or Minor in Southern Asia Studies take courses in Religion, History, Political Science, and other departments in order to gain an understanding of this region and its people.
Students interested in these programs should contact either of the following: Dr. Leslie Orr, Department of Religion, (514) 848-2065, Dr. John Hill, Department of History, (514) 848-2435, or Dr. Lynda Clarke, Department of Religion, (514) 848-2073.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

42 BA Major in Southern Asia Studies
6 Required in first year: HIST 261 ${ }^{3}$, RELI $215^{3}$
3 Chosen from HIST $364^{3}, 365^{3}, 393^{3}$, $461^{6}$
9 Chosen from RELI $224^{3}, 225^{3}, 226^{3}, 318^{3}$, $340^{3}, 341^{3}, 342^{3}, 343^{3}, 347^{3}, 348^{3}, 350^{3}$, $351^{3}, 384^{3}$
6 Chosen from POLI $336^{3}, 424^{3}, 482^{3}$ NOTE: Any one of the above courses may be substituted by a Special Topic course on Southern Asia in the same Department.
18 Chosen from any relevant courses in the core disciplines, including Special Topics courses (not already counted towards the above requirements) or courses dealing with Southern Asia in the Departments
of Economics, Education, English, Geography, Sociology/Anthropology or the Faculty of Fine Arts and the John Molson School of Business

30 Minor in Southern Asia Studies
6 Required: HIST $261^{3}$; RELI $215^{3}$
6 Chosen from HIST $364^{3}, 365^{3}, 393^{3}$, $4611^{6}$; POLI $336^{3}, 424^{3}, 482^{3}$; ECON $311^{3}, 319^{3}$
9 Chosen from RELI $224^{3}, 225^{3}, 226^{3}, 318^{3}$, $340^{3}, 341^{3}, 342^{3}, 343^{3}, 347^{3}, 348^{3}, 350^{3}$, $351^{3}, 384^{3}$; FMST $335^{3}$
9 Elective credits from any courses dealing primarily with Southern Asia, and Special Topics courses in any discipline with a Southern Asia theme or focus

NOTE: For details on the course descriptions in the programs listed above, please refer to the individual departmental course listings.

## ELECTIVE GROUPS

Elective Groups

Colleges, Institutes and Schools

Elective Groups (formerly referred to as Clusters) are elective courses (15 to 18 credits) on a theme. Each group provides multidisciplinary and interdisciplinary course content.

| Credits | Elective Groups |
| ---: | :--- |
| 18 | Canadian Studies (Admission suspended for 2003-04) |
| 18 | Greek Studies |
| 18 | Health and Lifestyle |
| 18 | Introduction to Life Sciences |
| 15 | Irish Studies (Admission suspended for 2003-04) |
| 18 | Legal Studies |
| 15 | Marketing |
| 18 | Native Studies |
| 18 | Québec Studies |
| 18 | Spanish America |
| 18 | Preparing for Success in the Workplace: Skills, Issues and Practices |
| 18 | The Planet Earth: Studies in the Environment |
| 15 | Understanding Western Myth |
| 15 | The Basics of Business |

Course information on these Elective Groups is listed in the Undergraduate Class Schedule and on the University Web site at www.concordia.ca.

## COLLEGES, INSTITUTES AND SCHOOLS

Students wishing to pursue interdisciplinary studies may also wish to consider offerings in the Liberal Arts College $\S 31.520$, Lonergan University College $\S 31.530$, Loyola International College $\S 31.535$, School of Community and Public Affairs $\S 31.540$, Science College $\S 31.550$, or Simone de Beauvoir Institute $\S 31.560$ (also described in $\S 31.500$ ).

## INTERDISCIPLINARY COURSES

Interdisciplinary Courses variety of departments are listed in this section.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

INTE 202 (also listed as LUCC 202)
The Creative Self (3 credits)
This course explores the relationship between
experience, understanding and coming to knowledge as a contemporary person in search of identity. It is structured around the exploration of
these questions: How can life experience become a source of creative understanding? How can the learning process become one's own? What methods are available to help us learn how to learn? How can we learn to live what we know? NOTE: Students who have received credit for LUCC 200 or 202 may not take this course for credit.

## INTE 215 Great Ideas in Mathematics (3 credits)

Mathematics is used to unravel the secrets of nature. This course introduces students to the world of mathematical ideas and mathematical thinking. Without being overly technical, that is, without requiring any formal background from the student other than high school mathematics, the course delves into some of the great ideas of mathematics. The topics discussed range from the geometric results of the Ancient Greeks to the notion of infinity to more modern developments.
NOTE: This course is designed as a suitable elective for students following an undergraduate program. It has no formal prerequisites and will not qualify students to enrol for any other Mathematics course, and cannot be used to satisfy a Mathematics requirement in any BSC or BA program.
NOTE: Students who have received credit for MATH 215 or MATZ 215 may not take this course for credit.

## INTE 229 Philosophy and Literature

 ( 6 credits)This course focuses on the interaction of philosophy and literature in a selected period of history (for example, the ancient world; the Middle Ages and Renaissance; and the modern world), through readings and discussion of literature with a high thematic content and philosophical writings with important literary connections. NOTE: Students who have received a total of six credits for the set of courses consisting of INTE 230 or 231, or a total of six credits for the set of courses consisting of INTE 232 or 233, may complete the sequence by taking INTE 229 in the appropriate year (six credits).

## INTE 290 Computer Applications

 (3 credits)This course is designed to introduce students to fundamental uses of computers in word processing, data management, and elementary programming, as a basis for more advanced applications within their disciplines. This is accomplished by means of a series of tutorial packages combining printed text, videotapes, and software. The format is self-instructional, encompassing 40 hours of hands-on experience in the laboratory.
NOTE: Computer Science students, or students enrolled in Mathematics and Statistics programs, may not take this course for credit.

INTE $291 \quad$ Advanced Computer Applications (3 credits)
Prerequisite: INTE 290 or equivalent. This course
introduces advanced uses of computer packages, including mail merge, electronic mail, file management, data communications. The format is self-instructional, using computer-based tutorial packages, videotapes, and text. A minimum of 40 hours of laboratory work is required.

## INTE 293 Computer Application Development (3 credits)

This course introduces students to the use of contemporary computer tools in scientific applications. It is designed for students with some familiarity with the fundamentals of computing who wish to use computers as tools for research within science disciplines. The format is largely self-instructional, using computer-based tutorial packages. A minimum of 40 hours of laboratory work is required.
NOTE: See §200.7 for equivalent statistics courses.

## INTE 296 Discover Statistics (3 credits)

This course introduces students to the basics of statistics and is aimed at mastering the elementary analytical concepts of the subject. Topics include descriptive statistics, correlation and regression analysis, experimental analysis (test procedures), probability (distribution and theory), hypothesis testing, and analysis of variance. NOTE: Students who have received credit for this topic under an INTE 298 number may not take this course for credit.
NOTE: See §200.7 for equivalent statistics courses.

INTE 298 Special Topics (3 credits)
INTE 299 Special Topics ( 6 credits)
Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## INTE 333 (also listed as LUCC 333) Interdisciplinary Approaches to the Study of Peace ( 6 credits)

This course aims to introduce students to the study of peace and enable them to think critically about contemporary circumstances that condition the search for peace. Using specific case studies and appropriate methodologies, the course examines the role of values, cultures, and ideologies in the attainment of peace. This course is presented in cooperation with the Loyola Peace Institute.
NOTE: Students who have received credit for INTE 499A or LUCC 333, 499A may not take this course for credit.

## INTE 390 HIV/AIDS: Cultural, Social and Scientific Aspects of the Pandemic ( 6 credits)

An interdisciplinary survey of the major issues and challenges of the HIV pandemic. Such topics as the biology of the virus, therapeutic,
clinical and epidemiological research developments, the social costs of sexual taboos and discrimination, and media and artistic representation by and of people with HIV are presented by faculty and visiting community experts. The epidemics in the Western hemisphere, Africa, Asia, and other regions are addressed. Learning is based on lectures, weekly tutorials, and community involvement.

INTE $391 \quad$ (also listed as FASS 391) Issues in Sexuality Research (3 credits)
An interdisciplinary survey of approaches to research in sexuality within the humanities, the arts, and the social sciences. Basic concepts of sexual identity, values, conduct, representation, and politics are addressed through such topical concerns as pornography and censorship, and through the perennial dialogue between biological and socio-cultural models of sexuality. The relation between theories and research methods is discussed in the context of classical and current research and creative activity. The syllabus reflects the varying specializations of the instructors from year to year.

INTE 392 (also listed as FASS 392) Introduction to Queer Theory (3 credits)
An interdisciplinary survey of the basic post1970 theories of sexual minorities and diversity, in their historical and cultural contexts. Authors from Michel Foucault to Eve Kosofsky Sedgwick are introduced, as well as the work of artists and performers from Derek Jarman to k.d. lang. The syllabus reflects the varying specializations of the instructors from year to year.

INTE 398 Special Topics (3 credits)
INTE 399 Special Topics ( 6 credits)
Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

INTE 410 (also listed as LUCC 410) The Works of Bernard Lonergan ( 3 credits)
This course engages students in the task of integrating their specific fields of studies into the more general enterprise of human knowing and deciding. It reflects upon this experience with the aid of Bernard Lonergan's methodology. The texts are selected from the work of Lonergan. NOTE: Students who have received credit for LUCC 410 may not take this course for credit.

INTE 441 (also listed as LUCC 441) Issues in Contemporary Values ( 3 credits)
This course addresses central questions concerning what we love or detest, embrace or reject, prescribe or proscribe; what resources of human being, e.g. philosophical, psychological, or artistic, are implicitly or explicitly drawn upon in these choices; whether the choices we make are mere "preferences", or have objective status as values; and how these questions relate to the problems of our culture and our time. Through alternating emphases and faculty, the focus is changed from time to time.
NOTE: Students who have received credit for INTE 440, LUCC 440 or 441 may not take this course for credit.

## INTE 498 Special Topics (3 credits)

INTE 499 Special Topics (6 credits)
Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

### 31.160 HISTORY

| Faculty | Chair | JOHN L. HILL |
| :---: | :---: | :---: |
|  | RONALD RUDIN, Professor | NORMAN INGRAM FREDERICK H. KRANTZ |
|  | Distinguished Professors Emeriti | SHANNON McSHEFFREY |
|  | ALAN H. ADAMSON | ROSEMARIE SCHADE |
|  | DONALD E. GINTER | FRANZISKA E. SHLOSSER |
|  | Professors FREDERICK A. BODE STEPHEN J. SCHEINBERG | Assistant Professor DANA SAJDI |
|  | MARTIN SINGER | Adjunct Professors |
|  | ROBERT TITTLER | GEOFFREY ADAMS |
|  | MARY VIPOND | CHARLES L. BERTRAND GISELA CHAN MAN FONG |
|  | Associate Professors | DOLORES CHEW |
|  | GRAHAM CARR | ROBERT T. COOLIDGE |
|  | FRANK R. CHALK | DONALD SAVAGE |
|  | M. GRAEME DECARIE | MICHAEL WASSER |
|  | CAROLYN FICK |  |
| Location | Sir George Williams Campus | Loyola Campus |
|  | J.W. McConnell Building, Room: LB 601 (514) 848-2435 | Vanier Extension, Room: VE 223 |

Department
Objectives

It is the mission of the Department of History not only to train historians but to produce articulate and informed graduates who share its commitment to serving the broader community. The Department therefore encourages strength in both teaching and research, responsiveness to a wide range of intellectual perspectives, and involvement in community affairs.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

## 60 BA Honours in History

The following courses in an approved sequence constitute Honours in History. Students intending to enter the Honours program are advised to consult with the Department.

## A. Honours Essay Option

6 European History (HIST 2013, 2023)
6 North American History (from among HIST $\left.203^{3}, 205^{3}, 209^{3}, 210^{3}, 251^{3}, 253^{3}\right)$
6 Non-Western History (from among HIST $206^{3}, 207^{3}, 261^{3}, 262^{3}, 263^{3}, 264^{3}$, $276^{3}, 277^{3}$ )
3 HIST 200- or 300-level courses
12 HIST 300-level courses
3 HIST $304^{3}$ (Tutorial Preparation for the Honours Essay)
3 HIST 402 ${ }^{3}$ (The Philosophy and Practice of History)
3 HIST $403^{3}$ (Methodology and History)
6 HIST $493^{6}$ (Honours Essay Tutorial)
12 HIST 400-level seminars

## B. Seminar Option

6 European History (HIST 201 ${ }^{3}, 202^{3}$ )
6 North American History (from among

HIST $\left.203^{3}, 205^{3}, 209^{3}, 210^{3}, 251^{3}, 253^{3}\right)$
6 Non-Western History (from among HIST $206^{3}, 207^{3}, 261^{3}, 262^{3}, 263^{3}, 264^{3}$, $276^{3}, 277^{3}$ )
6 HIST 200-level courses
12 HIST 300-level courses
3 HIST $402^{3}$ (The Philosophy and Practice of History)
3 HIST 403 ${ }^{3}$ (Methodology and History)
18 HIST 400-level seminars
60 BA Specialization in History
6 European History (HIST 201³, 2023)
6 North American History (from among HIST $\left.203^{3}, 205^{3}, 209^{3}, 210^{3}, 251^{3}, 253^{3}\right)$
6 Non-Western History (from among HIST $206^{3}, 207^{3}, 261^{3}, 262^{3}, 263^{3}, 264^{3}$, $276^{3}, 277^{3}$ )
6 HIST 200-level courses
27 HIST 300-level courses
3 HIST $312^{3}$ (Historical Approaches and Practices)
6 Chosen from any HIST 400-level courses
60 BA Joint Specialization in English and History
6 ENGL $261^{3}, 262^{3}$

6 Periods before 1800 (British) from ENGL $302^{6}, 304^{6}$ through $324^{6}, 430^{3}$ through $441^{3}$
6 Canadian, American, and postcolonial from ENGL $360^{6}, 363^{3}$ through $388^{3}$, $448^{3}$ through $454^{3}$
6 19th century and 20th century (British and European) from ENGL $324^{3}$ through $359^{3}$, $394^{3}, 442^{3}, 443^{3}, 445^{3}$ through $447^{3}$
6 Elective credits from ENGL $224^{3}$ through $499^{3}$
6 HIST 201 ${ }^{3}, 202^{3}$
6 Chosen from HIST 203 ${ }^{3}, 205^{3}, 251^{3}, 253^{3}$
6 200-300 level non-Western HIST
3 300-level pre-1800 Canadian, American, British, or European HIST
3 300-level post-1800 Canadian, American, British, or European HIST
$6 \quad 300-400$ level History elective credits
3 300-level post-1800 Canadian, American, British, or European HIST
$6 \quad 300-400$ level History elective credits

42 BA Major in History
6 European History (HIST 201³, 2023)
6 North American History (from among HIST 203 $\left.{ }^{3}, 205^{3}, 209^{3}, 210^{3}, 251^{3}, 253^{3}\right)$
6 Non-Western History (from among HIST $206^{3}, 207^{3}, 261^{3}, 262^{3}, 263^{3}, 264^{3}$, $276^{3}, 277^{3}$ )
18 Chosen from any HIST 300-level courses
6 Chosen from any HIST 300- or 400-level courses

## 24 Minor in History

12 HIST 200-level (Field Surveys) from among: European History (HIST 201 ${ }^{3}$, $202^{3}$ ) or North American History (from among HIST $203^{3}, 205^{3}, 209^{3}, 210^{3}$, $251^{3}, 253^{3}$ ) or Non-Western History (from among HIST $206^{3}, 207^{3}, 261^{3}$, $262^{3}, 263^{3}, 264^{3}, 276^{3}, 277^{3}$ )
12 credits in History with a minimum of six credits at the 300 level

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## N.B.:

(1) 300 -level courses are generally open only to students who have successfully completed 24 credits. Students who do not have this prerequisite may register with the permission of the Department.
(2) 400-level courses are generally open to Honours and Specialization students, or students of high academic standing, or with the permission of the Department.

## HIST 201 Introduction to European <br> History to 1789 (3 credits)

A survey of the history of Europe to the French Revolution, with emphasis on the development of ideas and political institutions.
NOTE: Students who have received credit for HISZ 201 may not take this course for credit.

HIST 202 Introduction to European History, from 1789 to the Present (3 credits)
A survey of the history of Europe from the French Revolution to the present, with emphasis on the development of ideas and political institutions. NOTE: Students who have received credit for HISZ 202 may not take this course for credit.

## HIST 203 History of Canada,

Pre-Confederation (3 credits)
A survey of Canadian history, from settlement to Confederation, emphasizing readings and discussions on selected problems.

HIST 205 History of Canada, Post-Confederation (3 credits) A survey of Canadian history from Confederation to the present, emphasizing readings and discussions on selected problems.
NOTE: Students who have received credit for HISZ 205 may not take this course for credit.

HIST 206 Introduction to the Non-Western World I (3 credits)
By giving an account of the worlds of Asia, Africa and the Americas between c. 1400 and C. 1900 we seek to show the interplay between local and international historical developments in the making of the global economy. In this course, we study both the largely autonomous developments of such centres of civilization as China and the Ottoman Empire, and the effects on the non-Western world of European expansion. The course ends with a discussion of the Age of Empire.
NOTE: Students who have received credit for HISZ 206 may not take this course for credit.

## HIST 207 Introduction to the Third World, 1945 to the Present

 (3 credits)This course covers the emergence and development of the Third World from 1945 to the present. It focuses principally on the development policies of Third World leaders and seeks to explain the effects which they have had on economic and social development.

HIST 209 Québec to 1867 (3 credits) An introductory survey of the history of Québec from its origins as a colony to the creation of modern Canada by the British North American

Act of 1867. Particular emphasis is placed on a consideration of those elements of Québec's past which best assist in the comprehension of the trends prevalent in modern Québec.

## HIST 210 Québec since Confederation

 (3 credits)A survey of the history of Québec from the time of Confederation until the present. While due emphasis is placed on political developments in the province, the purpose of the course is to acquaint the student with the significant economic and social trends in modern Québec.

HIST 211 History of Ireland (3 credits)
This survey course traces the history of Ireland from the earliest times to the present, with emphasis on the nineteenth and twentieth centuries. Special attention is given to the development of Irish nationalism and relations with Great Britain.
NOTE: Students who have received credit for HIST 348 may not take this course for credit.

## HIST 215 History of Recreation and

 Leisure in Canada (3 credits)A survey of the history of recreation and leisure from the time of European contact with native peoples to the present day. It is placed in the context of Canadian history to examine such phenomena as European and American influences on Canada, effects of urbanization, the roles of women in society, and the commercialization of leisure. Recreation and leisure are understood to include not only sports and games, but such activities as rural bees, education, drinking, gambling, and celebrations. The course also provides an introduction to the historical literature on recreation and leisure, and to the discipline of History.

## HIST 219 (also listed as CLAS 230)

Ancient Near East (3 credits)
A political, social, economic, and intellectual history of the ancient Near East, this course surveys the period from the origins of civilization in the middle of the fourth millennium to Alexander the Great's conquest of the Persian Empire in the latter part of the fourth century B.C.
NOTE: Students who have received credit for CLAS 230 may not take this course for credit.

## HIST 223

(also listed as CLAS 240) Greek History from the Bronze
Age to Alexander (3 credits)
This course offers a political, social, economic, and cultural history of Greece from the MinoanMycenaean period in the second millennium to the end of Classical Greek civilization in the fourth century B.C., with special emphasis placed upon Athens.
NOTE: Students who have received credit for CLAS 240 may not take this course for credit.

HIST 225 (also listed as CLAS 242)
History of the Roman Republic (3 credits)
This course offers a political, social, economic
and cultural history of Rome from the city's origins to the establishment of the Roman Empire under the Emperor Augustus.
NOTE: Students who have received credit for CLAS 242 may not take this course for credit.

## HIST 251 History of the United States to

 1877 (3 credits)Survey of American history from settlement to 1877. The course deals with the political and economic framework of American history, and with social and cultural trends.

HIST 253 History of the United States since 1877 (3 credits)
Survey of American history from 1877 to the present. The course deals with the political and economic framework of American history, and with social and cultural trends.

HIST 261 History of India (3 credits) An introduction to the intellectual traditions, social structures, and political institutions of South Asia, with particular attention to developments during the past two centuries.

HIST 262 History of China (3 credits) A survey of China's history from earliest times to the modern era.

HIST 263 History of Japan (3 credits) A survey of Japan's history from earliest times to the modern era.

HIST 264 History of Africa (3 credits)
An introductory survey of African history from the fifteenth century to the present. Particular emphasis is placed on pre-colonial Africa and the impact of colonialism on its political and economic patterns.

## HIST 276 History of Latin America:

 The Colonial Period (3 credits)A survey of Latin America up to the wars of independence from Spain. The main themes examined are: pre-Columbian cultures; the Spanish conquest; patterns of colonial trade and economy; the role of the church; the Bourbon reforms.
NOTE: Students who have received credit for HIST 371 may not take this course for credit.

## HIST 277 History of Latin America:

 The Modern Period (3 credits) A survey of Latin American society in the nineteenth and twentieth centuries. The principal topics covered are: the social and economic roots of political instability; Mexico under Porfirio Díaz; the Mexican Revolution; Argentina and Brazil under Perón and Vargas; U.S.-Latin American relations; Castro's Cuba; revolution and counter-revolution in contemporary Latin America.NOTE: Students who have received credit for HIST 374 may not take this course for credit.

HIST 281 Film in History (3 credits)
This course examines how selected commercial films interpret historical events or provide insight into the politics, society, and culture of the times in which they were produced. The course is designed to help develop critical skills for the understanding of film in an historical framework. NOTE: Students who have received credit for HISZ 281, or for this topic under an HIST 298 or HISZ 298 number may not take this course for credit.

HIST 283 The Twentieth Century: A Global History (3 credits) This course introduces students to the history of some of the forces and institutions that have shaped the history of the world in the twentieth century, which has been characterized by widespread warfare, genocides, and massive violations against human rights and the natural environment. It has also been a time of unprecedented prosperity of some groups and parts of the globe, as well as an era of tremendous scientific advances.
NOTE: Students who have received credit for HISZ 283 or LOYC 210, or for this topic under an HIST 298 or HISZ 298 number may not take this course for credit.

HIST 298 Selected Topics in History (3 credits)

HIST 299 Selected Topics in History ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## HIST 300 British North America

 (3 credits)Prerequisite: See N.B. number (1). This course examines British imperial policy, cross-cultural contact and the development of colonial societies in 18th- and 19th-century North America.

## HIST 301 Late Nineteenth-Century Canada (3 credits)

Prerequisite: See N.B. number (1). This course examines the politics of confederation and explores the social, economic, and cultural impact of modernization.

## HIST 304 Tutorial Preparation for the

 Honours Essay (3 credits)Prerequisite: Approved Honours standing in History, or permission of the Department. This course provides Honours students in History with the opportunity for tutorial reading and research in preparation for the writing of the Honours Essay.

HIST 305 Women in Canadian History (3 credits)
Prerequisite: See N.B. number (1). A survey of the position and roles of women in Canadian
society from the seventeenth century to the present. Topics covered include women's work, the family and the pre-industrial and modern industrial economies; ideological constructions of feminity, motherhood, and sexuality; and the development of feminist and anti-feminist movements.

## HIST 306 Introduction to Public History

 (3 credits)Prerequisite: See N.B. number (1). This course is an examination of the practice of history outside the academy and an introduction to the critical analysis of presentations of history in public and popular culture. Topics include archives, corporate and popular history, museums and historic sites, preservation, film and television, theme parks, and anniversary commemorations. There will be a special emphasis on public controversies involving historical interpretations.
NOTE: Students who have received credit for HIST 347 may not take this course for credit.

HIST 307 History of Montréal (3 credits) Prerequisite: See N.B. number (1). A study of the origins of the city, its role in the Empire of the St. Lawrence, and its rise to metropolitan dominance in Canada. Special emphasis on economic development and on ethnic groupings.

## HIST 308 History of English-Speaking

 Québec (3 credits)Prerequisite: See N.B. number (1). An analysis of the experience of the different groups which have made up this community, from the Conquest to the present.

## HIST 309 History of the Canadian North

 (3 credits)Prerequisite: See N.B. number (1). An intensive study of the advance of the northern frontier of Canada, with emphasis on the period 1840-1945. The course stresses exploration, problems of sovereignty, conflict of cultures, and economic development.

## HIST 310 Canada in the Early Twentieth Century, 1896-1939 (3 credits)

 Prerequisite: See N.B. number (1). An intensive study of early twentieth-century Canada concentrating on selected themes in economic, political, social, and cultural history.
## HIST 311 Contemporary Canada, 1939 to

 the Present (3 credits)Prerequisite: See N.B. number (1). An intensive study of Canada since World War II concentrating on selected themes in economic, political, social, and cultural history.

HIST 312 Historical Approaches and Practices (3 credits)
Prerequisite: Specialization or Major in History, or permission of the Department. This course addresses a specific historical problem which varies from year to year depending on the
instructor. Historiography and methods (including online research) are emphasized. NOTE: Students who have received credit for HIST 302, 303, 397, 402, or 403 may not take this course for credit.

HIST 313 Québec in the Nineteenth Century (3 credits)
Prerequisite: See N.B. number (1). This course explores the major social, economic, and political issues that arose during the 1800s in the transformation of Québec from a pre-industrial to an industrial society.

## HIST 314 Québec in the Twentieth Century (3 credits)

Prerequisite: See N.B. number (1). This course explores the major social, economic, and political issues of twentieth-century Québec in the light of the concentration of economic power into relatively few hands early in the century and the declining importance of industrial production since World War II.

## HIST 316 History of the Byzantine Empire, 602-1056 (3 credits)

Prerequisite: See N.B. number (1). A survey of the transformation from Late Antiquity into the Byzantine commonwealth. Changes in economic and social conditions will provide the general framework, with special attention given to the reorganization of administrative and military structures, Byzantium's relationship with its Balkan neighbours, the Arab conquest, and the rising importance of Asia Minor.
NOTE: Students who have received credit for HIST 324 may not take this course for credit.

## HIST 317 Canada Views the United States (3 credits)

Prerequisite: See N.B. number (1). An examination of Canadian attitudes to the United States from 1776 to the present, with respect to both specific incidents and general trends. Emphasis is placed on the discussion of primary source material.

## HIST 318 History of the Byzantine

 Empire, 1056-1453 (3 credits) Prerequisite: See N.B. number (1). A survey of Byzantine Empire from the end of the Macedonian dynasty to the Turkish conquest of Constantinople. Changes in economic and social conditions will provide the general framework, with special attention given to the reorganization of administrative and military structures, Byzantium's relationship with its Balkan neighbours, the Islamic conquest, and the rising importance of Asia Minor.NOTE: Students who have received credit for HIST 324 may not take this course for credit.

HIST 319 Canadian History in Literature, Art and Film (3 credits)
Prerequisite: See N.B. number (1). An examination of some major events and themes in

Canadian history as seen by writers, artists, and film-makers. Topics will vary from year to year, but will be selected to illustrate how creative works may be combined with more conventional historical sources to enhance our understanding of the past.

HIST 322 Buildings, Space, and Society in Early Modern England (3 credits)
Prerequisite: See N.B. number (1). This architectural and social history course examines the interaction between building types (churches, town halls, cathedrals, country homes, and ordinary housing) and those who used, furnished, and designed them, from the late Middle Ages to the Great Fire and Rebuilding of London. NOTE: Students who have received credit for this topic under an HIST 398 or ARTH 398 number may not take this course for credit.

## HIST 323 (also listed as CLAS 341) Greek History from Alexander to the Roman Conquest (3 credits)

Prerequisite: See N.B. number (1). A political, social, economic, and cultural history of the Greek world from Alexander the Great to the Roman conquest of Greece in 146 B.C. NOTE: Students who have received credit for CLAS 241/HIST 224 or CLAS 341 may not take this course for credit.

HIST 325 Renaissance Europe (3 credits) Prerequisite: See N.B. number (1). This course explores the transition from later Medieval to Renaissance Europe. Special attention is given to the nature, development, and influence of the Italian Renaissance. Attention is also given to social and political issues in early modern Europe.

## HIST 326 Reformation and CounterReformation in Early Modern Europe ( 3 credits)

Prerequisite: See N.B. number (1). An examination of the European Reformation and CounterReformation. Beginning with the late medieval context, the course stresses the significance of the period for the development of Western thought and society.

## HIST 327 (also listed as CLAS 343) History of the Roman Empire (3 credits)

Prerequisite: See N.B. number (1). This course offers a political, social, economic, and cultural history of the Roman Empire from Augustus to the end of the Roman Empire in the West.
NOTE: Students who have received credit for CLAS 243/HIST 226 or CLAS 343 may not take this course for credit.

## HIST 328 <br> Social and Intellectual History of Early Modern Europe <br> (6 credits) <br> Prerequisite: See N.B. number (1). A study of

change and continuity in European society and culture, 1300-1650. Problems studied include feudal-capitalist relationships, the Italian Renaissance, Northern State Development, Protestant Reformation, Scientific Revolution, and European Colonial expansion. Methodological issues are emphasized.

## HIST 329 Women in Western History I

 (3 credits)Prerequisite: See N.B. number (1). A survey of the position and roles of women in Western history from antiquity to the French Revolution. Themes analysed in the lectures and in discussions include: women's position in early law; the concept of courtly love; women in the French Revolution; the working woman in pre-industrial Europe.

HIST $330 \quad$ Urban Society in Early Modern Europe (3 credits)
Prerequisite: See N.B. number (1). This course is a survey of urban society from the Renaissance to the eve of Industrialization (c. 14501750), with an emphasis on cities in Western and Central Europe. Particular attention will be paid to civic building and urban planning, population and social structure, political and economic organization, economic life, and civic culture.

## HIST 331 Women in Western History II

 (3 credits)Prerequisite: See N.B. number (1). A survey as above but covering the period from after the French Revolution to modern times. Themes analysed in the lecture and in discussions include: women in post-industrial Europe; the Suffrage Movement; the Feminist Movement in Europe and North America; women during the two World Wars; women in the modern work-force.

## HIST 332 Social History of Costumes and Interiors I (3 credits)

Prerequisite: See N.B. number (1). A social history of European civilization as reflected by fashions in dress and interiors. Dress especially mirrors accurately a society's ideals in aesthetics and morals; interiors indicate lifestyles and social habits. Both costumes and interiors are treated in this course as an illustration of social history underscoring social change as from era to era. The course covers a time-span from the Middle Ages to the Renaissance, including a brief introduction to the classical period.

HIST 333 Social History of Costumes and Interiors II (3 credits)
Prerequisite: See N.B. number (1). Based on the same principles as HIST 332, this course covers a time-span from the Reformation to the Victorian Age.

HIST 334 Social and Intellectual History of Modern Europe ( 6 credits)
Prerequisite: See N.B. number (1). The
intellectual systems arising in Europe since the
seventeenth century are explored in the context of the economic and social circumstances which engendered them. This course begins with the rise of theories of "possessive individualism", and ends with the contemporary cultural crisis. While attention is paid to the general dynamics of culture, special attention is devoted to the social functions of particular ideologies.

## HIST 335 Barbarian Invasions and the Birth of Europe (3 credits)

Prerequisite: See N.B. number (1). This course examines the arrival and settlement of new populations in the Roman world. It analyses the changes that this event brought in its wake. Classical civilization was disrupted, but there was also a symbiosis of the old and the new, which in time gave rise to Europe in the Middle Ages.

## HIST 336 Late Antiquity: Continuity and Change (3 credits)

Prerequisite: See N.B. number (1). This course examines the similarities and contrasts between society in Late Antiquity and the new societies that arose based on Christianity, barbarian kingdoms, and the East Roman Empire. We pursue what Peter Brown has called The World of Late Antiquity, its culture, social patterns, political institutions, and economic conditions that interlock to form new and distinct societies in a world that had regarded itself for centuries as being "universal".

## HIST 337 History of Early Medieval

 Europe (3 credits)Prerequisite: See N.B. number (1). A study of European society during the Early Middle Ages. The course will explore the fall of the Roman Empire in the West, the period of invasions, the conversions to Christianity and the development of the Western Latin Church, the rise of the Carolingians, the Viking raids, and the structures of society and politics.

## HIST 338 History of Later Medieval Europe (3 credits)

Prerequisite: See N.B. number (1). A study of European society during the Later Middle Ages. The course will explore the ramifications of the revival of urban and commercial life, the development of national monarchies in France, England, and Spain, the varying fortunes of the Holy Roman Empire, the rise and fall of papacy, the problem of dissent in a theoretically unified society, and the effects of economic chaos and epidemics in the age of the Black Death.

## HIST 340 History of England,

c. 1460-1714 (3 credits)

Prerequisite: See N.B. number (1). This course is a survey of the political, economic, and social development of England from the late Middle Ages through the Stuart Era.
NOTE: Students who have received credit for HIST 342 may not take this course for credit.

## HIST 341 History of Britain Since 1714

 (3 credits)Prerequisite: See N.B. number (1). This course is a survey of the political, economic, and social development of Britain since the Stuart Era.
NOTE: Students who have received credit for HIST 342 may not take this course for credit.

## HIST 343

## Art and Society in Renaissance England (3 credits)

Prerequisite: See N.B. number (1). This interdisciplinary course examines the role of buildings, painting, and sculpture in the social and political world of Renaissance England, both in royal and courtly society and in the lives of common people. NOTE: Students who have received credit for this topic under an HIST 398 or ARTH 398 number may not take this course for credit.

HIST 349 Family, Sex and Marriage in Pre-Industrial Europe (3 credits)
Prerequisite: See N.B. number (1). This course deals with the development of marriage and other family relationships in the pre-industrial West, from the beginning of the Middle Ages to about 1700 . Topics to be considered include Christian influence on Western ideas about sexuality and marriage; the organization of work within families; how families influenced gender identities; and attitudes towards child-rearing and education.

HIST 350 Medieval England (3 credits) Prerequisite: See N.B. number (1). This course examines the history of England between the Norman Conquest in 1066 and 1500. Topics include the political, social, and cultural impact of the Norman Conquest; Jews and the expulsion of 1290; knights and peasants; the Peasant's Revolt of 1381; crime and the Robin Hood legends; heresy and popular religion; urban culture and guilds.

HIST 351 German History in the 19th Century (3 credits)
Prerequisite: See N.B. number (1). A study of the ideological, cultural, political, and socioeconomic development of Germany from the break-up of the Holy Roman Empire to the First World War.
NOTE: Students who have received credit for HIST 345 may not take this course for credit.

HIST 352 German History in the 20th Century (3 credits)
Prerequisite: See N.B. number (1). A study of the ideological, cultural, political, and socioeconomic development of Germany from the First World War to the present.
NOTE: Students who have received credit for HIST 345 may not take this course for credit.

HIST 353 Colonial America (3 credits)
Prerequisite: See N.B. number (1). This course examines the earliest period of American history. It gives special emphasis to the nature of

Amerindian society, white-Amerindian contact, and the varieties of colonial settlement patterns.

HIST 354 Revolutionary America (3 credits)
Prerequisite: See N.B. number (1). This course examines themes and issues in the revolutionary and early national periods of American history.
HIST 355 United States in the Nineteenth Century, 1815-1850 (3 credits)
Prerequisite: See N.B. number (1). A study of American political, social, and economic life from the end of the War of 1812 to about 1850 - the intensification of sectionalism. Topics include geographic expansion and the beginnings of industrialization, the characteristics of southern slave society, and the rise of a system of political parties during the age of Jackson.

HIST 356 United States in the Nineteenth Century: The Era of the Civil War (3 credits)
Prerequisite: See N.B. number (1). A study of American political, social, and economic life before and after the Civil War, from about 1850 to 1890 . Topics include sectionalism and the breakdown of parties during the 1850s, the tasks of Reconstruction after the war, the New South, and the problems of a maturing industrial society.

## HIST 357 Foreign Relations of the United States to 1917 <br> (3 credits)

Prerequisite: See N.B. number (1). An analysis of United States foreign policy from the American Revolution to United States' entry into World War I, emphasizing the domestic debate over foreign policy and economic development, commercial and territorial expansion, and the dynamics of Canadian-American relations.

## HIST 358 Foreign Relations of the United States, 1917 to the Present (3 credits)

Prerequisite: See N.B. number (1). A historical investigation of United States foreign policy from American intervention in the Russian Revolution to the present, emphasizing the United States' responses to the challenge of revolutions in Asia and Africa, American conceptions of a new world order, the rise of the multinational corporation and its impact on Canadian-American relations.

HIST 359 (also listed as SOCI 366) The History and Sociology of Genocide to 1920 (3 credits)
Prerequisite: See N.B. number (1). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that have led to it up to 1920.
NOTE: Students who have received credit for HIST 368 or SOCI 366 or 368 may not take this course for credit.
(also listed as SOCI 367) The History and Sociology of Genocide from 1920 to the Present (3 credits)
Prerequisite: See N.B. number (1). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that led to genocide from 1920 to the present.
NOTE: Students who have received credit for HIST 368 or SOCI 367 or 368 may not take this course for credit.

## HIST 361 Africa in the Nineteenth

 Century (3 credits)Prerequisite: See N.B. number (1). The central focus of this course is the European assault on Africa and the unfolding of colonial economy and society. Some emphasis is placed on resistance to colonialism and the origins of nationalism.

HIST 362 Traditional China (3 credits) Prerequisite: See N.B. number (1). An examination of Chinese history from the beginning to the Ch'ing dynasty (c. 1800). Emphasis is placed on China's political, intellectual, and cultural heritage.

HIST 363 Africa in the Twentieth Century (3 credits)
Prerequisite: See N.B. number (1). This course deals with questions of nationalism and of the economic and social development of colonial and post-colonial Africa. There is particular focus on liberation and revolutionary movements.

## HIST 364 India/Pakistan: Empire and Resistance, 1750-1950

 (3 credits)Prerequisite: See N.B. number (1). British conquest established nearly two centuries of colonial rule over the world's oldest civilization. This course examines the nature of imperial control, the resistance of traditional leaders, European intellectual imperialism, Indian cultural and religious revivalism, and modern nationalism. Special attention is paid to M.K. Gandhi and Gandhism as well as to Muslim separatism and the Pakistan movement.

## HIST 365 India/Pakistan: Money and Society Since 1800 (3 credits)

 Prerequisite: See N.B. number (1). British India was a vital part of a great commercial and industrial empire at the highest stage of capitalism. This course explores the economic and social impact of this period on Indian society up to the present. Imperial capitalism, the Indian entrepreneurial elites, peasants and famine, industrialization, the effects of two world wars, and the challenge of communist and Islamic movements since independence are investigated.HIST $366 \quad$ Nineteenth Century China (3 credits)
Prerequisite: See N.B. number (1). An intensive study of Chinese history between 1800 and the
beginnings of the Chinese Revolution with emphasis on problems in political, social, and intellectual history.

## HIST 367 Twentieth Century China

 (3 credits)Prerequisite: See N.B. number (1). An intensive study of Chinese history since 1900 with emphasis on problems in political, social, and intellectual history.

## HIST 370 The Modern Middle East to 1945 (3 credits)

Prerequisite: See N.B. number (1). This course is intended to provide a general historical background to the Middle East. Beginning with a discussion of the rise of Islam, it continues through the period of the rise of nationalism and ends at the beginning of the contemporary era.

HIST 372 The Contemporary Middle East, 1945 to the Present (3 credits)
Prerequisite: See N.B. number (1). This course discusses the contemporary Middle East, focusing on such questions as the end of European influence, nationalism, fundamentalism and the Gulf War.

## HIST 375 History of the Colonial

 Caribbean (3 credits)Prerequisite: See N.B. number (1). This course covers the period from pre-Columbian contact to the late eighteenth century. Themes include the origins of sugar and slavery; the slave trade; the rise of colonialism; the emergence and maturation of colonial social structure. NOTE: Students who have received credit for HIST 380 may not take this course for credit.

HIST 376 The Caribbean and the Atlantic World (3 credits)
Prerequisite: See N.B. number (1). This course covers the period from the seventeenth century to the end of the nineteenth century. Themes include slavery and the slave community; modes of adaptation and resistance; the politics and economics of abolition; alternative labour forms; the rise of political movements.
NOTE: Students who have received credit for HIST 380 may not take this course for credit.

HIST 377 History of Russia (3 credits) Prerequisite: See N.B. number (1). This course traces the origins of the medieval Russian state from the ninth century to the emergence of the Russian Empire. Emphasis is placed on political, social, and economic problems of the eighteenth and nineteenth centuries. Particular attention is devoted to the Revolutions of 1905 and 1917.

## HIST 378 History of the Soviet Union

 (3 credits)Prerequisite: See N.B. number (1). This course examines the ideological roots of the Bolshevik Revolution, and traces the main economic,
social, and political developments of the Soviet Union. In addition, an analysis of Soviet foreign policy is presented from 1917 to the present.

## HIST 382 Age of Enlightenment

 1715-1789 (3 credits)Prerequisite: See N.B. number (1). An examination of major developments in European society from the death of Louis XIV to the French Revolution. Special attention is given to social and intellectual movements, more particularly to the rise of the bourgeoisie and to the key ideas of the Enlightenment.

HIST 383 Age of Revolution 1789-1848 (3 credits)
Prerequisite: See N.B. number (1). A study of the dual Revolution - industrial and political - in England and France, and its initial consequences throughout Europe.

## HIST 384 Age of Industrialization and Nationalism 1848-1914

(3 credits)
Prerequisite: See N.B. number (1). A study of the transformation of European society, economy, and politics in the years between the upheavals of the mid-nineteenth century and the collapse of the traditional order in World War I.

## HIST 385 Age of Dictators: Europe,

 1914-1945 (3 credits)Prerequisite: See N.B. number (1). A study of the internal development and external relations of the nations of Europe from the Great War to the end of World War II. The course examines this chaotic age primarily through an investigation of the revolutionary and reactionary upheavals that kept Europe socially, politically, and economically unbalanced for 30 years.

## HIST 386 Contemporary Europe: 1945 to

 the Present (3 credits) Prerequisite: See N.B. number (1). A study of the internal development and external relations of the nations of Europe from the collapse of Nazi Germany to the present. The course concentrates on the divisions between East and West, the economic recovery of Europe and the effects of the energy crisis on social, economic, and political life throughout Europe.HIST 388 History of Modern Italy: 1848 to 1922 (3 credits)
Prerequisite: See N.B. number (1). A survey of the crucial developments in Italian history from the Risorgimento to the rise of fascism. The course emphasizes the problems surrounding the creation of a united Italy. Specifically, the course examines the issues raised by nationalism, liberalism, Catholicism, and industrialization.

## HIST 389 History of Modern Italy: 1922

 to the Present (3 credits)Prerequisite: See N.B. number (1). A survey of the crucial developments in Italian history from

Mussolini's seizure of power to the present. The course examines the role and legacy of fascism, the creation of the republic, the economic miracle, the political and social turmoil, and the rise of terrorism.

HIST $390 \quad$ France 1789-1871 (3 credits) Prerequisite: See N.B. number (1). This course introduces students to the history of France from the Revolution of 1789 to the Franco-Prussian War of 1870 . Of central concern is the importance of the revolutionary heritage in nineteenth-century French history, but the course also looks at intellectual, social, and literary developments.

HIST 391 Independent Study Tutorial in History (3 credits)
Prerequisite: See N.B. number (1). This course permits individual study, with a selected faculty member, in a specialized area not available among regular 300 -level classes.

## HIST 392 France 1871 to the Present

 (3 credits)Prerequisite: See N.B. number (1). This course introduces students to the history of France from the Commune of 1871 to the Fifth Republic. This course deals with such issues as the Dreyfus Affair, the legacy of two World Wars in French history, the Vichy regime, collaboration and French fascism, the May events of 1968, and so forth. Political, social, and intellectual developments will be discussed.

HIST 393 Vietnam War (3 credits)
Prerequisite: See N.B. number (1). The protracted Vietnamese conflict in both its French (1940-54) and American (1955-75) phases is analysed using lectures, audio-visual materials, documents, and soldiers' accounts. Vietnam's historical evolution and colonial experience are briefly discussed as essential to understanding the war as a military, political, and cultural struggle.

HIST 394 The United States 1890-1920 (3 credits)
Prerequisite: See N.B. number (1). This course includes the rise of the corporation and the trade unions. The Populist, Progressive, and Suffrage Movements are given major attention.

HIST 395 The United States 1920-1945 (3 credits)
Prerequisite: See N.B. number (1). A study of Post World War I America that extends through World War II. Political and social history are emphasized.

## HIST 396 The United States Since 1945

 (3 credits)Prerequisite: See N.B. number (1). The immediate historical background of today's America is the subject matter of this course. Major themes include civil rights, the rise of modern feminism, and economic change.

Selected Topics in History (3 credits)

HIST 399 Selected Topics in History ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

HIST 402 The Philosophy and Practice of History (3 credits)
Prerequisite: Approved Honours standing in History, or permission of the Department. This course examines problems in the philosophy and practice of history. Particular attention is given to contemporary debates about history as a distinctive mode of understanding and explanation. This course is required of all Honours students.
NOTE: Students who have received credit for HIST 302 or 397 may not take this course for credit.

HIST 403 Methodology and History (3 credits)
Prerequisite: Approved Honours standing in History, or permission of the Department. This course examines the variety of sources, methods, and modes of analysis used in the research and writing of history. It addresses both theoretical and practical aspects of method. This course is required of all Honours students.
NOTE: Students who have received credit for HIST 303 or 397 may not take this course for credit.

## HIST 411 Seminar in Canadian History

 ( 6 credits)Prerequisite: See N.B. number (2). Advanced seminar in the history of Canada. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

## HIST 412 Advanced Study in Canadian History (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of Canada. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

## HIST 436 Seminar in European History

 (6 credits)Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of Europe. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 437 Advanced Study in European History (3 credits)
Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of Europe. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 451 Seminar in American History ( 6 credits)
Prerequisite: See N.B. number (2). Advanced seminar in the history of the United States. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

## HIST 452 Advanced Study in American

 History (3 credits)Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of the United States. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

## HIST 461 Seminar in Asian History

 (6 credits)Prerequisite: See N.B. number (2). Advanced seminar in Asian history. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

## HIST 462 Advanced Study in Asian <br> History (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in Asian history. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

## HIST 470 Seminar in African History

 ( 6 credits)Prerequisite: See N.B. number (2). Advanced seminar in the history of Africa. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 471 Advanced Study in African History (3 credits)
Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of Africa. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 476 Seminar in the Third World (6 credits)
Prerequisite: See N.B. number (2). Advanced seminar in the history of the Third World. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

## HIST 477 Advanced Study in the Third

 World (3 credits)Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of the Third World. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 478 Seminar in Women's History ( 6 credits)
Prerequisite: See N.B. number (2). Advanced seminar in women's history. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 479 Advanced Study in Women's History (3 credits)
Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in women's history. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 491 Individual Study Tutorial in History (3 credits)
Prerequisite: See N.B. number (2). This course permits an individual student to pursue advanced study, with a selected faculty member, in a specialized area not available among scheduled 400-level seminars.

## HIST 492 Individual Study Tutorial in

 History (6 credits)Prerequisite: See N.B. number (2). This course permits an individual student to pursue advanced study, with a selected faculty member, in a specialized area not available among scheduled 400-level seminars.

## HIST 493 Honours Essay Tutorial

 (6 credits)Prerequisite: See N.B. number (2). This course is open only to Honours students in History. The student works with an individual faculty member in a particular area of history. Students are asked to produce a sustained piece of written work, not exceeding 40 pages in length, to be read by their adviser and at least one other member of the Department.

HIST 498 Advanced Topics in History (3 credits)

HIST 499 Advanced Topics in History (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.180 JOURNALISM 

| Faculty | Director <br> ENN RAUDSEPP, Associate Professor <br> Diploma Program Director <br> LINDA KAY, Assistant Professor <br> Faculty <br> ROSS PERIGOE, Associate Professor <br> SHEILA ARNOPOULOS, Assistant Professor <br> MICHAEL JOHN GASHER, Assistant Professor <br> Lecturers <br> BARRY CONWAY <br> PETER DOWNIE <br> Sessional Instructors <br> HUGH ANDERSON, Freelance Writer <br> BOB BABINSKI, CBC TV Sportscaster <br> JACK BRANSWELL, The Gazette <br> JAY BRYAN, The Gazette <br> ALAN CONTER, Radio Canada | PETER COONEY, New Media, The Gazette AARON DERFEL, The Gazette CONRAD DUROSEAU, Photographer LEONARD GERVAIS, Editor, Tool Box MATTHEW HAYS, Editor, The Mirror KATHLEEN HUGESSEN, Freelance Writer JANET KASK, Freelance Journalist BARRY LAZAR, Independent Film Maker DONNA NEBENZAHL, The Gazette LAURIE NYVEEN, Journalist BRENDA O'FARRELL, The Gazette DENISE ROIG, Freelance Journalist JACK ROMANELLI, The Gazette ANDREA SHEPHERD, Pagination Systems, The Gazette MINKO SOTIRON, Writer and History Lecturer BERNARD ST-LAURENT, CBC Radio News PETER STOCKLAND, Editor, The Gazette DAVID WATERS, Freelance Writer JOEL YANOFSKY, Journalist |
| :---: | :---: | :---: |
| Location | Loyola Campus <br> Hingston Hall B, Room: HB 434 <br> (514) 848-2465 <br> E-Mail: conjour@vax2.concordia.ca |  |
| Department Objectives | Journalism studies are designed to help students writers upon which society depends for the exerci is an intellectual activity with rigorous standards for To help students become knowledgeable and vers Journalism offers a professional education that co Writing and production workshops emphasize the assignments of working journalists. Newsroom stand these courses are lectures and seminars which an journalism is practised. | come the intelligent and versatile reporters and of its democratic functions. Above all, journalism thering, processing, and disseminating information. tile reporters and writers, the Department of bines theory and practice. actical, simulating as much as possible the dards are universally applied. Complementing lyse the social and political contexts in which |

## Admission and

Graduation
Requirements

Enrolment in the writing workshops in the Department of Journalism is limited and depends on the applicants' successful completion of the admission procedures outlined in the following paragraphs. All applicants should apply through the Office of the Registrar. In addition, they must submit a letter of intent and transcript to the Department of Journalism by March 1.
The letter of intent sent to the Department should be about 500 words and should describe the student's academic and work background and aspirations in journalism. Applicants must also contact the Department by March 1 to make an appointment for a test of English proficiency. Although it will not determine acceptance, applicants are advised that a working knowledge of French is important. A student must achieve a final mark of " $C$ " or better in the reporting workshops in order to proceed to the next level.
To graduate with a Major or Specialization in Journalism, a student must demonstrate a working knowledge of French. Tests of oral proficiency in French are administered by the Département d'études françaises on behalf of the Department of Journalism, which is responsible for the final evaluation of each student's competence.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
These programs are designed to prepare graduates for the English-language media. A limited number of students who have been admitted to the Major in Journalism program may be allowed to register in the Science College, with a view to combining a basic understanding of science with a training in journalism.

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60 BA Specialization in Journalism
    NOTE: This Specialization allows
    students the fullest range of journalism
    courses and is intended to prepare
    students to work in all forms of modern
    journalism.
    Stage I
15 JOUR 2003, 2016, 2033, 2053
    Stage II
15 JOUR 3023, 303 3},33\mp@subsup{0}{}{3},33\mp@subsup{6}{}{3},33\mp@subsup{9}{}{3
    JOUR 309 or 318
    3 JOUR 316 or 317 
    3 JOUR 332' or 463 
    Stage III
3 JOUR 400 % or 402 
12 JOUR 404 3},42\mp@subsup{1}{}{6},444\mp@subsup{4}{}{3
6 Chosen from JOUR 343', 4283, 4323,
    442 ', 446 3},4603,463 3
60 BA Specialization in Communication
    and Journalism
    NOTE: Students must meet the admission
    requirements of both the Departments of
    Communication Studies and Journalism.
    Stage I
15 JOUR 2003, 201' COMS 240', 256 3
3 COMS 278 or 282 
    Stages II & III
3 JOUR 203 ' or 205 
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JOUR $302^{3}$ or $303^{3}$
JOUR $316^{3}$ or $317^{3}$
JOUR $318^{3}$ or $319^{3}$
JOUR $332^{3}$ or $463^{3}$
COMS $378^{6}$ or $387^{6}$
Chosen from JOUR $400^{3}, 402^{3}, 404^{3}$
JOUR $444^{3}$
15 Chosen from Communication Clusters III and IV at the 300 or 400 level.

42 BA Major in Journalism
Stage 1
15 JOUR 200 ${ }^{3}, 201^{6}, 203^{3}, 205^{3}$
Print Option
Stage II
12 JOUR $302^{3}, 303^{3}, 309^{3}, 316^{3}$
3 JOUR $318^{3}$ or $319^{3}$
Stage III
3 JOUR $400^{3}$ or $402^{3}$
3 JOUR $444^{3}$
6 Chosen from JOUR $404^{3}, 428^{3}, 442^{3}$, $460^{3}, 463^{3}, 466^{3}$ Broadcast Option Stage II
15 JOUR $317^{3}, 330^{3}, 332^{3}, 336^{3}, 339^{3}$ Stage III
9 JOUR $421^{6}, 444^{3}$
3 Chosen from JOUR $343^{3}, 428^{3}, 432^{3}$, $442^{3}, 466^{3}$

Written work in writing and reporting workshop courses is in English; please consult the Department.
Courses
Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## JOUR 200 Introduction to Broadcasting (3 credits) <br> Prerequisite: Enrolment in a Journalism program. The aim of this orientation course is to instill a fundamental professional attitude before students enter into any production activity, while developing specific tactical broadcast methods that will be required in subsequent workshop courses. The course strategically explains the production methodology in various types of broadcast newsrooms and introduces students to the historical development of radio and television in Canada.

## JOUR 201 Writing and Reporting I

 $(6$ credits)Prerequisite: Enrolment in a Journalism program. This course gives training in basic reporting and news writing. Students practise writing news and receive out-of-classroom assignments.

## JOUR 202 Introduction to Computer Applications in Journalism (3 credits)

Prerequisite: JOUR 201 previously or concurrently. Students are introduced to the basics of computer-assisted reporting and desktop publishing.

JOUR 203 Introduction to Radio (3 credits) Prerequisite: JOUR 200. This course teaches students how to identify a radio news story, how
to use recording technology, how to become proficient in the fundamentals of radio editing, and how to research, develop, and write a story for radio.
NOTE: Students who have received credit for JOUR 306 may not take this course for credit.

## JOUR 205 History of Journalism

 (3 credits)This course traces the history of journalism from Gutenberg's invention of the press to the modern media conglomerates. Concentrating on developments in Canada, Britain, and America, it focuses on such interrelated issues as freedom of the press, government's relationship with the press, censorship and private control and concentration of the media.

## JOUR 210 The Media in Québec

 (3 credits)This course studies the special characteristics of Québec media, focusing particularly on the historical development of Québec journalism and the part it has played in the shaping of modern Québec. Particular attention is given to the influence of journalists in cultural and political affairs. The recent increasing concentration of media ownership is examined. Much of the reading material is in French.
NOTE: Students who have received credit for JOUR 305 may not take this course for credit.

JOUR 215 Contemporary News Media (3 credits) This course introduces students to the increasingly complex structures of modern media. It examines the organizations, practices, and problems of news media, focusing on key functions in their day-to-day activities. In any given year, it may explore in detail a particular development or problem in the news media.

## JOUR 298 Special Topics in Journalism (3 credits)

Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

JOUR 302 Reporting Methods (3 credits) Prerequisite: JOUR 201. This course builds solid foundations for a variety of journalistic assignments: feature writing, background and in-depth reporting, analyses, and investigative reporting. It is designed to help students understand and master a variety of information-gathering techniques, and overcome some of the hurdles confronting the contemporary journalist. It covers: information sources, interpretation and use of documents, access to information, and reporting and interviewing techniques to supplement official and conventional information sources.

JOUR 303 Feature Writing ( 3 credits)
Prerequisite: JOUR 201. This course is designed to help students develop and enhance their writing abilities, preparing for the broadest range of journalistic feature writing, from brief colour stories and profiles to in-depth articles. It consolidates interviewing techniques and introduces a variety of writing approaches. Students build the foundations for a full spectrum of print-oriented writing assignments, preparing for advanced reporting work and the demands of specialized journalism.
JOUR 309 Principles of Editing (3 credits)
Prerequisite: JOUR 201. Through lectures and workshops, students are introduced to the art of story editing. While the material used is designed primarily for print production, the techniques, and particularly the intellectual processes employed, are applicable to all media.
NOTE: Students who have received credit for JOUR 410 may not take this course for credit.

## JOUR 310 The Press and the Law (3 credits)

Prerequisite: JOUR 201, or permission of the director. Lectures cover those aspects of criminal and civil law which bear most directly on the work of professional journalists - libel, slander, contempt of court.
NOTE: Students who have received credit for JOUR 405 may not take this course for credit.

## JOUR 315 Ethics and Responsibility in

 Journalism (3 credits)Prerequisite: JOUR 201, or permission of the director. This course considers journalism in the context of philosophical and ethical principles. It aims to assess realistically the responsibilities of
reporting and news analysis and to examine critically the role of journalism in society.
NOTE: Students who have received credit for JOUR 446 may not take this course for credit.
JOUR 318 Publication Workshop (3 credits)
Prerequisite: JOUR 201. Students experiment, under supervision, with concepts and practical applications of computerized print media layout and design at an advanced level while creating publications in a variety of formats.
NOTE: Students who have received credit for JOUR 408 or for this topic under a JOUR 498 number may not take this course for credit.

## JOUR 319 Computer-Assisted Reporting

 (3 credits)Prerequisite: JOUR 201, or permission of the Department. Students develop advanced skills in computer-assisted reporting, working with a variety of software and data storage systems to research, analyse and publish their work. The goal is to equip students with the skills necessary to be successful journalists in the information age. NOTE: Students who have received credit for JOUR 419 or for this topic under a JOUR 498 number may not take this course for credit.
JOUR 330 Advanced Radio Journalism (3 credits)
Prerequisite: JOUR 203 and permission of the Department. This workshop concentrates on the production of daily news for live broadcast. Students function as reporters, assignment editors, and news readers. Critiques are given by the instructor and invited radio journalists.
NOTE: Students who have received credit for JOUR 430 may not take this course for credit.

## JOUR 336 Introduction to Television (3 credits)

Prerequisite: JOUR 203. This is a workshop course in the fundamentals of videography, where students learn the techniques of video recording and editing, as well as how to write effectively to complement images, and how to organize and perform field and post-production functions. NOTE: Students who have received credit for JOUR 415 may not take this course for credit.

## JOUR 343 Broadcast Public Affairs (3 credits)

Prerequisite: JOUR 201, or permission of the Department. This course focuses on the principles, practices, and issues in Canadian and American public affairs radio and television, with a comparative look at broadcasting around the world. NOTE: Students who have received credit for COMS 340, 342 or 343 may not take this course for credit.

## JOUR 398 Special Topics in Journalism

 (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.
JOUR 400 Advanced Reporting (3 credits)
Prerequisite: JOUR 302 or 303. Students are
introduced to several areas of specialist reporting including business and editorial writing, and to a variety of journalistic treatments.
NOTE: Students who have received credit for JOUR 401 may not take this course for credit.

JOUR 402 Specialist Reporting (3 credits) Prerequisite: JOUR 302 or 303 . Students cover a beat in the field of their choice for several weeks, producing news, features, and background stories. A term-end major background story is also produced. There are seminars and discussions, with leaders from the media on the specifics of beat coverage and on general media topics, such as trade unionism, ethics, and journalistic responsibility.

JOUR 404 Magazine Writing (3 credits) Prerequisite: JOUR 303. This is a workshop for students who intend to write in the burgeoning magazine field. Students develop and apply the techniques used in a variety of magazine formats, from the highly specialized to the general: news magazines, special interest, topical or industrial publications, expansive feature formats, and internal corporate publications. It is of particular interest to students wishing a freelance career.

## JOUR 420 Advanced Television Journalism (3 credits)

Prerequisite: JOUR 336 and permission of the Department. An advanced workshop in television journalism, working in the areas of news and current affairs programming. Emphasis on editorial control and journalistic treatment of subjects. Weekly critiques by professor and invited guests.

JOUR 428 On-line Magazine (3 credits) Prerequisite: JOUR 318 or 319. This course introduces students to the theory and practice of on-line publication methods. Students design, lay out, and edit an on-line publication. NOTE: Students who have received credit for this topic under a 498 number may not take this course for credit.

## JOUR 432 Broadcast Documentary Production (3 credits)

Prerequisite: JOUR 330 or 339 . This course is for students who wish to work creatively on longer form radio and television productions. Through assignments and class discussions, students learn the fundamentals of documentary production, including story development, researching, interviewing, editing, and production assembly.

JOUR 440 Seminar in Modern Journalism (3 credits)
Prerequisite: Third-year standing in a Journalism program. This course takes an intensive look at selected aspects of modern journalistic practice. The focus for this course may change from year to year.

## JOUR 442 International Journalism

 (3 credits)Prerequisite: Sixty credits or permission of the

Department. This course examines cross-cultural journalism practices as they pertain to both international news coverage and local reportage in a multicultural setting. The course asks students to apply basic theoretical concepts to concrete case studies of the news.

JOUR 450 Independent Study ( 3 credits)
Prerequisite: Enrolment in a Journalism program. Students who have demonstrated ability may, near the end of their program, be allowed to undertake independent study, in either research or production, in an area of special interest in Journalism. The study or project is done in close collaboration with one or more members of the faculty.

JOUR 451 Independent Study ( 3 credits) Prerequisite: Enrolment in a Journalism program. Students who have received credit for JOUR 450 may register for JOUR 451.

## JOUR 460 Technical Writing and Business Communication (3 credits)

Prerequisite: Sixty credits or permission of the Department. This is a writing workshop in which students learn a range of writing styles and modes used by freelance journalists in technical writing and business communication. Among other assignments, students learn how to build up a press kit, including press releases, backgrounders, and fact sheets.
NOTE: Students who have received credit for this topic under a JOUR 498 number may not take this course for credit.

JOUR 463 Literary Journalism (3 credits)
Prerequisite: Sixty credits or permission of the Department. This courses looks at the meeting places where journalism and literature converge by analysing the writings of representative Canadian, British, and American journalists through the years. Students learn to appreciate how literary styles and conventions contribute to, and enhance, journalistic practices.
NOTE: Students who have received credit for this topic under a JOUR 398 number may not take this course for credit.

JOUR 466 Photojournalism (3 credits) Prerequisite: Fifteen credits in Journalism. This is a workshop course in the fundamentals of photojournalism, where students learn how to apply the theory and aesthetics of news photography to telling stories through pictures. Using digital cameras and technology, students perform a variety of exercises and assignments to help them master the techniques used in planning, taking, and laying out news photographs. NOTE: Students who have received credit for this topic under a JOUR 398 number may not take this course for credit.

## JOUR 498 Advanced Special Topics in

 Journalism (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## $31200 \begin{aligned} & \text { mathematics and } \\ & \text { STATISTICS }\end{aligned}$

| Faculty | Chair <br> HERSHY KISILEVSKY, Professor | Professor of Mathematics and Computer Science JOHN McKAY |
| :---: | :---: | :---: |
|  | Professors <br> SYED T. ALI <br> ABRAHAM J. BOYARSKY <br> WILLIAM P. BYERS <br> YOGENDRA P. CHAUBEY <br> JOSÉ GARRIDO <br> PAWEL GORA <br> RICHARD L. HALL <br> JOHN HARNAD <br> JOEL HILLEL <br> HARALD W. PROPPE <br> ROBERT RAPHAEL <br> ANNA SIERPINSKA <br> TARIQ N. SRIVASTAVA <br> RONALD J. STERN <br> MANFRED E. SZABO <br> FRANCISCO THAINE-PRADA | Associate Professors <br> JOSEF BRODY <br> G. ELIE COHEN <br> CHRISTOPHER J. CUMMINS <br> CHANTAL DAVID <br> JAMES C. HAYES <br> ADRIAN IOVITA <br> ATTILA KEVICZKY <br> DMITRI KOROTKIN <br> Assistant Professors <br> MARCO BERTOLA <br> GALIA DAFNI <br> VINCENT GOULET <br> ARUSHARKA SEN <br> XIAOWEN ZHOU |
| Location | Loyola Campus Hingston Hall B, Room: HB 234 (514) 848-3232 | Sir George Williams Campus J.W. McConnell Building, Room: LB 525 (514) 848-3223 |

Department
Objectives

The Department of Mathematics and Statistics provides the general mathematical culture necessary for training those who will either be using the tools of mathematics or statistics in their work or who will become future mathematicians or statisticians. For students who are contemplating graduate work in mathematics or statistics, the Department has leading researchers in the fields of Actuarial Mathematics, Applied Probability, Computational Algebra, Differential Geometry, Dynamical Systems, Mathematical Physics, Mathematics Education, Number Theory and Statistics.
In addition to its co-op program, alternating Work and Academic terms, the Department offers a program in Actuarial Mathematics and prepares students for the associateship examinations of the Society of Actuaries and the Casualty Actuarial Society.
The Department also provides instruction at the remedial and introductory levels to enable students who have been out of school for some time to re-enter the academic stream; and offers special courses for teachers of mathematics who wish to keep abreast of recent ideas and applications.

Students are required to complete the appropriate entrance profile for entry into the program (see §31.002 - Programs and Admission Requirements - Profiles).
A student wishing to follow a program in the Department of Mathematics and Statistics but not meeting the entrance requirements should consult with one of the Department's academic advisers. By careful choice of electives, students can select whether the emphasis of the program will be in the area of Actuarial Mathematics, Pure and Applied Mathematics, or Statistics through Specialization/ Honours programs in the respective areas.
The enrolment in Specialization/Honours will be on a selective basis, whereas the Major will be open to all students. However, students with less than a $70 \%$ average in cégep Mathematics courses will be required to take a six-credit "transition" Calculus and Linear Algebra course (MAST 214) upon entry into the MATH/STAT Major. The course will not count for credits in the Major. Students in a Mathematics and Statistics program may not take any of the following courses for credit: EMAT 212, 232, 252, 271. Students wishing to take other Engineering Mathematics courses for credit must obtain prior approval of the Department.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

```
66 BA or BSc Honours in Actuarial
    Mathematics
27 MATH \(244^{3}, 245^{3}, 251^{3}, 252^{3}, 264^{3}\),
    \(265^{3}, 354^{3}\); STAT \(249^{3}, 250^{3}\)
30 ACTU \(256^{3}, 257^{3}, 357^{3}, 457^{3}, 458^{3}, 459^{3}\);
    STAT \(349^{3}, 360^{3}, 460^{3}, 461^{3}\)
3 Chosen from ACTU \(286^{1}, 386^{2}, 486^{2}\);
    MAST \(232^{3}, 332^{3}\); STAT \(287^{1}\), \(388^{2}\)
6 Honours project ACTU 493
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60 BA or BSc Specialization in Actuarial
Mathematics
27 MATH $244^{3}, 245^{3}, 251^{3}, 252^{3}, 264^{3}$,
$265^{3}, 354^{3}$; STAT $249^{3}, 250^{3}$
30 ACTU $256^{3}, 257^{3}, 357^{3}, 457^{3}, 458^{3}, 459^{3}$;
STAT $349^{3}, 360^{3}, 460^{3}, 461^{3}$
3 Chosen from ACTU 286 ${ }^{1}, 386^{2}, 486^{2}$;
MAST $232^{3}$, $332^{3}$; STAT $287^{1}$, $388^{2}$

84 BA or BSc Specialization in Actuarial Mathematics/Finance
27 MATH $244^{3}, 245^{3}, 251^{3}, 252^{3}, 264^{3}$, $265^{3}, 354^{3}$; STAT $249^{3}, 250^{3}$
24 ACTU $256^{3}, 257^{3}, 357^{3}, 457^{3}$; STAT $349^{3}, 360^{3}, 460^{3}, 461^{3}$
3 Chosen from ACTU 286 ${ }^{1}, 386^{2}, 486^{2}$; MAST $232^{3}, 332^{3}$; STAT $287^{1}, 388^{2}$
3 Chosen from ACTU $458^{3}, 459^{3}$
21 ECON 201 ${ }^{3}$, 203 ${ }^{3}$; COMM $220^{3}, 308^{3}$; ACCO $220^{3}$; FINA $380^{3}, 390^{3}$
6 Chosen from 400-level Finance courses
66 BA or BSc Honours in Pure and Applied Mathematics
30 MATH $244^{3}, 245^{3}, 251^{3}, 252^{3}, 264^{3}$, $265^{3}, 354^{3}, 361^{3}$; STAT $249^{3}, 250^{3}$
12 MATH $366^{3}, 369^{3}, 464^{3}, 467^{3}$
6 Chosen from MATH $470^{3}, 471^{3}, 474^{3}$, $475^{3}, 478^{3}, 479^{3}$; STAT $449^{3}, 452^{3}$
3 Chosen from MAST $232^{3}, 332^{3}$; STAT 287 ${ }^{1}$, $388^{2}$
9 MATH/STAT chosen with prior departmental approval
6 Honours project MATH 496
60 BA or BSc Specialization in Pure and Applied Mathematics
30 MATH $244^{3}, 245^{3}, 251^{3}, 252^{3}, 264^{3}$, $265^{3}, 354^{3}, 361^{3}$; STAT $249^{3}, 250^{3}$
12 MATH $366^{3}, 369^{3}, 464^{3}, 467^{\frac{3}{3}}$

6 Chosen from MATH $470^{3}, 471^{3}, 474^{3}$, $475^{3}, 478^{3}, 479^{3}$; STAT $449^{3}, 452^{3}$
3 Chosen from MAST $232^{3}, 332^{3}$;
STAT $287^{1}, 388^{2}$
9 MATH/STAT chosen with prior departmental approval

66 BA or BSc Honours in Statistics
30 MATH $244^{3}, 245^{3}, 251^{3}, 252^{3}, 264^{3}$, $265^{3}, 354^{3}, 361^{3}$; STAT $249^{3}, 250^{3}$
12 MATH $366^{3}$; STAT $349^{3}, 360^{3}, 450^{3}$
6 Chosen from MATH 464 ${ }^{3}, 467^{3}, 478^{3}$, $479^{3}$; STAT $449^{3}, 452^{3}, 460^{3}, 461^{3}, 480^{3}$
3 Chosen from MAST $232^{3}, 332^{3}$; STAT $287^{1}$, $388^{2}$
9 MATH/STAT chosen with prior departmental approval
6 Honours project STAT 499
60 BA or BSc Specialization in Statistics
30 MATH $244^{3}, 245^{3}, 251^{3}, 252^{3}, 264^{3}$, $265^{3}, 354^{3}, 361^{3}$; STAT $249^{3}, 250^{3}$
12 MATH $366^{3}$; STAT $349^{3}, 360^{3}, 450^{3}$
6 Chosen from MATH $464^{3}, 467^{3}, 478^{3}$, $479^{3}$; STAT $449^{3}, 452^{3}, 460^{3}, 461^{3}, 480^{3}$
3 Chosen from MAST $232^{3}, 332^{3}$; STAT $287^{1}, 388^{2}$
9 MATH/STAT chosen with prior departmental approval

42 BA or BSc Major in Mathematics and Statistics
36 COMP $248^{3}$; MAST $217^{3}$ or COMP $238^{3}$; MAST $218^{3}, 219^{3}, 221^{3}, 223^{3}, 224^{3}$, $232^{3}, 234^{3}, 235^{3}, 331^{3}, 332^{3}$
3 Chosen from MAST $333^{3}, 334^{3}, 335^{3}$, $397^{3}, 398^{3}$; MATH $370^{3}$
3 Chosen with prior departmental approval*
*NOTE: This category may also include any other courses in the ACTU/MATH/STAT discipline, with proper prerequisites.

## 4 Minor in Mathematics and Statistics

18 MAST $217^{3}, 218^{3}, 219^{3}, 221^{3}, 223^{3}, 224^{3}$
6 MATH/STAT chosen with prior departmental approval from MAST $234^{3}$, $235^{3}, 330^{3}, 331^{3}, 332^{3}, 333^{3}, 334^{3}, 335^{3}$, $397^{3}, 398^{3}$

## MATHEMATICS AND STATISTICS CO-OPERATIVE PROGRAM

Mathematics and
Statistics
Co-operative
Program

Director
MANFRED E. SZABO, Professor
The Mathematics and Statistics Co-operative program is offered to students who are enrolled in the BA or BSc Honours or Specialization programs. Students interested in applying for the Mathematics and Statistics co-op should refer to §24 where a full description of the admission requirements is provided.
Academic content is identical to that of the regular program, but six Study terms are interspersed with four Work terms.

Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.
Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Mathematics and Statistics co-op committee, which includes the student's advisers.
Please refer to $\S 24$ for the schedule of Study and Work terms and the full description of admission requirements.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## Actuarial Mathematics

## ACTU 256 Mathematics of Finance

## (3 credits)

Prerequisite: MATH 264 previously or concurrently; and permission of the Department. Measurement of interest; annuities and perpetuities; amortization and sinking funds; rates of return; bonds and related securities; life insurance.
NOTE: Students who have received credit for MATH 326 may not take this course for credit. NOTE: Only three credits will be awarded from ACTU 256; MAST 335.

## ACTU 257 Actuarial Mathematics I (3 credits)

Prerequisite: ACTU 256. Measurement of mortality; survival function, mortality tables, force of mortality; special topics.
NOTE: Students who have received credit for MATH 327 may not take this course for credit.

## ACTU 286 Actuarial Mathematics Lab I

 (1 credit)This lab will feature problem-solving sessions for the Mathematical Foundations of Actuarial Science examination of the Society of Actuaries and the Casualty Actuarial Society.
NOTE: Students who have received credit for MATH 229 may not take this course for credit.

## ACTU 357 Actuarial Mathematics II (3 credits)

Prerequisite: ACTU 257. Life annuities; pure endowments, annual payments, continuous annuities, net annual premium, net level premium reserves; the expense factor; special topics. NOTE: Students who have received credit for MATH 427 may not take this course for credit.

## ACTU 386 Actuarial Mathematics Lab II (2 credits)

This lab will feature the use of programming languages and software applications.
NOTE: Students who have received credit for MATH 232 may not take this course for credit.

## ACTU 456 Pension Mathematics

 (3 credits)Prerequisite: ACTU 357. Valuation methods; gains and losses; dynamic control; special topics.

ACTU 457 Risk Theory (3 credits)
Prerequisite: ACTU 257. Applications of contingency theory in life and health insurance,
annuities and pension; individual risk theory, ruin theory.
NOTE: Students who have received credit for MATH 428 may not take this course for credit.

ACTU 458 Credibility Theory (3 credits) Prerequisite: ACTU 457; STAT 349 previously or concurrently. Credibility approach to inference for heterogeneous data; classical, regression and Bayesian models; illustrations with insurance data.

ACTU 459 Loss Distributions (3 credits) Prerequisite: ACTU 457; STAT 360. Probability model fitting to loss data; estimation and testing under variety of procedures and sampling designs.

## ACTU 486 Actuarial Mathematics Lab III

 (2 credits)This lab will be a workshop designed to prepare students for the Actuarial Models examination of the Society of Actuaries and the Casualty Actuarial Society.
NOTE: Students who have received credit for MATH 429 may not take this course for credit.

## ACTU 491 Topics in Actuarial Mathematics (3 credits)

ACTU 492 Reading Course in Actuarial Mathematics (3 credits)

ACTU 493 Honours Project in Actuarial Mathematics ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## Mathematics and Statistics

## MAST 214 Calculus and Linear Algebra

 (6 credits)Prerequisite: Cégep Mathematics 105 or 201-NYC, 203 or 201-NYB. Functions; maxima and minima. Velocity and acceleration. Iterative solution of equations, parametric equation of curves. Integrals; change of variables, integration by parts, double integrals, numerical integration. Conic sections. Matrices, determinants, eigenvalues, eigenvectors, system of equations. Series and their convergence. Introduction to vector space and complex numbers. Word problems. NOTE: This course can be counted as an elec-
tive towards a 90 -credit degree program. It must be taken, upon entry, by newly admitted students in the MATH/STAT Major who have less than $70 \%$ average in cégep Mathematics courses.

## MAST 217 Introduction to Mathematical

 Thinking (3 credits)This course aims to foster analytical thinking through a problem-solving approach. Topics include construction of proofs, number systems, ordinality and cardinality, role of examples and counter examples, role of generalizations and specializations; role of symbols, notations and definitions; styles of mathematical discourse.
NOTE: Students who have received credit for MASZ 217 or MATH 216 may not take this course for credit.
NOTE: Only three credits will be awarded from MAST 217; COMP 238.
NOTE: This course cannot be taken for credit by students in the Specialization/Honours stream. NOTE: Students with more than 12 credits in post-cégep Mathematics may not take this course for credit.

## MAST 218 Multivariable Calculus I

> (3 credits)

Prerequisite: Cégep Mathematics 105 or 201-NYC, 203 or 201-NYB or equivalent. Vector geometry; lines and planes; curves in $\mathrm{R}^{\text {n }}$; vector functions; vector differential calculus; extrema and Lagrange multipliers. Introduction to multiple integrals and coordinate transformations. Problem solving with MAPLE.
NOTE: Students who have received credit for MATH 262 may not take this course for credit. NOTE: Only three credits will be awarded from MAST 218; MATH 264.

## MAST 219 Multivariable Calculus II (3 credits)

Prerequisite: MAST 218 or equivalent. Vector integral calculus; line and surface integrals; Green's, Stokes' and Gauss' theorems; coordinate transformations and Jacobians. Power series, applications. Problem solving with MAPLE. NOTE: Students who have received credit for MATH 263 may not take this course for credit. NOTE: Only three credits will be awarded from MAST 219; MATH 265.

MAST 221 Applied Probability (3 credits) Prerequisite: Cégep Mathematics 105 or 201-NYC, 203 or 201-NYB or equivalent. Counting rules, discrete probability distributions; random sampling; conditional probability; means and variances, normal and other continuous sampling distributions. Applications. Use of MINITAB and/or SYSTAT.
NOTE: Students who have received credit for MATH 242 may not take this course for credit.

## MAST 223 Introduction to Stochastic Methods of Operations <br> Research (3 credits)

Prerequisite: MAST 221 or equivalent. Markov
chains; queuing theory; inventory theory; Markov decision processes; applications to reliablity.
NOTE: Students who have received credit for MATH 337 may not take this course for credit.

## MAST 224 Introduction to Optimization

 (3 credits)Prerequisite: Cégep Mathematics 105 or 201-NYC, 203 or 201-NYB or equivalent. Introduction to the theory of optimization; linear programming; the simplex method; duality and transportation problem. Introduction to graphs and networks; applications. Use of computing softwares.
NOTE: Students who have received credit for MATH 231 may not take this course for credit.

MAST 232 Mathematics with Computer Algebra (3 credits)
Prerequisite: Cégep Mathematics 105 or 201-NYC, 203 or 201-NYB or equivalent. An introduction to the use of a high-level mathematical programming language (MAPLE or MATHEMATICA) as a practical aid in doing mathematics. Most classes are given in an interactive way in the computer laboratory. The emphasis is on applications, not on general programming techniques or abstract structures. The aim is to arrive at a sufficient working familiarity with the computer algebra language to permit its regular use in subsequent studies and applications. The commands and online resources are introduced through a review of arithmetic, complex numbers, algebra, Euclidean geometry, trigonometry, coordinate systems and graphing, elementary functions and transformations, series, derivatives, integrals, vectors and matrices. There may be additional topics from domains such as number theory, differential equations, integral transforms, probability and statistics.
NOTE: Students who have received credit for this topic under an MAST 397 number may not take this course for credit.

## MAST 234 Linear Algebra and

Applications I (3 credits)
Prerequisite: Cégep Mathematics 105 or 201-NYC or equivalent; MAST 217 previously or concurrently. System of linear equations, matrix operations, echelon forms and LU-factorization; $\mathrm{R}^{n}$ : subspaces, linear dependence, basis, dimension, matrix transformations; eigenvalues and eigenvectors in $R^{n}$ and applications (e.g. Markov chains, dynamical systems). The software MAPLE will be extensively used.
NOTE: Students who have received credit for MATH 251, 282 or ECON 325 may not take this course for credit.
NOTE: Only three credits will be awarded from MAST 234; MATH 251.

## MAST 235 Linear Algebra and <br> Applications II (3 credits)

Prerequisite: MAST 234 or equivalent. R":
Orthogonality, projections, Gram-Schmidt
method and QR-factorization; applications to least square methods (data fitting, inconsistent systems). Symmetric matrices, principal axes theorem and applications. Special topics (e.g. coding theory, differential equations, error analysis). The software MAPLE will be extensively used.
NOTE: Students who have received credit for MATH 252 or 283 may not take this course for credit.
NOTE: Only three credits will be awarded from MAST 235; MATH 252.

## MAST 330 Differential Equations

(3 credits)
Prerequisite: MAST 218 or equivalent. First order differential equations; second order differential equations; Laplace transform methods; mathematical models and numerical methods. NOTE: Students who have received credit for MATH 271 may not take this course for credit.

## MAST 331 Mathematical Modelling

 (3 credits)Prerequisite: MAST 221, 224 previously or concurrently, 234, 330 or equivalent. Introduction to mathematical modelling; predator-prey models in biology, game theory, decision analysis, stability theory; modelling electric circuits.

## MAST 332 Techniques in Symbolic Computation (3 credits)

Prerequisite: MAST 217 or COMP 238 or equivalent; COMP 248 or equivalent. This course is an application-oriented introduction to symbolic computation, as it applies to algebra, number theory and combinatorics covering the following topics: capabilities of symbolic systems (e.g. MAPLE), modular methods, arithmetic mod $p$, arithmetic $\bmod m$, matrices mod $p$, Chinese remainder theorem, polynomial factorization mod p. Applications to coding theory and cryptography. Combinatorial algorithms.
NOTE: Students who have received credit for MATH 232 or COMP 367 or 467 may not take this course for credit.

MAST 333 Applied Statistics (3 credits) Prerequisite: MAST 221 or equivalent. Graphical and numerical descriptive methods; Estimation and hypothesis testing; linear regression and correlation; one way ANOVA; contingency and goodness of fit tests. Use of statistical software, e.g. MINITAB or SYSTAT.

NOTE: Students who have received credit for MATH 243 may not take this course for credit.

MAST 334 Numerical Analysis (3 credits) Prerequisite: MAST 218 or equivalent; MAST 235 previously or concurrently; MAST 332 or equivalent. Introduction to computing softwares; numerical solution of non-linear equations; interpolations and approximations; quadrature and numerical integration.
NOTE: Students who have received credit for MATH 311 may not take this course for credit.

## MAST 335 Investment Mathematics

 (3 credits)Prerequisite: MAST 218 or equivalent. Simple and compound interest; annuities; amortization and sinking funds; mortgage schemes; bonds and related securities; capital cost and depletion; spread-sheet implementation.
NOTE: Students who have received credit for MATH 326 may not take this course for credit. NOTE: Only three credits will be awarded from MAST 335; ACTU 256.

## MAST 397 Topics in Mathematics and Statistics (3 credits)

## MAST 398 Reading Course in Mathematics and Statistics (3 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## Mathematics

## MATH 200 Fundamental Concepts of Algebra (3 credits)

This course is designed to give students the background necessary for MATH 201. Some previous exposure to algebra is assumed. Sets, algebraic techniques, inequalities, graphs of equations.
NOTE: Students who have received credit or exemption for a course at the level of MATH 201 or above may not take this course for credit. NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

## MATH 201 Elementary Functions

(3 credits)
Sets, inequalities, graphs of functions, and relations. Trigonometric, exponential, and logarithmic functions. Lectures and laboratory. NOTE: Students who have received credit or exemption for MATH 203 or equivalent, or for a course having MATH 203 or equivalent in its sequence of prerequisites, may not take this course for credit.
NOTE: Students in programs leading to the BSC degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 202 College Algebra (3 credits) Prerequisite: MATH 201 or equivalent. Progressions, combinations, permutations, binomial theorem, mathematical induction, inequalities, polynomials, cartesian and polar forms of complex numbers, conics. NOTE: Students in programs leading to the BSC degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

## MATH 203 Differential and Integral Calculus I (3 credits)

Prerequisite: MATH 201 or equivalent. Functional notation. Differentiation of polynomials. The power, product, quotient, and chain rules. Differentiation of elementary functions. Implicit differentiation. Higher derivatives. Maxima and minima. Applications: tangents to plane curves, graphing, related rates. Approximations using the differential. Antiderivatives, definite integrals, area. Lectures and laboratory.
NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 204 Vectors and Matrices (3 credits)
Prerequisite: MATH 201 or equivalent. Algebra and geometry of vectors, dot and cross products, lines and planes. System of equations, operations on matrices, rank, inverse, quadratic form, and rotation of axes.
NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

## MATH 205 Differential and Integral Calculus II (3 credits)

Prerequisite: MATH 203. Techniques of integration: substitutions, integration by parts, partial fractions. Improper integrals. Physical applications of the definite integral. Infinite series: tests for convergence. Power series, Taylor's theorem. Lectures and laboratory. NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

## MATH 206 Algebra and Functions (3 credits)

Coordinate systems. Radicals and distance formula. Polynomials, factoring, and graphing. Relations and functions. Linear and quadratic functions, equations, and systems. Exponents, exponential and logarithmic functions and equations.
NOTE: Students who have received credit or exemption for a course at the level of MATH 201 or above may not take this course for credit. NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

## MATH 208 Fundamental Mathematics I

 (3 credits)Prerequisite: MATH 206 or equivalent. This course is a prerequisite course for Commerce and Administration students*. Matrices, Gaussian elimination, input-output analysis, progressions, compound interest, annuities, permutations and combinations, probability, binomial theorem, exponential and logarithmic
functions, inequalities, linear programming.
*NOTE: See §14.4.2 (Mature Entry) and 61.20 (Extended Credit).
NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

## MATH 209 Fundamental Mathematics II

 (3 credits)Prerequisite: MATH 206 or equivalent. This course is a prerequisite course for Commerce and Administration students*. Limits; differentiation of rational, exponential, and logarithmic functions; theory of maxima and minima; integration.
*NOTE: See §14.4.2 (Mature Entry) and 61.20 (Extended Credit).
NOTE: Students who have received credit or exemption for MATH 203 or equivalent may not take this course for credit.
NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

## MATH 215 Great Ideas in Mathematics

 (3 credits)Mathematics is used to unravel the secrets of nature. This course introduces students to the world of mathematical ideas and mathematical thinking. Without being overly technical, that is, without requiring any formal background from the student other than high school mathematics, the course delves into some of the great ideas of mathematics. The topics discussed range from the geometric results of the Ancient Greeks to the notion of infinity to more modern developments.
NOTE: This course is designed as a suitable elective for students following an undergraduate program. It has no formal prerequisites and will not qualify students to enrol for any other Mathematics course, and cannot be used to satisty a Mathematics requirement in any BSc or BA program.
NOTE: Students who have received credit for INTE 215 or MATZ 215 may not take this course for credit.

## MATH 220 Mathematical Methods in Chemistry ( 3 credits)

Prerequisite: Cégep Mathematics 203 or 201-NYB or MATH 205. Partial derivatives. First-order differential equations (first- and second-order chemical reactions). Hermite, Laguerre, and Legendre equations. Solutions by power series. Eigenfunctions and eigenvalues, Sturm-Liouville theory.

MATH 244 Analysis I (3 credits) Prerequisite: Cégep Mathematics 105 or 201-NYC, 203 or 201-NYB or equivalent. Mathematical rigour: proofs and counterexamples; quantifiers; number systems; Cardinality, decimal representation, density
of the rationals, least upper bound. Sequences and series; review of functions, limits and continuity.
NOTE: Students who have received credit for MATH 362 may not take this course for credit.

MATH 245 Analysis II (3 credits)
Prerequisite: MATH 244 or equivalent. Connectedness and compactness in the reals. Intermediate value theorem; extreme values for continuous functions. Differential and integral calculus; fundamental theorem of calculus; power series.
NOTE: Students who have received credit for MATH 363 may not take this course for credit.

MATH 251 Linear Algebra I (3 credits) Prerequisite: Cégep Mathematics 105 or 201-NYC, 203 or 201-NYB or equivalent. Matrices and linear equations; vector spaces; bases, dimension and rank; linear mappings and algebra of linear operators; matrix representation of linear operators; determinants; eigenvalues and eigenvectors; diagonalization. NOTE: Students who have received credit for MAST 234, MATH 282 or ECON 325 may not take this course for credit.
NOTE: Only three credits will be awarded from MATH 251; MAST 234.

MATH 252 Linear Algebra II (3 credits)
Prerequisite: MATH 251 or equivalent. Characteristic and minimum polynomials; invariant subspaces, invariant direct sums; nilpotent operators, Jordan canonical form; cyclic subspaces; rational canonical form; bilinear and quadratic forms; inner product; orthogonality; adjoint operators and orthogonal operators.
NOTE: Students who have received credit for MAST 235 or MATH 283 may not take this course for credit.
NOTE: Only three credits will be awarded from MATH 252; MAST 235.

MATH 264 Advanced Calculus I (3 credits) Prerequisite: Cégep Mathematics 105 or 201-NYC, 203 or 201-NYB or equivalent. Introduction to limits and continuity in $\mathrm{R}^{n}$. Multivariate calculus: the derivative as a linear approximation; matrix representation of derivatives; tangent spaces; gradients, extrema, including Lagrange multipliers, Taylor's formula and the classification of critical points.
NOTE: Students who have received credit for MATH 262 or 344 may not take this course for credit.
NOTE: Only three credits will be awarded from MATH 264; MAST 218.

MATH 265 Advanced Calculus II (3 credits)
Prerequisite: MATH 264 or equivalent. Implicit functions and the implicit function theorem. Multiple integrals and change of variables. Curves, surfaces and vector calculus.
NOTE: Students who have received credit for

MATH 263 or 345 may not take this course for credit.
NOTE: Only three credits will be awarded from MATH 265; MAST 219.

## MATH 334 Combinatorics (3 credits)

Prerequisite: Eighteen credits in post-cégep Mathematics. General principle of counting, permutations, combinations, identities, generating functions; Fibonacci numbers; partitions, recurrence relations, Stirling numbers, Catalan numbers, principle of inclusion-exclusion, cycles of a permutation, orbits of permutation groups, parity of a permutation, Polya's theorem.

MATH 352 Linear Algebra III (3 credits)
Prerequisite: MATH 252. Matrices, linear transformations, determinants, metric concepts, inner-product spaces, dual spaces, spectral theorem, bilinear and quadratic forms, canonical forms for linear transformation, matrix functions, selected topics.
NOTE: Students who have received credit for MATH 381 may not take this course for credit.

MATH 354 Numerical Analysis (3 credits) Prerequisite: MATH 245; MATH 387 or equivalent, previously or concurrently. Error analysis in numerical algorithms; solution of non-linear equations; fixed point iterations, rate of convergence. Interpolations and approximations, Legendre polynomials. Numerical integration and quadrature.
NOTE: Students who have received credit for MATH 311 may not take this course for credit.

## MATH 361 Operations Research I

 (3 credits)Prerequisite: MATH 251 or equivalent. Introduction to the theory of optimization; linear programming, simplex method; revised simplex method; transport and assignment problems; integer programming; introduction to graphs and networks.
NOTE: Students who have received credit for MATH 231 may not take this course for credit.

MATH 366 Complex Analysis I (3 credits) Prerequisite: MATH 264 or equivalent. Algebra and geometry of complex numbers, linear transformations, analytic functions, Laurent's series, calculus of residues, special functions.

MATH 369 Abstract Algebra I (3 credits)
Prerequisite: Twelve credits in post-cégep Mathematics or permission of the Department. Introduction to the ring of integers and the integers modulo N. Groups: definitions and examples; subgroups, quotients and homomorphisms (including Lagrange's theorem, Cayley's theorem and the isomorphism theorems). Introduction to the Cauchy and Sylow theorems and applications.
NOTE: Students who have received credit for MATH 393 may not take this course for credit.

## MATH 370 Ordinary Differential Equations

 (3 credits)Prerequisite: MATH 245, 252, or equivalent. Separable equations, exact equations, integrating factors, force fields, first order linear equations, input-output concept, second order equations, Sturm-Liouville problems, applications, series solutions, reduction of order, variation of parameters, nth-order linear equations with constant coefficients, Laplace transforms, block diagrams, and signal-flow graphs.
NOTE: Students who have received credit for MATH 271 or MAST 330 may not take this course for credit.

## MATH 371 Partial Differential Equations

 (3 credits)Prerequisite: MATH 370 or equivalent. Canonical forms for second order linear equations with constant coefficients, classification of linear second order equations, method of separation of variables, first order PDE's, method of characteristics. Non-linear first order equations, complete integrals, Cauchy conditions, Cauchy-Kowalewski theorem, Fourier and Laplace transforms, Green's functions, integral representations, introduction to non-linear PDE's.

MATH 380 Differential Geometry (3 credits) Prerequisite: MATH 245, 252, 370. Calculus on Euclidian spaces, tangent vectors, directional derivatives, differential forms, mappings, curves, frame fields, Serret-Frenet formulae, covariant derivatives; calculus on a surface, tangent spaces, differential forms on a surface, mappings between surfaces, integration of forms, Stokes' theorem.

MATH 387 Mathematics Lab III (2 credits) This lab will demonstrate the use of MAPLE software for Calculus, Linear Algebra, and Statistics
NOTE: Students who have received credit for MATH 232 may not take this course for credit.

MATH 392 Elementary Number Theory (3 credits)
Prerequisite: Eighteen credits in post-cégep Mathematics. Number systems, division and factorization, number-theoretic functions, congruences, algebraic congruences and primitive roots, quadratic residues, diophantine equations.

## MATH 397 History of Mathematics

 (3 credits)Prerequisite: MATH 245; MATH 252, or permission of the Department. Early mathematics, Greek mathematics, European mathematics in the Middle Ages, the origin and development of analytic geometry and calculus, mathematics as free creation, the generality of mathematics in the twentieth century.

MATH 433 Calculus of Variations (3 credits)
Prerequisite: MATH 245, 265, 370 or equivalent.

Nature of problems, weak variations, the first variation, Euler's equation. The second variation, Jacobi's equation, Legendre's test, conjugate points. Relative maxima and minima, iso-perimetrical problems. Integrals with variable end points. Applications to problems in pure and applied mathematics; the principle of least action. Strong variations, the Weierstrass E-function.

MATH 464 Real Analysis (3 credits) Prerequisite: MATH 245, 265 or equivalent. Metric spaces; function spaces; compactness, completeness, fixed-point theorems, Ascoli-Arzela theorem, Weierstrass approximation theorem.

MATH 466 Complex Analysis II (3 credits) Prerequisite: MATH 245, 265, 366 or equivalent. Cauchy's theorem, singularities, maximum modulus principle, uniqueness theorem, normal families, Riemann mapping theorem.

MATH 467 Measure Theory ( 3 credits) Prerequisite: MATH 245, 265 and 464 previously or concurrently, or equivalent. Lebesque measure and integration on the real line, convergence theorems, absolute continuity, completeness of $\mathrm{L}^{2}[0,1]$.

MATH 470 Abstract Algebra II (3 credits) Prerequisite: MATH 369 or equivalent. Group action and proof of the Sylow theorems. Introduction to rings, ideals, euclidean domains, principal ideal domains and unique factorization domains; polynomial rings.
NOTE: Students who have received credit for MATH 394 may not take this course for credit.

MATH 471 Abstract Algebra III (3 credits) Prerequisite: MATH 470 or equivalent. Rings and modules; structure theorem of modules over principal ideal domains. Noetherian rings and modules (including Hilbert basis theorem for rings and modules). Hilbert's Nullstellensatz. NOTE: Students who have received credit for MATH 491 may not take this course for credit.

MATH 472 Abstract Algebra IV (3 credits) Prerequisite: MATH 470 or equivalent. Elements of field and Galois theory, including straight-edge-and-compass construction and unsolvability of equations of fifth degree by radicals. NOTE: Students who have received credit for MATH 492 may not take this course for credit.

## MATH $474 \quad$ Linear and Non-Linear

 Dynamical Systems (3 credits)Prerequisite: MATH 245, 265 or equivalent, or permission of the Department. Systems of linear differential equations; fundamental matrices; non-homogeneous linear systems; non-linear systems; solutions and trajectories; the phase plane; stability concepts; Liapounov's second method; periodic solutions and limit cycles; introduction to boundary-value problems and Sturm-Liouville theory.
NOTE: Students who have received credit for MATH 373 may not take this course for credit.

## MATH 475 Discrete Dynamical Systems,

Chaos and Fractals (3 credits)
Prerequisite: MATH 245, 265 or equivalent, or permission of the Department. Introduction to discrete dynamical modelling; periodic points; bifurcation; period three points; symbolic dynamics; chaos; transitivity; conjugacy; complex behaviour; introduction to fractals; computer simulations.
NOTE: Students who have received credit for MATH 379 may not take this course for credit.

MATH 478 Non-Linear Programming (3 credits)
Prerequisite: MATH 361 or permission of the Department. Classical methods of optimization, Lagrange multipliers, Kuhn-Tucker conditions; line search methods, quadratic programming, gradient methods, introduction to dynamic programming.
NOTE: Students who have received credit for MATH 436 may not take this course for credit.

## MATH 479 Convex and Non-Linear Analysis (3 credits)

Prerequisite: MATH 361 or permission of the Department. Support and separation of convex sets, extreme point characterizations, convex and dual cones, Farkas' theorem; minimax theorem of Game Theory, Legendre-Fenchel conjugate, infimal convolution, subgradient calculus; Lagarngians, necessary and sufficient conditions for optimality in constrained minimization; the dual problem.

| MATH 494 | Topics in Pure and Applied <br> Mathematics (3 credits) |
| :---: | :--- |
| MATH 495 | Reading Course in Pure and <br> Applied Mathematics (3 credits) |
| MATH 496 | Honours Project in Pure and <br> Applied Mathematics ( 6 credits) |

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## Statistics

STAT 249 Probability I (3 credits)
Prerequisite: Cégep Mathematics 105 or 201-NYC, 203 or 201-NYB or equivalent. Axiomatic approach to probability; combinatorial probability; discrete and continuous distributions; expectation; conditional expectation; random sampling and sampling distributions.
NOTE: Students who have received credit for MATH 242 may not take this course for credit.

## STAT 250 Statistics (3 credits)

Prerequisite: STAT 249 or equivalent. Point and interval estimation; hypothesis testing; Neyman Pearson Lemma and likelihood ratio tests; introduction to correlation and regression. NOTE: Students who have received credit for MATH 243 may not take this course for credit.

STAT 287 Statistics Lab I (1 credit)
This lab will be associated with courses STAT 249 and 250 and will be helpful for the Probability portion of the Mathematical Foundations of Actuarial Science examination of the Society of Actuaries and the Casualty Actuarial Society.
NOTE: Students who have received credit for MATH 329 may not take this course for credit.

STAT 342 Industrial Statistics (3 credits)
Prerequisite: STAT 250 or MAST 333. Concepts of statistical quality control; X-bar, R, P, and C control charts, acceptance sampling, sampling inspection, continuous sampling plans.
NOTE: Students who have received credit for MATH 342 may not take this course for credit.

## STAT 343 Sample Survey Theory and Applications (3 credits)

Prerequisite: STAT 250 or MAST 333. Basic sampling designs and estimators; simple random sampling, stratified, cluster and systematic sampling. Sampling with unequal probabilities; ratio and regression methods of estimation. NOTE: Students who have received credit for MATH 343 may not take this course for credit.

## STAT 347 Introduction to Non-Parametric Statistics (3 credits)

Prerequisite: STAT 250 or MAST 333. Theory of rank tests, sign test, Mann-Whitney and Wilcoxon one-sample and two-sample tests, Kruskal-Wallis test, goodness of fit tests, Kolmogorov-Smirnov test, Pearson chi-square test, rank correlation and Kendall's tau.
NOTE: Students who have received credit for MATH 347 may not take this course for credit.

STAT 349 Probability II (3 credits)
Prerequisite: STAT 249 or equivalent. Markov decision process and applications. Poisson process, queuing theory, inventory theory; applications.
NOTE: Students who have received credit for MATH 337 and/or MATH 351 may not take this course for credit.

STAT 360 Linear Models (3 credits)
Prerequisite: STAT 250 or equivalent. Leastsquares estimators and their properties. General linear model with full rank. Analysis of residuals; adequacy of model, lack of fit test, weighted least squares; stepwise regression, Durbin-Watson statistic; one way and two way analysis of variance.
NOTE: Students who have received credit for MATH 348 may not take this course for credit.

STAT 388 Statistics Lab II (2 credits) This lab will use various softwares such as SYSTAT, SAS, SPLUS, MINITAB for data analysis.
NOTE: Students who have received credit for MATH 232 may not take this course for credit.

## STAT 449 Advanced Probability

 (3 credits)Prerequisite: STAT 249 or permission of the Department. Central limit theorems and law of large numbers, convergence of random variables, characteristic function, moment generating function, probability generating functions, random walk and reflection principle. NOTE: Students who have received credit for MATH 451 may not take this course for credit.

## STAT 450 Mathematical Statistics

 (3 credits)Prerequisite: STAT 250; 449 previously or concurrently. Derivation of standard sampling distributions; distribution of order-statistics; estimation, properties of estimators; Rao-Cramer inequality, Rao-Blackwell theorem, maximum likelihood and method of moments estimation, Neyman-Pearson theory, likelihood ratio tests and their properties.
NOTE: Students who have received credit for MATH 454 may not take this course for credit.

## STAT 452 Intoduction to Stochastic

 Processes (3 credits)Prerequisite: STAT 349; 449 previously or concurrently. Continuous stochastic processes. Poisson processes, continuous time Markov process, queuing models, birth and death processes, renewal theory.
NOTE: Students who have received credit for MATH 353 may not take this course for credit.

STAT 460 Time Series and Forecasting (3 credits)
Prerequisite: STAT 360. Time series, forecasting by trend and irregular components (using multiple regression analysis and exponential smoothing); forecasting seasonal time series, additive and multiplicative decomposition methods, Box-Jenkins methodology, moving average, autoregressive and mixed models. NOTE: Students who have received credit for MATH 443 may not take this course for credit.

## STAT 461 Operations Research II

 (3 credits)Prerequisite: STAT 349. Simulation and Monte-Carlo techniques; selected topics in operations research.
NOTE: Students who have received credit for MATH 437 may not take this course for credit.

## STAT 465 Multivariate Statistics (3 credits)

Prerequisite: MATH 252; STAT 360 or equivalent. Multivariate normal distribution; estimation and testing of hypothesis about mean vector; multiple and partial correlation; MANOVA; principal components analysis.

## STAT 468 Design of Experiments

 (3 credits)Prerequisite: STAT 360. Construction and analysis of standard designs, including balanced designs; block designs; orthogonal designs; response surface designs.

## STAT 480 Statistical Data Analysis

 (3 credits)Prerequisite: STAT 460 or permission of the Department. The analysis of real life data sets using computer packages. Topics will involve techniques from generalized linear models; model selection; log-linear models for categorical data analysis; logistic regression; censored survival models.
NOTE: Students who have received credit for MATH 445 may not take this course for credit.

STAT 497 Topics in Statistics (3 credits)
STAT 498 Reading Course in Statistics (3 credits)

STAT 499 Honours Project in Statistics ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.220 <br> <br> PHILOSOPHY 

 <br> <br> PHILOSOPHY}

| Faculty | Chair <br> ANDREW WAYNE, Associate Professor | DENNIS O'CONNOR JACK ORNSTEIN VLADIMIR ZEMAN |
| :---: | :---: | :---: |
|  | Professors |  |
|  | STANLEY G. FRENCH | Assistant Professor |
|  | CHRISTOPHER B. GRAY | MATTHIAS FRITSCH |
|  | Associate Professors MURRAY CLARKE SHEILA MASON | Adjunct Professor KAI NIELSEN |
| Location | Sir George Williams Campus Annex PR, Room: 202 (514) 848-2500 |  |
| Department <br> Objectives | The central mission of the Department is to contribute to the development of a critical, informed, and open mind. Classes and scholarship within the Department concentrate on and extend beyond the principal philosophical traditions that have influenced Western thought. <br> Undergraduate courses provide a sound general education while encouraging students to follow related interests such as political science, mathematics, or medicine. Honours programs prepare students for graduate studies. |  |

Programs
(hilosophy Department offers a number of programs of study which include: Honours, Major, and Minor. Double Major programs are also offered in consultation with other departments. The Philosophy Department should be consulted for information concerning these programs. Seminars and tutorials are offered mainly for students in a program in Philosophy. In addition, courses are offered to students with a general or specific interest in Philosophy.
Students enrolled in Philosophy programs are required to confirm their status with the Department during the second week of lectures of each year.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

## 60 BA Honours in Philosophy Stage I

18 PHIL $214^{3}, 232^{3}, 260^{3}, 261^{3}, 263^{3}, 265^{3}$ Stage II
6 PHIL $360^{3}, 361^{3}$
6 PHIL elective credits
12 PHIL elective or cognate credits at the 300 or 400 level* Stage III
9 PHIL $430^{3}, 463^{3}, 465^{3}$
9 PHIL elective or cognate credits at the 400 level*
*PHIL elective or cognate credits to be chosen in consultation with the Department.
NOTE: Students must apply to the departmental Honours adviser for formal admission to Honours programs. The application is usually made after completion of the first 30 credits.

36 BA Major in Philosophy Stage 1
15 PHIL $232^{3}, 260^{3}, 261^{3}, 263^{3}, 265^{3}$ Stage II
6 PHIL $360^{3}, 361^{3}$
9 PHIL elective credits: must include PHIL $210^{3}$ or $214^{3 *}$ Stage III
6 PHIL elective credits at the 400 level* *PHIL elective or cognate credits to be chosen in consultation with the Department.

## 24 Minor in Philosophy

6 Chosen from PHIL $232^{3}, 263^{3}, 265^{3}$
6 PHIL elective credits at the 200 level or higher
12 PHIL elective credits from the 300 level or higher

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.
In any given year, some 400-level courses will be cross-listed with graduate courses. In order to register in cross-listed courses, students would be expected to have completed at least 21 credits in Philosophy or receive permission of the Department.

## PHIL 201 Problems of Philosophy

 (3 credits)In this course, students are introduced to philosophical reasoning through the study of important philosophical problems. Typical issues to be discussed are: What is knowledge? (Does it require certainty? How is it distinct from belief?) Are human beings free? (Do people choose their actions or are their actions determined by causes outside their control?) If people are not free, then how can they be held morally responsible for their actions? Can God's existence be proven? (What if it cannot?) How is the mind related to the body, if at all? What is it to lead a good life? The focus of these investigations is on contemporary philosophical writings.
NOTE: Students who have received credit for PHIZ 201 may not take this course for credit.

PHIL $210 \quad$ Critical Thinking (3 credits) Arguments are used for reasoning not just in philosophy but in people's everyday lives. This practical logic course focuses on the kinds of arguments one is likely to encounter in newspapers, philosophical, social, and political debates, and academic journals. Students learn what makes an argument good or bad. The objective is to make students better at understanding, evaluating, and constructing arguments in all areas of study.
NOTE: This is not a course in formal logic (see PHIL 214), though some formal methods of evaluation will be included.

PHIL 214 Deductive Logic (3 credits) This course presents the modern symbolic systems of sentential and predicate logic. Students transcribe English sentences into a logical form, analyse the concepts of logical truth, consistency, and validity, as well as learn to construct derivations in each system.
NOTE: This course may not be taken for credit by students who have taken PHIL 212.

## PHIL 216 Introduction to the Philosophy

 of Language (3 credits)This course provides an introduction to the main problems in the philosophy of language, concerned with the analysis of the concepts of meaning, reference, truth, necessity.

PHIL 218 Inductive Logic (3 credits) Prerequisite: PHIL 214, or permission of the Department. This course provides an introduction to probabilistic and non-probabilistic approaches to inductive logic. Topics covered may include: Hume's problem of induction, the new riddle of induction, causality, and the interpretation of the probability calculus.

## PHIL 220 Introduction to the Philosophy

 of Science (3 credits)This course provides an introduction to the main problems in the philosophy of science. These include the structure of scientific theories, various models of scientific method and explanation, and the existence of unobservables.
NOTE: Students who have received credit for

INTE 250 or PHIL 228 or SCHA 250 may not take this course for credit.

PHIL 226 Mind and Action (3 credits) Drawing from contemporary work in philosophy and psychology, students have the opportunity to consider philosophical questions about the nature of the mind. For example: Is a mind just a brain? Can there be disembodied minds? What is conscious experience and how is it to be studied? Is artificial intelligence possible? The other major theme of this course is the possible motives for human action. For example: Can people act without intentions? Can they have intentions without free will? What influence do environmental, genetic, and societal factors have on their actions?
NOTE: Students who have received credit for PHIL 225 may not take this course for credit.

## PHIL 232 <br> Introduction to Ethics

 (3 credits)Philosophical discussions of ethics have both practical significance (What should one do?) and theoretical interest (What does it mean to say "That's the right thing to do"?). In this course, students are introduced to some representative approaches to ethical thought and action. General questions about the nature of ethical reasoning are also considered. For example: Are there objective ethical truths or are ethical judgements merely relative to social norms? An effort is made to incorporate those ethical issues which are of specific importance to contemporary society.
NOTE: Students who have received credit for PHIZ 232 may not take this course for credit.

## PHIL 233 Applied Ethics: Moral Sensitivity and Human Well-Being (3 credits)

This course focuses on ethical theory and its application to contemporary issues. The course covers central ethical theories such as virtue ethics (Aristotle), deontology (Kant), and utilitarianism (Mill). It applies these theories to contemporary moral issues such as abortion, consumerism, the use of drugs in the pursuit of happiness, and the rationing of health-care resources.
NOTE: Students who have received credit for this topic under a PHIL 298 or PHIZ 298 number may not take this course for credit.

PHIL 234 Business Ethics (3 credits)
The purpose of this course is to elucidate the key ethical notions with reference to the business world. The intention is to make students aware of situations in which ethical implications arise, rather than to impose specific rules. NOTE: Students who have received credit for PHIL 242 may not take this course for credit.

PHIL 235 Biomedical Ethics (3 credits) Bioethics is an interdisciplinary subject that overlaps areas of medicine, law, and philosophical
ethics. This course is primarily concerned with contemporary biomedical debates, many of which are of current social and political significance: euthanasia and physician-assisted suicide, patients' rights, animal experimentation, organ donation and transplantation, palliative care, abortion, genetic engineering, and new reproductive technologies.
NOTE: Students who have received credit for PHIZ 235 may not take this course for credit.

## PHIL 255 Philosophy of Leisure (3 credits)

This course examines philosophical problems relating to such issues as leisure, recreation, labour, time, and fulfilment. The aim is to stimulate the student to think critically about the goals of individuals and of society as they concern these issues. The course is of interest to students in Therapeutic Recreation and Leisure Sciences and to others interested in the problems of using free time to best advantage.

## PHIL 260 Presocratics and Plato

 (3 credits)A critical examination of some central philosophical theories of the Presocratics and Plato. NOTE: Students who have received credit for PHIL 310 or 370 may not take this course for credit.

## PHIL 261 Aristotle and Romans

 (3 credits)Prerequisite: PHIL 260, or permission of the Department. A critical examination of some central philosophical theories of Aristotle and the Romans.
NOTE: Students who have received credit for PHIL 310 or 370 may not take this course for credit.
PHIL 263 Introduction to Epistemology (3 credits)
An introduction to the basic concepts and problems in epistemology, including belief, knowledge, scepticism, perception, and intentionality.

## PHIL 265 Introduction to Metaphysics

 (3 credits)Metaphysics is the philosophical study of the ultimate nature of reality. In other words, it considers the question "What is there?" in several areas of study. For example: Are there minds? It seems so, but perhaps there are merely brains. Is there time? Not in the everyday sense of watches and clocks, but independently of humans. Do objective moral values exist or are they made up? Is there a God and, if so, what is that God like? An effort is made to relate these and other philosophical speculations to contemporary science, and, as well, to indicate the ways in which metaphysics is distinct from science.

PHIL 266 Introduction to Philosophy of Religion (3 credits)
There is a long philosophical tradition concerned with the existence of God. In this course, various
proofs for God's existence are discussed and evaluated, as are a number of other issues. For example: How does the existence of evil affect one's views about God and God's nature? What is the status of miracles? What is religious experience and the nature of religious faith? How is one to understand religious language?

## PHIL 275 From Modern to Postmodern: Philosophical Thought and Cultural Critique (3 credits)

This course focuses on key developments in modern and postmodern philosophy and their cultural influences. The course provides an introduction to philosophers (such as Kant, Nietzsche, and Foucault) and philosophical movements (such as empiricism, existentialism, and post-structuralism) of the modern era. It also introduces students to the tremendous influence that philosophical theory has had on the arts, on social and political movements, and on virtually every field of study in the humanities and social sciences.
NOTE: Students who have received credit for this topic under a PHIL 298 or PHIZ 298 number may not take this course for credit.

## PHIL 285 Non-Western Philosophy

 (3 credits)This course introduces the student to the philosophical activities of non-Western cultures. The particular focus differs from year to year.

## PHIL 298 Introductory Topics in Philosophy (3 credits) <br> PHIL 299 <br> Introductory Topics in Philosophy (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

PHIL 314 Intermediate Logic: Metatheory (3 credits)
Prerequisite: PHIL 214, or permission of the Department. This course presents the basic concepts of metalogic, including mathematical induction, soundness and completeness, decidability.
NOTE: Students who have received credit for PHIL 323 may not take this course for credit.

PHIL 315 Intermediate Logic: Themes and Problems (3 credits)
Prerequisite: PHIL 214, or permission of the Department. The subject of this course varies from offering to offering among the following possible studies: modal logic, probabilistic logic, many-valued logic, relevance logic, and historical themes in logic.
NOTE: Students who have received credit for PHIL 321 may not take this course for credit.

## PHIL 318 (also listed as SCHA 318) Philosophy of Biology

 (3 credits)Prerequisite: PHIL 220, or permission of the

Department. This course examines a variety of philosophical issues in biology. Topics covered may include: fitness, function, units of selection, the nature of species, reductionism, biological explanation of human behaviour and the ethical and epistemological consequences of evolutionary theory.
NOTE: Students who have received credit for SCHA 318 may not take this course for credit.

PHIL 324 Philosophy of Social Science (3 credits)
Prerequisite: Three credits in Philosophy or 12 credits in a social science department, or permission of the Department. Philosophical examination of the structure and methodology of the social sciences.
NOTE: Students who have received credit for PHIL 346 may not take this course for credit.

PHIL 325 Minds, Brains and Machines (3 credits)
Prerequisite: PHIL 226, or permission of the Department. An examination of the computer model of the mind by consideration of the classical computationalist account and its problems, together with some attention to the connectionist alternative.

PHIL 327 Artificial Intelligence (3 credits) Prerequisite: Three credits in Philosophy or Computer Science. The purpose of this course is to explore the analogy between mental activity and the operation of computers or "electronic brains", with a view to answering the question: Can machines think? Such topics as the following are treated: the concept of the Turing machine; the Turing test of intelligence; the functionalist theory of the mind; the nature of creativity; and the alleged implications of Gödel's incompleteness theorem.
NOTE: Students who have received credit for PHIL 354 may not take this course for credit.

## PHIL 328 Conceptual Revolutions in Science: Space and Time (3 credits)

This course studies the philosophical implications of major scientific revolutions in our understanding of space, time and gravity. Examples of such revolutions may include the Newtonian revolution and Einstein's theories of relativity.

## PHIL 329 Conceptual Revolutions in Science: Quantum Theory (3 credits)

This course examines the philosophical implications of quantum revolution. Topics covered may include the fundamental concepts of quantum mechanics, quantum nonlocality, Schrödinger's Cat (the measurement problem), and quantum field theory.

## PHIL 330 Contemporary Ethical Theory

 (3 credits)Prerequisite: PHIL 232 or 233 or 234 or 235 , or permission of the Department. This course provides an in-depth examination of the foundations
of contemporary ethical theories such as deontology, utilitarianism, virtue theory, feminist ethics, and narrative ethics.
NOTE: Students who have received credit for PHIZ 330, or for this topic under a PHIL 398 or PHIZ 398 number may not take this course for credit.

## PHIL 333 Philosophical Ideas in Literature (3 credits)

Prerequisite: Three credits in Philosophy, or permission of the Department. An approach to philosophical ideas in literature through a comparison of authors. This could involve authors from different historical time frames, and different cultural world views, or elaborate different perspectives of a single author.

## PHIL 339 Aesthetics (3 credits)

Prerequisite: Three credits in Philosophy, or permission of the Department. A survey of classical aesthetic theory in Western philosophy, with particular attention to major developments in the modern and contemporary periods. NOTE: Students who have received credit for PHIL 353 may not take this course for credit.

PHIL 342 Political Philosophy (3 credits) Prerequisite: Three credits in Philosophy or Political Science, or permission of the Department. This course provides an historical introduction to and critical analysis of political-philosophical concepts. These concepts may include tolerance, violence, separatism, racism, and nationalism.

## PHIL 343 Philosophy of Law: General Jurisprudence (3 credits)

A philosophical study of natural law, legal positivist, and legal realist replies to the question of what law is. Contemporary and classical replies are criticized and are applied to cases. The associated issues of legal moralism, legal justice, legal obligation and its limits, and legal reasoning are treated.
NOTE: Students who have received credit for PHIL 357 may not take this course for credit.

## PHIL 344 The Philosophy of Liberalism

 (3 credits)In this course, the student examines several perspectives from which the problem of the relation between law and morality may be treated. Conflicting concepts of law, morality, and the relation of the individual to society are discussed. The problem of authority is examined in relation to issues of civil liberties, civil rights, and the social basis of legal conflicts.

## PHIL 345 Legal Philosophy: Legal Rights and Duties (3 credits)

A philosophical study of the nature, sources, and functions of rights and duties. Attention is given to the particular rights associated with contract and property, and their abuse; to duties arising by law alone; to excuses and justifications for failure to fulfil duties; and to enforcement,
punishment, and compromise.
NOTE: Students who have received credit for PHIL 358 may not take this course for credit.

## PHIL 352 Philosophy of History

(3 credits)
Prerequisite: Six credits in History, or permission of the Department. An analysis of the nature of historical knowledge and explanation is followed by a study of classical and contemporary attempts to elucidate the meaning of history. Authors discussed include Augustine, Vico, Kant, Hegel, Marx, Spengler, Popper, Toynbee, Arendt.

## PHIL 356 Philosophy of Education

 (3 credits)An examination of philosophical principles underlying educational theories and of the problems arising from the practical implementation of those theories.
NOTE: Students who have received credit for PHIL 349 may not take this course for credit.

PHIL 360 Rationalism (3 credits)
Prerequisite: PHIL 260, 261 and 12 credits in Philosophy, or permission of the Department. A critical study of the work of Descartes, Spinoza and Leibniz covering metaphysical, ethical and epistemological issues.
NOTE: Students who have received credit for PHIL 412 or 473 may not take this course for credit.

PHIL 361 Empiricism (3 credits)
Prerequisite: PHIL 260, 261, 360 and 12 credits in Philosophy, or permission of the Department. A critical study of central aspects of the work of Locke, Berkeley and Hume on a variety of philosophical issues.
NOTE: Students who have received credit for PHIL 412 or 473 may not take this course for credit.

## PHIL 371 Philosophy of Feminism

 (3 credits)Prerequisite: PHIL 232 and 263, or permission of the Department. This course provides an introduction to some of the central issues in contemporary philosophy of feminism. The key arguments in feminist epistemology, feminist ethics, and sex and gender studies are discussed from a variety of perspectives. NOTE: Students who have received credit for PHIL 247 may not take this course for credit.

## PHIL $377 \quad$ Twentieth Century Continental

 Philosophy (3 credits)Prerequisite: Six credits in Philosophy, or permission of the Department. An examination of twentieth century French and German philosophy. Philosophers examined may include Husserl, Heidegger, Merleau-Ponty, Foucault, Derrida, Habermas or others.
NOTE: Students who have received credit for PHIL 313 or 376 may not take this course for credit.

PHIL 378
American Philosophy
(3 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. An analysis of some classical American pragmatists, such as Peirce, Dewey, James and C.I. Lewis, together with exponents of contemporary neo-pragmatism, such as Putnam, Rorty and Quine.
NOTE: Students who have received credit for PHIL 313 or 376 may not take this course for credit.

PHIL 385 Marxism (3 credits)
A critical analysis of the ideas of Marx and their modern development.
NOTE: Students who have received credit for PHIL 335 may not take this course for credit.

PHIL 387 Existentialism (3 credits)
This course is designed to acquaint the student with the fundamentals of the existentialist movement as a philosophical perspective. Philosophers considered may include Kierkegaard, Nietzsche, Heidegger, Sartre, Merleau-Ponty, Jaspers, Marcel and Berdyaev.
NOTE: Students who have received credit for PHIL 312 or 386 may not take this course for credit.

PHIL 398 Intermediate Special Topics in Philosophy (3 credits)

PHIL 399 Intermediate Special Topics in Philosophy (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## PHIL 414 Advanced Topics in Logic

 (3 credits)Prerequisite: PHIL 314, or permission of the Department. This course will present the fundamentals of an advanced topic in logic. NOTE: Students who have received credit for PHIL 422 may not take this course for credit.

## PHIL 416 Philosophy of Language

 (3 credits)Prerequisite: Twelve credits in Philosophy among which is required PHIL 216, or permission of the Department. Advanced study of a central problem in recent philosophy of language.

## PHIL 420 Advanced Philosophy of Science: Scientific Explanation and Theory Change (3 credits)

Prerequisite: Twelve credits in Philosophy, or permission of the Department. This course provides an in-depth study of the justification and explanatory power of scientific theories and the rationality of theory change in science. NOTE: Students who have received credit for PHIL 421 may not take this course for credit.

## PHIL 422

## Advanced Philosophy of

 Science: Scientific Realism (3 credits)Prerequisite: Twelve credits in Philosophy, or permission of the Department. This course provides an in-depth study of contemporary debates concerning realism and anti-realism. For instance, it examines the status of unobservable entities such as quarks, genes, and the Super-Ego.
NOTE: Students who have received credit for PHIL 421 may not take this course for credit.

PHIL 425 Philosophy of Mind: Cognitive Science (3 credits)
Prerequisite: PHIL 325, or permission of the Department. An interdisciplinary study which combines the philosophical study of mind with current research in psychology, neuro-science, linguistics, and computer science.
NOTE: Students from related disciplines are welcome, and should consult the instructor concerning prerequisites.
NOTE: Students who have received credit for PHIL 426 may not take this course for credit.

PHIL $430 \quad$ Advanced Studies in Ethics (3 credits)
Prerequisite: PHIL 232 or 330, or permission of the Department. A critical analysis of leading ethical theories from Moore to the present. Special attention is given to the naturalistic fallacy, the reducibility of normative statements, ethical reasoning, and the relation of ethics to psychology and sociology.
NOTE: Students who have received credit for PHIL 456 may not take this course for credit.

## PHIL 463 Honours Seminar in

 Epistemology (3 credits)Prerequisite: PHIL 263 and 12 credits in Philosophy, or permission of the Department. Intensive study of major contemporary issues in the theory of knowledge.
NOTE: Students who have received credit for PHIL 460 may not take this course for credit.

## PHIL 465 Honours Seminar in

 Metaphysics ( 3 credits)Prerequisite: PHIL 265 and 12 credits in Philosophy, or permission of the Department. Intensive study of major contemporary issues in metaphysics.
NOTE: Students who have received credit for PHIL 460 may not take this course for credit.

PHIL $471 \quad$ Advanced Topics in Feminist Theory ( 3 credits)
Prerequisite: PHIL 371, or permission of the Department. An examination of recent issues in one of feminist ethics, epistemology or metaphysics. Subject will vary from year to year.

PHIL 474 Nineteenth-Century Philosophy ( 6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. An examination
of some of the main currents of post-Kantian philosophy. Hegel and the post-Hegelians, the romantic reaction, positivism, and pragmatism. NOTE: Students who have received credit for PHIL 417 may not take this course for credit.

PHIL $480 \quad$ Plato (3 credits)
Prerequisite: Twelve credits in Philosophy among which is required PHIL 260 and 261, or permission of the Department. An analysis of some of the central themes in the major dialogues of Plato.

PHIL $481 \quad$ Aristotle (3 credits)
Prerequisite: Twelve credits in Philosophy among which is required PHIL 260 and 261, or permission of the Department. An analysis of the central themes in selected passages from the major works of Aristotle.
PHIL 485 Kant ( 6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. An intensive study of Kant's Critique of Pure Reason and related works.

PHIL 486 Hegel ( 6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. An analysis of selected themes from Hegel's works.
PHIL 487 Early Analytic Philosophy (3 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. This course investigates selected philosophical problems as they arise in the writings of such early analytic philosophers as Moore, Russell, Ayer, Carnap, and the early Wittgenstein.
NOTE: Students who have received credit for PHIL 467 may not take this course for credit.
PHIL 488 Contemporary Analytic Philosophy (3 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. This course investigates selected philosophical problems as they arise in the writings of such analytic philosophers as the later Wittgenstein, Quine, Ryle, Wisdom, Austin, and others.
NOTE: Students who have received credit for PHIL 468 may not take this course for credit.

PHIL 489 Phenomenology ( 6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. Origins and development of phenomenology from Brentano and Meinong through the different stages of Husserl's writings. Post-Husserlian modifications are considered briefly. The second term is devoted to a discussion of the influence of the phenomenological movement on contemporary developments in the social sciences and humanities. Actual topics are determined by the student's areas of interest and academic qualifications.
NOTE: Students who have received credit for PHIL 449 may not take this course for credit.

## PHIL 496 Tutorial in Philosophy

 (3 credits)Prerequisite: Permission of the Department. This is an opportunity to carry out a personal project under the supervision of a Faculty member. An intensive reading program is undertaken in the student's area of special interest. Tutorials may be arranged with any Faculty member, and the student must make these arrangements and obtain written permission in advance of registration. NOTE: Students who have received credit for PHIL 471 may take this tutorial for credit provided the subject matter is different.

PHIL $497 \quad$ Tutorial in Philosophy (3 credits)
Prerequisite: Permission of the Department. See PHIL 496 for description.
NOTE: Students who have received credit for PHIL 472 and/or 496 may take this tutorial for credit provided the subject matter is different.

## PHIL 498 Advanced Topics in Philosophy (3 credits) <br> PHIL 499 Advanced Topics in Philosophy (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

### 31.230 <br> PHYSICS

|  | Acting Chair | CaLVIN S. KALMAN |
| :--- | :--- | :--- |
| Faculty | ANNETTE TEFFETELLER, Associate Professor | SUSHIL K. MISRA |
|  | Professors | PANAGIOTIS VASILOPOULOS |
|  | J. DAVID CHEEKE | Associate Professors |
|  | BARRY FRANK | RAMESH C. SHARMA |
|  | MARIANA FRANK | JOSEPH SHIN |
|  |  |  |
| Location | Loyola Campus <br> Science Complex, Room: 367 <br> (514) $848-3270$ |  |
|  |  |  |

Department
Objectives

In the twentieth century, breakthroughs in physics have revolutionized thinking about the fundamentals of matter, motion, and energy. Physics is the study of these fundamentals. The Physics Department is committed to preparing students for careers or advanced study in both the theoretical and applied aspects of physics. Students in the co-op program gain valuable job experience and discover the career opportunities open to them in addition to regular course work.

Students are required to complete the appropriate entrance profile for entry into the program (see §31.002 - Programs and Admission Requirements - Profiles).

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

## 42 Core Program*

6 MAST 2183, $219^{3}$
33 PHYS $232^{3}, 233^{3}, 245^{3}, 253^{3}, 254^{3}, 334^{3}, 335^{3}, 346^{3}, 352^{3}, 364^{3}, 477^{3}$
3 PHYS 291 ${ }^{1}$, 293 ${ }^{1}$, $394^{1}$

63 BSc Specialization in Physics*
42 Core Program
12 PHYS $435^{3}, 436^{3}, 458^{3}, 466^{3}$ or $467^{3}$
9 Chosen from PHYS $290^{2}$ and $297^{1}, 353^{3}$, $355^{3}, 466^{3}$ or $467^{3}, 478^{3}, 494^{3}, 498^{3}$

90 BSc Specialization in Physics/ Marketing*
42 Core Program
15 COMM $210^{3}, 212^{3}, 215^{3}, 222^{3}, 224^{3}$
6 ECON 2013, $203^{3}$

3 ACCO $220^{3}$
12 Chosen from the Department of Marketing
12 Elective credits (physics, math and computing)

## 42 BSc Major in Physics*

42 Core Program
Students in the Major program may replace PHYS $346^{3}$ with PHYS $355^{3}$ and/or PHYS $477^{3}$ with PHYS $353^{3}$
*Admission suspended for 2003-04.

## PHYSICS CO-OPERATIVE PROGRAM

Director
J. DAVID CHEEKE, Professor

The Physics Co-operative program is offered to students who are enrolled in the BSc Specialization programs in Physics. Students interested in applying for the Physics co-op should refer to §24 where a full description of the admission requirements is provided.
Academic content is very similar to that of the regular programs, with some specific recommendations for courses to improve the students' job skills. While it is hoped that most of the positions will be in the Montréal area, students must be prepared to work in other parts of Canada.
Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Physics co-op committee, which includes the student's advisers.
Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

PHYS 204 Mechanics (3 credits)
Prerequisite: MATH 203 or equivalent, previously or concurrently. Kinematics, Newton's laws of motion. Statics, dynamics. Conservation of momentum and energy. Rotational motion. Periodic motion. Lectures only.
NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration. See PHYS 224 for laboratory associated with this course.

## PHYS 205 Electricity and Magnetism

 (3 credits)Prerequisite: MATH 203; PHYS 204 or equivalent. Electrical charge and Coulomb's law. Electrical field and potential. Capacity, steady state, and transient currents. Electromagnetic induction and alternating currents. Lectures only. NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration. See PHYS 225 for laboratory associated with this course.

## PHYS 206 Waves and Modern Physics

 (3 credits)Prerequisite: PHYS 204 or equivalent. Simple harmonic motion. Wave propagation. Superposition. Stationary waves. Doppler effect. Interference. Diffraction. Photoelectric effect. Compton effect. Bohr's atom. Radioactivity, fission, fusion. Lectures only.
NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration. See PHYS 226 for laboratory associated with this course.

## PHYS 210 Discoveries in Physics

 (6 credits)A non-mathematical course in physics specifically designed for students who have had little or no experience in physics. This courses traces the fundamental ideas from which modern physics has emerged, and attempts to develop insights into the understanding of natural phenomena. Lectures only.
NOTE: Students in programs leading to the BSc degree may not take this course for credit.

## PHYS 224 Introductory Experimental Mechanics (1 credit)

Prerequisite: PHYS 204 previously or concurrently, or permission of the Department. This laboratory course covers fundamental experiments in classical mechanics. Experiments
include resolution of forces, centrifugal force and conservation of energy, pendulums. Laboratory only, 10 experiments.
NOTE: Students in programs leading to the BSC degree may not take this course for credit to be applied to their program of concentration.

## PHYS 225 Introductory Experimental

 Electricity (1 credit)Prerequisite: PHYS 205 previously or concurrently, or permission of the Department. This laboratory course covers fundamental experiments in electricity. Experiments include Kirchhoff's law, resistors in series and parallel, oscilloscope, induction, alternating current. Laboratory only, 10 experiments. NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration.

## PHYS 226 Introductory Experimental Waves and Modern Physics (1 credit)

Prerequisite: PHYS 206 previously or concurrently, or permission of the Department. This laboratory course covers the fundamental experiments in waves and modern physics. Experiments include spectrometer measurements. Newton's rings and measurements involving radioactivity. Laboratory only, 10 experiments.
NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration.

PHYS 232 Theoretical Physics I (3 credits)
Prerequisite: MAST 218 previously or concurrently. Linear algebra: vector spaces, Euclidean n-space, linear transformations, matrices, similarity transformations, diagonalization, applications. Differential equations: Wronskian, $n$-th order differential equations, linear differential equations with variable coefficients, power series method. Lectures only.

## PHYS 233 Object-Oriented Programming and Applications (3 credits)

Prerequisite: MATH 203, 204. This course is an introduction to object-oriented programming using C++ and Unix, Common Unix commands, and the vi(m) editor. It focuses on E-mail (pine), transfer of files over the Internet, accessing course materials on the Web, C++ classes and objects, class design and implementation, data types, operators, functions, selection statements, repetition statements, arrays and pointers.

Applications include fundamentals of statistics, and linear least squares analysis.
NOTE: Students who have received credit for COMP 215 or 248 may not take this course for credit.

## PHYS 234 Computational Methods in

 Science (3 credits)Prerequisite: MATH 203, 204. This course reviews Internet access of course materials and main principles of object-oriented programming. There is an exchange of files containing greek letters, scientific formulae, etc. (TeX, LaTeX, Scientific Notebook and Maple). Creation of Web pages. Graphical display of functions and data obtained from other applications (including C++ output files). Root finding, Runge-Kutta method for differential equations, numerical integration, systems of linear equations, Monte Carlo computer simulations.
NOTE: Students who have received credit for this topic under a PHYS 298 number may not take this course for credit.

PHYS 245 Classical Mechanics (3 credits) Prerequisite: MATH 204, 205 or equivalent. Statics of rigid bodies, work and potential functions, motion in uniform field. Particle motion in an accelerated frame, rotation coordinate systems, motion in a resisting medium, small oscillations, damped (harmonic) motion, motion under central forces, mechanics of a rigid body, dynamics of systems of particles, motion of rigid bodies in three dimensions, elements of Lagrangian mechanics. Lectures only.
NOTE: See PHYS 291 for laboratory associated with this course.
NOTE: Students who have received credit for PHYS 243 or 244 may not take this course for credit.

## PHYS 253 Electricity and Magnetism I

 (3 credits)Prerequisite: PHYS 205 or equivalent; MAST 218 or equivalent, previously or concurrently. Electrostatics, Gauss' law, electric potential, curl and divergence of fields, capacitance, RC circuits, Laplace's equation, Legendre equation, method of images, multipole expansion, dielectrics, polarization, dipole moments, electric displacement. NOTE: See PHYS 293 for laboratory associated with this course.

## PHYS 254 Electricity and Magnetism II

 (3 credits)Prerequisite: PHYS 253 or equivalent; MAST 219 or equivalent, previously or concurrently. BiotSavart Law, Ampere's law, divergence and curl of $B$, magnetic vector potential, magnetization, ferromagnetism, electromagnetic induction, motional EMF, inductance, transformer, ac-circuits, Maxwell's equations, the wave equation, polarization, reflection and transmission of em waves, rectangular wave guide, half-wave antenna. Lectures only.

PHYS 270 Introduction to Energy and Environment (3 credits)
This course is designed for students who have little or no background in physics. Topics covered include relationship of physics to environment and energy. Concept and definition of work and energy. Interaction of people and inanimate objects with the environment. Heat and chemical energy. Electromagnetic and nuclear energy. Conservation of energy - how it affects everyday life. Sources of energy used on earth. Solar energy. Production of wind power, water power, solar cells from sun's energy, biological uses, biopower. Lectures only. NOTE: Students in programs leading to the BSC degree may not take this course for credit.

## PHYS 273 Energy and Environment (3 credits)

Prerequisite: PHYS 270, or six credits in cégep Physics, or equivalent. Nuclear energy stored in the earth. Geothermal energy. Biological energy stored in the earth. Second law of thermodynamics. Entropy. Food energy. Home heating and cooling. Solar heating. Transportation of people, goods, and energy. Recycling materials. Resource conservation and humanity's ability to change - need for a conservation ethic, need for alternate energy sources, need for public knowledge. Lectures only.

## PHYS 290 Experimental Electronics (2 credits)

Prerequisite: PHYS 205, 225 or equivalent. A practical laboratory course in electronics. This course explores the usage of electronic measuring instruments and components. Experiments include power supplies, transistor amplifiers, operational amplifiers, oscillators, audio and radio frequency amplifiers.
NOTE: Students who have received credit for PHYS 295 and 296 may not take this course for credit.

## PHYS 291 Experimental Mechanics I

 (1 credit)Prerequisite: PHYS 245 previously or concurrently. A laboratory course in mechanics. Experiments include pendulum, coefficient of restitution, centrifugal force, rotational inertia, inelastic impact.

## PHYS 292 Experimental Mechanics II

 (1 credit)Prerequisite: PHYS 291. A laboratory course in mechanics. Experiments include the use of air tracks to study acceleration, collisions, dissipative forces, and periodic motion. Other experiments include viscosity and surface tension of liquids.

## PHYS 293 Experimental Electricity and

 Magnetism I (1 credit) Prerequisite: PHYS 253 previously or concurrently. A laboratory course in electricity and magnetism. Experiments include motion ofelectrons in electric and magnetic fields, exponential relaxation, damped oscillations, resonance, non-linearity, negative resistance.

## PHYS 294 Experimental Electricity and Magnetism II (1 credit)

Prerequisite: PHYS 293. A laboratory course in electricity and magnetism. Experiments include the transistor, amplification and frequency response, transient response and negative feedback, positive feedback and oscillation, periodic structures.

## PHYS 295 Experimental Electronics I

 (2 credits)A practical laboratory course in electronics. Experiments include resistors in series and parallel, voltameter, Ohm's law, Kirchhoff's current and voltage laws, Ohmmeter, capacitor, inductor, transformer, rectifiers, voltage doubler, zener diode, power supplies.
NOTE: Students who have received credit for PHYS 290 may not take this course for credit.

## PHYS 296 Experimental Electronics II

 (2 credits)Prerequisite: PHYS 295. A practical laboratory course in electronics. Experiments include oscilloscope, biasing of bipolar transistors, transistor amplifiers, voltage and current regulators, field-effect transistor, oscillators, operational amplifier circuits, audio amplifier, I-F transformer, limiter, amplitude and frequency modulation.
NOTE: Students who have received credit for PHYS 290 may not take this course for credit.

PHYS 297 Experimental Optics (1 credit) Prerequisite: PHYS 352 previously or concurrently. An experimental course in optics. Experiments include diffraction, optical instruments, resonance, and various experiments using lasers. Laboratory only, 10 experiments. NOTE: Students who have received credit for PHYS 392 may not take this course for credit.

## PHYS 298 Selected Topics in Physics

 (3 credits)PHYS 299 Selected Topics in Physics ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

PHYS 334 Thermodynamics (3 credits) Prerequisite: PHYS 204 or equivalent; MAST 218, 219 or equivalent. Equation of state, ideal and real gases, thermodynamic surfaces, first law of thermodynamics, isothermal and adiabatic processes, the energy equation, liquefaction of gases, Carnot engine, second law of thermodynamics, entropy, third law, thermodynamic potentials, Clausius-Clapeyron equation, kinetic theory, equipartition of energy, Van der Waals'
equation, transport phenomena, probability and thermal distributions. Lectures only.
NOTE: See PHYS 393 for laboratory associated with this course.

## PHYS 335 Theoretical Physics II

(3 credits)
Prerequisite: PHYS 232 or equivalent; MAST 219 previously or concurrently. Function of a complex variable, Fourier series, applications to a vibrating string, heat conduction, Fourier transform, Laplace transform, application to differential equations, delta functions, eigenvalue problems. Lectures only.

## PHYS 346 Advanced Classical Mechanics

 and Special Relativity (3 credits)Prerequisite: PHYS 232 or equivalent; PHYS 245 or equivalent; MAST 219 or equivalent. Generalized coordinates, Lagrange's equations, method of Lagrange multipliers, variation formulation, Hamilton's equations of motion, canonical transformation, Hamilton-Jacobi theory, special theory of relativity, Einstein's axioms, Lorentz transformation, form invariance and tensors, four-vector, gravity. Lectures only.
NOTE: Students who have received credit for PHYS 344 or 345 may not take this course for credit.

PHYS 352 Optics ( 3 credits)
Prerequisite: PHYS 206; PHYS 254 recommended. Superposition of waves, phase and group velocities, dispersion, interference, double slit, Michelson interferometer, reflectance and transmittance of thin films, diffraction, Fraunhofer and Fresnel diffraction, polarization, polariscope, dichroism, Fabry-Perot etalon, electron, acoustic and other microscopes, resolving power, Fourier optics, introduction to lasers and fibre optics. Lectures only.
NOTE: Students who have received credit for PHYS 252 may not take this course for credit.

## PHYS 353 Solid State Electronic Devices

 (3 credits)Prerequisite: PHYS 253 or equivalent. Crystal structure, energy band theory, carrier transport, depletion region, current-voltage characteristics, Zener diode, metal-semiconductor junction, special diodes, tunnel diode, photo-diode, LEDs, Schottky diode, bipolar junction transistors, field effect transistors, metal oxide semiconductor FET, integrated circuits, elements of integrated circuits. Lectures only.
NOTE: Students who have received credit for PHYS 354 may not take this course for credit.

PHYS 355 Electronics (3 credits)
Prerequisite: PHYS 353 recommended. Basic circuit analysis, network theorems, maximum power transfer, diode characteristics and circuits, power supply designs, transistor characteristics, incremental equivalent circuits, input and output impedance calculations, emitter follower and Darlington amplifiers, power amplifiers, dc
stabilization and negative feedback, operational amplifiers, phase detection, frequency multiplier and special circuits. Lectures only.
NOTE: See PHYS 290 for laboratory associated with this course.

PHYS 364 Atomic Physics (3 credits) Prerequisite: PHYS 205, 206 or equivalent; PHYS 254 recommended. The photoelectric effect, X-ray and bremsstrahlung, Compton effect, photon-electron interaction, DeBroglie waves, $X$-rays and electron diffraction, the uncertainty principle, Schrödinger's equation, particle in a box, Bohr theory of the hydrogen atom, Schrödinger's equation of hydrogen atom, Franck-Hertz experiment, Zeeman effect, electron spin, Stern-Gerlach experiment. Lectures only.
NOTE: See PHYS 394 for laboratory associated with this course.

## PHYS 384 Introduction to Astronomy

 (3 credits)Prerequisite: PHYS 205 or equivalent; MATH 205 or equivalent. The celestial sphere. The solar system. Celestial mechanics. Basic stellar characteristics. The galaxy - structure and content. Extragalactic objects. Lectures only.

PHYS 385 Astrophysics (3 credits)
Prerequisite: PHYS 384. The stars, stellar atmospheres, motion, interiors, and populations. Variable stars. Nebulae. Radio, X-ray, and infrared sources. The galaxy - population and dynamics. The extragalactic universe. Lectures only.

## PHYS 390 Experimental Digital Electronics (3 credits)

Prerequisite: PHYS 296 or equivalent. Breadboarding digital circuits; gating a signal; truth tables; decade counter; decoders, demultiplexers, multiplexers and sequencers; light-emitting diodes and LED displays; tristate and open collector outputs; flip-flops, monostable multivibrators; semiconductor memories; registers, binary counters, arithmetic logic units. Laboratory only. NOTE: Students who have received credit for PHYS 396 may not take this course for credit.

## PHYS 391 Introduction to Experimental Microprocessors and Assembly Language Programming (3 credits)

Prerequisite: PHYS 233; COMP 212 or equivalent. Eight-bit microprocessor architecture: opcodes, addressing modes, memory mapped I/O, vectored interrupts, etc. The MS/DOS operating system, word processing, Motorola assembly language: pseudocodes, labels, subroutines, interrupt service routines, structured programming techniques. Cross assemblers, RS232 serial transmission of ASCII and binary data to remote computers. Laboratory only. NOTE: Students who have received credit for PHYS 396 may not take this course for credit.

PHYS 392

## Experimental Medical

 Electronics (3 credits)Prerequisite: PHYS 290 or 296, or equivalent. A laboratory course in the maintenance and use of medical instruments, including ECG monitor, electrocardiograph, cardio-tachometer, bloodpressure recorder, respiration-rate recorder, and clinical thermometer. The component parts of the instruments are studied first, and then the instruments are constructed and tested. Laboratory only.
NOTE: Students who have received credit for PHYS 397 may not take this course for credit.

## PHYS 393 Experimental Thermodynamics

 (1 credit)Prerequisite: PHYS 334 previously or concurrently. A laboratory course in thermodynamics. Experiments include Clement and Desormes' experiment, vaporization, specific heats, liquid nitrogen boiling. Laboratory only, 10 experiments. NOTE: Students who have received credit for PHYS 494 may not take this course for credit.

## PHYS 394 Experimental Atomic Physics

 (1 credit)Prerequisite: PHYS 226 or equivalent, or permission of the Department. An experimental course in atomic physics. Experiments include the Frank-Hertz experiment, the Zeeman effect, mass spectrometer, and some $X$-ray work. Laboratory only, 10 experiments.

PHYS 398 Selected Topics in Physics (3 credits)

## PHYS 399 Selected Topics in Physics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

PHYS 435 Statistical Physics (3 credits)
Prerequisite: PHYS 334, 364. Statistical concepts, probability, Gaussian probability distribution, statistical ensemble, macrostates and microstates, thermodynamic probability, statistical thermodynamics, reversible and irreversible processes, entropy, thermodynamic laws and statistical relations, partition functions, Maxwell's distributions, phase transformation, Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein statistics, quantum statistics in classical limit, black-body radiation, conduction of electrons in metal, interacting particle system, lattice vibrations, virial coefficients, Weiss molecular field approximation. Lectures only.

## PHYS 436 Theoretical Physics III

 (3 credits)Prerequisite: PHYS 335 or equivalent. Partial differential equations, eigenfunction expansion and finite transforms, Laplace, Poisson, wave and diffusion equations, applications, special functions, boundary value problems, Sturm-Liouville
theory, Bessel functions, Legendre and Hermite polynomials, spherical harmonics, Green's function and applications, perturbation theory, (variational theory). Lectures only.
NOTE: Students who have received credit for PHYS 336 may not take this course for credit.

## PHYS 458 Advanced Electrodynamics

 (3 credits)Prerequisite: PHYS 254, 436. Electrostatic boundary-value problem and Green's function, Maxwell's equation, energy-momentum tensor, guided waves, dielectric wave guides, fibre optics, radiation static field, multipole radiation, velocity and acceleration field, Larmor's formula, relativistic generalization, radiating systems, linear antenna, aperture in wave guide, Thomson scattering, bremsstrahlung, Abraham-Lorentz equation, Breit-Wigner formula, Green's function for Helmholtz's equation, Noether's theorem. Lectures only.
NOTE: Students who have received credit for PHYS 456 or 457 may not take this course for credit.

PHYS 466 Nuclear Physics (3 credits) Prerequisite: PHYS 364; PHYS 477 previously or concurrently. Introduction, quantum mechanical properties of the nucleus, nuclear mass and shape, nuclear models, radioactivity, alpha, beta and gamma radiation, nuclear models, nuclear fission, parity violation, fundamental forces, strong and weak interaction, conservation laws, quark model and quantum chromodynamics. Lectures only.
NOTE: Students who have received credit for PHYS 465 may not take this course for credit.

PHYS 467 Solid State Physics (3 credits) Prerequisite: PHYS 477 previously or concurrently. Crystal structure of solids. Lattice dynamics. Specific heat. Electrons in metals. Free-electron theory of conduction. Band theory. Semi-conductors. Dielectric and magnetic properties of solids. Lectures only.

## PHYS 477 Quantum Mechanics I

(3 credits)
Prerequisite: PHYS 335, 346, 364. Introduction, state function, linear momentum, momentum space configuration, momentum space operators, free particle motion, Dirac notation, Schrödinger's equation, Hermitian operators, parity and symmetry of state function, harmonic oscillator, creation and annihilation operators, first and second order time independent perturbation theory.

## PHYS 478 Quantum Mechanics II

 (3 credits)Prerequisite: PHYS 477. Particle states, classification of symmetry, parity, numerical solution
of Schrödinger's equation, WKB approximation, variational method, alpha decay probability, time-dependent perturbation theory, systems of particles in one dimension, interacting particles, identical particles, Pauli exclusion Principle, Motion in three dimensions, hydrogen atom, angular momentum and spin, Pauli spin matrices, Dirac's relativistic wave equation.

## PHYS 480 Directed Readings in

 Theoretical Physics (3 credits)Prerequisite: Permission of the Department. A course for advanced students in which a special topic, selected in consultation with a faculty member, is studied in depth.

## PHYS 491 Experimental Microprocessor Interfacing (3 credits)

Prerequisite: PHYS 390; PHYS 391 or equivalent. Address decoding, multiplexing, and demultiplexing with TTL integrated circuits. Address decoding circuits, drivers, and receivers. Parallel, serial and non-TTL I/O. Breadboarding, wire-wrapping, and soldering techniques. The use of oscilloscopes, logic probes, and computers for circuit troubleshooting. Drawing schematic diagrams. Timing diagrams. Data sheets. Laboratory only.

## PHYS 494 Methods of Experimental Physics (3 credits)

Prerequisite: PHYS 290, 293, 394 or equivalent, or permission of the Department. A supervised research project which may include experiments in nuclear physics, laser and fibre-optics, solid state physics, ultrasonics, or thermal physics. A technical report is required.

## PHYS 495 Experimental Nuclear Physics

 (1 credit)Prerequisite: PHYS 394; PHYS 466 previously or concurrently. A laboratory course in nuclear physics. Experiments include gamma- and beta-ray spectroscopy, nuclear magnetic resonance, half-life determination, nuclear activities. Laboratory only, 10 experiments.

PHYS 498 Advanced Topics in Physics (3 credits)

PHYS 499 Advanced Topics in Physics ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.240 <br> POLITICAL SCIENCE 

| Faculty | Chair <br> REETA C. TREMBLAY, Professor | MABEN POIRIER EVERETT M. PRICE |
| :---: | :---: | :---: |
|  | Professors <br> HAROLD R. CHORNEY <br> HORST HUTTER <br> ARTHUR KROKER <br> GUY LACHAPELLE <br> DANIEL SALÉE <br> HARVEY SHULMAN | Assistant Professors AXEL HUELSEMEYR ANDRÉ LECOURS MICHAEL LIPSON CSABA NIKOLENYI NORRIN M. RIPSMAN FRANCESCA SCALA JULIAN SCHOFIELD PETER STOETT |
|  | Distinguished Professor Emeritus HENRY P. HABIB |  |
|  | Associate Professors MARCEL DANIS BROOKE JEFFREY |  |
| Location | Sir George Williams Campus Annex D, Room: 103 (514) 848-2105 |  |
| Department Objectives | The Department of Political Science offers a wide range of courses and programs to acquaint students with the complex workings of contemporary government and politics. The curriculum provides the theoretical foundations, analytical skills, and research methods for understanding the making of government policy as well as the underlying nature and purpose of political processes and institutions. The aim is to prepare well-rounded, concerned citizens for careers in the public service and the private sector, or for graduate or law school. |  |

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Political Science
12 POLI $202^{3}, 204^{3}, 205^{3}, 206^{3}$
Chosen from POLI $364^{3}, 371^{3}, 373^{3}, 384^{3}$
6 Chosen from POLI $392^{3}$ and $393^{3}$; or $372^{6}$
33 Chosen from at least three of the five groups in Political Science at the 300 or 400 level with a minimum of 12 credits at the 400 level
3 POLI $496^{3}$ (Honours Seminar)
42 BA Major in Political Science
12 POLI $202^{3}, 204^{3}, 205^{3}, 206^{3}$
30 Chosen from at least three of the five groups in Political Science at the 300 or 400 level with at least six credits at the 400 level

24 Minor in Political Science
12 POLI $202^{3}, 204^{3}, 205^{3}, 206^{3}$
12 Chosen from any of the five groups in Political Science. A minimum of nine credits must be taken at the 300 or 400 level.

The Department of Political Science offers the following programs of study: an Honours, a Major, and a Minor.
In order to maintain Honours status, students must obtain approval for their programs from the Honours adviser each year, prior to registration. In the second year of the Honours program, each student will choose a faculty adviser to advise the student on course selection and seminar research essays. The program of courses leading to a Minor in Political Science consists of 24 credits in the Department. The Minor is designed to provide an opportunity for students to make a combination with a Specialization, a Major, or Honours in another discipline. A student's Minor will be arranged in consultation with the Department of Political Science so that it relates to courses in the Major area of study.

| Core Program | P | OGRAM |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | POLI 202 | Introduction to Political Science (3 credits) Introduction to Canadian Politics (3 credits) | POLI 205 POLI 206 | Introduction to International Politics (3 credits) Introduction to Western Political Theory (3 credits) |
| Group 1: International Politics | POLI 213 | Contemporary Issues in Global Politics (3 credits) | POLI 338 | Foreign Policy Making and Diplomatic Relations (3 credits) |
|  | POLI 214 | Human Rights: An Overview | POLI 388 | Human Rights and International Justice (3 credits) |
|  | $\begin{aligned} & \text { POLI } 215 \\ & \text { POLI } 303 \end{aligned}$ | Global Politics (3 credits) Globalization, Identity and the State ( 3 credits) | POLI 391 | Middle East and Global Conflict (3 credits) |
|  | POLI 305 | International Political Economy | $\text { POLI } 419$ | Development (3 credits) |
|  | POLI 306 | State and Devolutio | $\begin{aligned} & \text { POLI } 421 \\ & \text { POLI } 422 \\ & \text { POLI } 423 \end{aligned}$ | Transnational Politics (3 credits) |
|  | POLI 307 | Regional Integration and the Nation State (3 credits) |  | Canadian Foreign Policy (3 credits) Peace Studies and Global |
|  | POLI 311 | International Public Law (3 credits) |  | Governance (3 credits) |
|  | POLI 315 <br> POLI 329 | International Organizations (3 credits) American Foreign Policy (3 credits) | POLI 486 | Advanced Seminar in International Relations (3 credits) |
|  | POLI 332 | Theories of International Relations (3 credits) |  |  |
| Group 2: <br> Comparative Politics | POLI 214 | Human Rights: An Overview (3 credits) | POLI 366 Politics of Africa ( 3 credits) POLI 379 Politics of Latin America ( 3 credits) |  |
|  | POLI 301 | Social Movements and Protest Politics (3 credits) | POLI 380 | Comparative Public Administration and Bureaucracy (3 credits) |
|  | POLI 310 <br> POLI 319 | Politics of the U.S. (3 credits) | $\begin{aligned} & \text { POLI } 395 \\ & \text { POLI } 424 \end{aligned}$ | Politics of the Middle East (3 credits) |
|  |  | European Politics and Government (3 credits) |  | India: State and Societal Relations (3 credits) |
|  | $\begin{aligned} & \text { POLI } 323 \\ & \text { POLI } 326 \end{aligned}$ | Politics of Eastern Europe (3 credits) | POLI 481 | Issues in Western European Politics |
|  |  | Canada (3 credits) | $\begin{aligned} & \text { POLI } 482 \\ & \text { POLI } 483 \end{aligned}$ | State and Society in Asia (3 credits) |
|  | POLI 328 | Public Policy and the Politics of Equality (3 credits) |  | State and Society in Latin America (3 credits) |
|  | POLI 333 P | Politics of Russia (3 credits)Politics of China (3 credits) | POLI 484 | Post-Communist Societies and |
|  | POLI 335POLI 336 |  |  | States in Transition (3 credits)Issues in Development and |
|  |  | Politics of China (3 credits) | POLI 485 |  |
|  | $\begin{aligned} & \text { POLI } 337 \\ & \text { POLI } 344 \end{aligned}$ | Politics of Japan (3 credits) |  | Democracy (3 credits) <br> Advanced Seminar in Comparative <br> Politics (3 credits) |
|  |  | Comparative Political Analysis (3 credits) | POLI 487 |  |
|  | POLI 352 | Comparative Urban Politics and Government (3 credits) |  |  |
| Group 3: <br> Canadian and Québec <br> Politics | POLI 211 | Québec Politics and Society/ La vie politique québécoise (3 credits) | POLI 350 | Canadian and Québec Law ( 6 credits) Canadian Federalism (3 credits) |
|  |  |  | $\begin{aligned} & \text { POLI } 351 \\ & \text { POLI } 355 \end{aligned}$ |  |
|  | POLI 308 | Canadian Politics and Society (3 credits) |  | Nationalism: The Canadian Experience (3 credits) |
|  | POLI 309 | Women and Politics in Canada (3 credits) | $\begin{aligned} & \text { POLI } 356 \\ & \text { POLI } 363 \end{aligned}$ | Canadian Political Parties (3 credits) Issues in Canadian Public Policy |
|  | POLI 318 | Citizen Participation in the Political Process ( 3 credits) | POLI 365 | (3 credits) Canadian Public Administration |
|  | POLI 322 | 2 Immigration and Citizenship | POLI 367 | (3 credits) |
|  |  | (3 credits) |  |  |
|  | POLI 326 | Women, Ethics and the Law in Canada (3 credits) | POLI 438 | (3 credits) |
|  | POLI 328 | Public Policy and the Politics of Equality ( 3 credits) |  | Canada (3 credits) <br> Advanced Seminar in Canadian and Québec Politics (3 credits) |
|  |  |  | POLI 488 |  |
|  | POLI 349 | Political and Social Theory and the City (3 credits) |  |  |

Group 4:
Public Policy and Administration

Group 5:
Political Theory

POLI 212 Politics and Economy (3 credits)
POLI 305 International Political Economy (3 credits)
POLI 320 Development of Western Legal Systems (3 credits)
POLI 328 Public Policy and the Politics of Equality (3 credits)
POLI 330 Principles of Public Administration (3 credits)
POLI 338 Foreign Policy Making and Diplomatic Relations (3 credits)
POLI 349 Political and Social Theory and the City (3 credits)
POLI 352 Comparative Urban Politics and Government (3 credits)
POLI 361 Government, Society and Public Purpose (3 credits)
POLI 362 Policy Analysis and Program Evaluation (3 credits)

POLI 363 Issues in Canadian Public Policy (3 credits)
POLI 365 Canadian Public Administration (3 credits)
POLI 367 Québec Public Administration (3 credits)
POLI 380 Comparative Public Administration and Bureaucracy (3 credits)
POLI 394 Globalization and Sustainable Development (3 credits)
POLI 461 The State and Economic Life (3 credits)
POLI 463 Government and Business in Canada (3 credits)
POLI 480 Comparative Public Policy (3 credits)
POLI 489 Advanced Seminar in Public Policy and Evaluation (3 credits)

POLI 326 Women, Ethics and the Law in Canada (3 credits)
POLI 349 Political and Social Theory and the City (3 credits)
POLI 361 Government, Society and Public Purpose (3 credits)
POLI 364 Hellenistic, Roman, Medieval Political Philosophy (3 credits)
POLI 368 Media, Technology and Politics (3 credits)
POLI 371 Early Modern Political Philosophy (3 credits)
POLI 372 Political Science and Scientific Method ( 6 credits)
POLI 373 Late Modern Political Philosophy (3 credits)
POLI 375 Nationalism: Origins, Operation, and Significance (3 credits)
POLI 384 Principles of Political Theory (3 credits)
POLI 386 Contemporary Liberalism and Its Critics (3 credits)

POLI 390 Ethics and Competing Political Perspectives ( 3 credits)
POLI 392 Survey and Research Design (3 credits)
POLI 393 Empirical Research Methods (3 credits)
POLI 401 The American Political Tradition (3 credits)
POLI 420 Contemporary French Political Thought (3 credits)
POLI 433 Critics of Modernity ( 3 credits)
POLI 435 Marxist and Neo-Marxist Political Thought (3 credits)
POLI 461 The State and Economic Life (3 credits)
POLI 471 Political Thought and Ideology in Canada (3 credits)
POLI 473 Political Theory and Historical Understanding (3 credits)
POLI 490 Advanced Seminar in Political Theory ( 3 credits)

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## N.B.: Explanation of course numbers and the core program:

1. Political Science Honours, Major students should normally complete the 12 -credit core program in their first year of full-time equivalent studies. MEP and ECP students must consult an academic adviser regarding the completion of the 12 -credit core.
2. Courses at the 200 and 300 level are open to all students in other departments and faculties. NOTE: 200-level courses are introductory, 300-level courses require the ability to do independent research and to write analytical essays.
3. Courses at the 400 level are taught as seminars and are generally open to students who have successfully completed 24 university credits, three of which are at the 300 level in Political Science.

## POLI 202 Introduction to Political Science (3 credits)

This course seeks to develop a broad basis from which to pursue further political inquiry. It offers an introductory examination of basic ideas regarding the state, power, authority, and systems of government. The course examines the diverse approaches to the specific study of political phenomena and provides a fundamental
understanding of political concepts.
NOTE: Students who have received credit for
POLI 200 or 201 or 203, or POLZ 202 may not take this course for credit.

## POLI 204 Introduction to Canadian Politics (3 credits)

This course is a basic introduction to the fundamental issues of Canadian public life and
the federal political system. It presents an overview of the constitution, institutions, political parties, electoral system, interest groups, and public opinion that represent the essential components of Canada's political culture and government.
NOTE: Students who have received credit for POLI 232 or 234 or 250 may not take this course for credit.

## POLI 205 Introduction to International Relations (3 credits)

This course introduces the principal themes, terms, concepts, and debates in the contemporary study of international relations. It provides an historical analysis of global politics and international economy.
NOTE: Students who have received credit for POLI 207 or 208 or 210 may not take this course for credit.

## POLI 206 Introduction to Western Political Theory (3 credits)

This course explores the foundations and basic principles of Western political theory in ancient Greece. It covers concepts such as democracy and oligarchy, justice and the good life by way of a careful reading of texts by Greek tragedians, historians, and philosophers. Texts studied in the course may include writings by Aeschylus or Sophocles and Thucydides, as well as Plato and Aristotle.
NOTE: Students who have received credit for POLI 270 or 271 may not take this course for credit.

## POLI 211 Québec Politics and Society/ La vie politique québécoise (3 credits)

This course is a study of the changing party structure and political issues in Québec and their relationship to constitutional, cultural, and economic factors.
On étudiera dans ce cours l'évolution structurelle des partis et des questions politiques au Québec en fonction de facteurs d'ordre constitutionnel, culturel et économique.
NOTE: Students who have received credit for POLI 353 may not take this course for credit. NOTE: The course will be offered in both English and French on a rotational basis. Please consult the Undergraduate Class Schedule for details.

POLI 212 Politics and Economy (3 credits)
This course is a general introduction to the interaction between politics and economy. It focuses on the impact of international and national economic structures on domestic political systems.

## POLI 213 Contemporary Issues in Global Politics (3 credits)

This course introduces students to major trends
and issues in world politics, such as human rights, refugees, ethnic conflict, environmental degradation, migration, and the peacekeeping role of the U.N.
NOTE: Students who have received credit for POLZ 213 may not take this course for credit.

## POLI 214 Human Rights: An Overview (3 credits)

This course introduces students to the historical origins of the concept of human rights; the international regime and the acceptance of several generations of rights such as civil and political rights, economic rights, group rights, and women's rights; the critiques of universalism and the problems of implementation of human rights. NOTE: Students who have received credit for this topic under a POLI 298 number may not take this course for credit.

POLI 215 Global Politics (3 credits)
This course introduces students to several theoretical perspectives related to global politics, and then examines current events. The focus is on conflict resolution, the impact of globalization, the roles of international organizations, and information technology.
NOTE: Students who have received credit for this topic under a POLI 298 number may not take this course for credit.

## POLI 298 Selected Topics in Political Science (3 credits) <br> POLI 299 Selected Topics in Political Science (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## POLI 301 Social Movements and Protest Politics (3 credits)

This course surveys the politics of selected contemporary movements such as environmentalism, peace, human rights, and feminism. It also provides a comparative analysis of the politics of dissent.

## POLI 303 Globalization, Identity and the State (3 credits)

This course examines the impact of globalization on state sovereignty and state autonomy, citizenship, and the underlying social and political processes. It addresses the issue of the changing nature of the nation state, and of identity-based politics.

## POLI 305 International Political Economy (3 credits)

This course examines the processes and issues in the politics of international economic relations. Topics covered include the role of multinational corporations, the rise of trading blocs, and the international division of labour.
NOTE: Students who have received credit for POLZ 305 may not take this course for credit.

POLI 306 State and Devolution (3 credits) This course compares the varied approaches to the devolution of power within the nation state occasioned by centralizing and decentralizing forces. State devolution is considered comparatively within both advanced industrial nations and the newly developed societies.

## POLI 307 Regional Integration and the

 Nation State (3 credits)This course studies international structural integration. Among the topics covered are: the dynamics of socio-political unification; theories of regionalism; supranational communities; common markets.
NOTE: Students who have received credit for POLI 317 may not take this course for credit.

## POLI 308 Canadian Politics and Society

 (3 credits)This course presents a comprehensive analysis of the major issues within the Canadian political process and considers the formal and informal institutions within which these issues are addressed. The political system is studied within the context of federalism, the electoral system, political parties, interest groups, public opinion, and the Canadian political culture.

POLI 309 Women and Politics in Canada (3 credits)
This course examines the role of women in Canadian politics at the federal, provincial, and local level. Historical, theoretical, and legal perspectives are examined and include the politics of racism; sexuality; community organizing; suffrage; and representation within formal political structures. It focuses on the diversity and development of the women's movement in Canada.
NOTE: Students who have received credit for POLI 275 may not take this course for credit.

POLI $310 \quad$ Politics of the U.S. ( 3 credits) This course surveys the structures and dynamics that inform the contemporary American political process. In addition to studying the traditional governmental institutions, the course aims to provide a foundation for understanding and critically analysing public opinion, the media and elections, federalism, political parties and interest groups, civil rights and civil liberties, and current issues in public policy.
NOTE: Students who have received credit for POLI 327 may not take this course for credit.

## POLI 311 International Public Law

 (3 credits)This course explores the meaning, effectiveness, and potential of interstate law. Among the topics covered are: the source and development of international law; the role of the International Court of Justice; sovereignty, territory, and natural resources; human rights violations, the state and war crimes tribunals; and international environmental law.

POLI 315 International Organizations (3 credits)
This course offers an overview of international institutions, including the League of Nations, the United Nations and its agencies, and regional organizations. The course considers whether such institutions are gradually replacing the state as providers of security, and examines theoretical orientations toward international regimes.

## POLI 318 Citizen Participation in the Political Process (3 credits)

 This course examines the causes and implications of political participation by individuals in Canada. Topics to be covered include citizen participation in election campaigns and elections, party organizations, protest movements, interest groups, lobbying and community associations. The course is organized to answer three basic questions: who participates in politics in Canada, why do they do so, and how do they choose to become involved?
## POLI 319 European Politics and Government (3 credits)

This course is a study of government and politics in selected European countries. It provides an analysis of political institutions, cultures, and processes.

## POLI 320 Development of Western Legal

 Systems (3 credits)This course is an overview of the major legal systems of the Western world, with special emphasis on the political decisions which influenced their growth and direction. It will study the development of Roman law, Romano-Germanic law, and English common law.

## POLI 322 <br> Immigration and Citizenship (3 credits)

This course examines the concepts of equality, rights, citizenship, and public interest and relates these themes to immigration policies in Canada.

## POLI 323 Politics of Eastern Europe

(3 credits)
This course studies the political process and institutions of the region, with a special focus on the recent transformation relating to economic problems, social structures, culture, and ethnic conflicts, as well as the role of governmental policies in domestic and foreign affairs.

## POLI 326 Women, Ethics and the Law in Canada (3 credits)

The course provides an analysis of applied ethics to the study of women and the law in Canada. The course identifies and examines ethical problems addressed by feminist theorists that arise in the realm of public law. Diverse approaches to the study of ethics and the efficacy of legal moral imperatives will be assessed. Ethical issues examined include human rights, family law, pornography, abortion,
and reproductive technologies.
NOTE: Students who have received credit for POLI 314 or 334 or POLZ 326 may not take this course for credit.

POLI 328 Public Policy and the Politics of Equality (3 credits)
This course reviews theoretical debates about the role of the state and the individual, collective and individual rights, integration, and the role of cultural diversity and identity. It examines selected policy demands of women, the poor, refugees, and other constituencies.
NOTE: Students who have received credit for POLI 316 or 334 may not take this course for credit.

## POLI 329 American Foreign Policy

 (3 credits)A course in the role of the United States in the world. The course considers the strategic position and superpower status of the U.S.A. through its foreign policy and its diplomatic relations with other countries.

## POLI 330 Principles of Public <br> Administration (3 credits)

This course examines the theory and practice of public administration in Canada. The nature of accountability in public sector environments is reviewed in order to study how policy is developed, implemented, and evaluated by bureaucracies, central agencies, and the legislative branches of government.
NOTE: Students who have received credit for POLI 260 may not take this course for credit.

## POLI 332 Theories of International Relations ( 3 credits)

This course is an introduction to the field of theories in international relations. It examines the development of knowledge from the classical paradigm to the most contemporary frames of analysis.

POLI 333 Politics of Russia (3 credits) This course is a study of the government and politics of the old and the new Russia, including emerging political, social, and economic structures, conflicts, and issues.

POLI 335 Politics of China (3 credits) This course focuses on political development of China. Topics include political mobilization, economic development, democracy, and the policy process.

## POLI 336 Politics of South Asia

 (3 credits)This course comparatively examines the political systems of South Asian countries in light of their socio-economic environment. Specific emphasis is placed on four countries - India, Pakistan, Bangladesh, and Sri Lanka. After a comprehensive study of the social and political structure of
these countries, agrarian and industrial policies are evaluated.
NOTE: Students who have received credit for POLI 340 may not take this course for credit.

POLI 337 Politics of Japan (3 credits) This course focuses on the political development of Japan since the end of World War II. Emphasis is placed on Japanese modernization, post-industrial politics, national security and constitutional pacifism.

## POLI $338 \quad$ Foreign Policy Making and

 Diplomatic Relations (3 credits)This course studies the substance, formulation, and implementation of foreign policy in selected countries. Special attention is paid to theoretical frameworks, inputs in decision-making, policy evaluation, diplomatic establishment, diplomatic negotiation, treaty-making, and conference diplomacy.
NOTE: Students who have received credit for POLI 412 may not take this course for credit.

## POLI 344 Comparative Political Analysis (3 credits)

This course deals with theoretical aspects of comparative politics. Topics include: terms and concepts of political analysis; theories of modernization and political development; dependency; corporatism, and state autonomy.

## POLI 349 Political and Social Theory and the City ( 3 credits)

This course examines the theoretical and ideological aspects of city government in historical and normative perspective.

## POLI $350 \quad$ Canadian and Québec Law (6 credits)

This course is an introduction to Canadian and Québec law. It emphasizes certain areas of criminal law, the Canadian Charter of Rights and Freedoms, and Québec civil law. An analysis is undertaken of the criminal court structure and criminal procedure, legal constitutional rights; the civil court structure and civil court procedures. NOTE: Students who have received credit for POLI 240 or 241 or 243 may not take this course for credit.

POLI $351 \quad$ Canadian Federalism ( 3 credits)
This course is a critical and analytical study of the theory of federalism, its principles, and techniques, and the response of Canadian federal systems to the demands of cultural dualism and regional pressures.

## POLI 352 Comparative Urban Politics and Government (3 credits)

This course deals with politics and government in selected Canadian cities, with comparative reference to cities elsewhere in the world.

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POLI 355 Nationalism: The Canadian Experience (3 credits)
This course examines the origins and develop-
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ment of nationalism and regionalism in Canada. It compares nationalist and regionalist sentiments in Canada with those of European countries.

## POLI 356 Canadian Political Parties

 (3 credits)This course provides a comprehensive examination of the origins and development of political parties in Canada at both the federal and provincial levels. Theories about party development, including one party dominance, brokerage politics and third party development, are examined in order to determine the efficacy of political parties.

## POLI 361 Government, Society and

Public Purpose (3 credits)
This course is an examination of the broad social, economic, political, and cultural forces shaping governmental decisions and policies. Particular attention is paid to the conflict between private and public concerns.

## POLI 362 Policy Analysis and Program Evaluation (3 credits)

This course provides a basic understanding of various approaches to policy planning and policy evaluation. Special emphasis is placed on various conceptual, methodological, and ethical issues emergent in the evaluation of governmental policy performance.

## POLI 363 Issues in Canadian Public Policy (3 credits)

The course examines alternative public policies in selected areas at the federal, provincial, and municipal levels in Canada. Policies analysed vary from year to year and include such areas as: social welfare, culture, education, language, environmental protection, energy conservation, urban renewal, and economic policy.

## POLI 364 Hellenistic, Roman, Medieval

Political Philosophy (3 credits) This course examines the political teachings of the Hellenistic schools such as the Academics, the Stoics, the Epicureans and the Skeptics. It traces these teachings through their reception in the republican theory of Cicero. It then follows their transformation into the political thinking of Christian authors such as St. Augustine. NOTE: Students who have received credit for POLI 270 or 273 may not take this course for credit.

## POLI 365 Canadian Public Administration (3 credits)

This course examines the organization and composition of the federal bureaucracy, the role of the bureaucracy in the making and implementation of public policy, patterns of recruitment, and the mechanisms of accountability and control.

## POLI 366 Politics of Africa (3 credits)

This course is a comparative study of political institutions and processes in selected African
countries. Countries selected may vary from year to year.
NOTE: Students should consult the departmental handbook for current topic.
NOTE: Students who have received credit for POLI 343 or 345 may not take this course for credit.

## POLI 367 <br> Québec Public Administration

 (3 credits)This course examines the organization and composition of Québec bureaucracy, the role of civil servants and the making and implementation of public policy, patterns of recruitment, and the mechanisms of accountability and control.

## POLI 368 Media, Technology and Politics (3 credits)

This course examines the impact upon politics of changes in technology and media, as well as discussing a diverse range of contemporary thinkers and their understanding of the digital future. Particular attention is paid to the age of electronic politics and its impact upon the actual practice of political power.
NOTE: Students who have received credit for POLI 472 may not take this course for credit.

## POLI 371 Early Modern Political <br> Philosophy (3 credits)

This course studies the origins of modern political thought in the thinkers of the Renaissance and the Reformation. It examines the rise of modern individualism in the writings of thinkers such as Machiavelli, Luther, Calvin, Bodin, Hobbes, and Harrington.

## POLI 372 Political Science and Scientific Method ( 6 credits)

This course focuses on contemporary interpretations of reasoning by natural scientists (i.e. empiricism, philosophical relativism and philosophical realism), and inquires into the implications of each of these interpretations for the study of the social sciences in general and political science in particular.
NOTE: Students who have received credit for POLI 382 or 383 or 474 may not take this course for credit.

## POLI 373 Late Modern Political

 Philosophy (3 credits)This course examines the philosophy of the Enlightenment and its critics, as well as the political thought of the early industrial period. The thinkers studied may include Locke, Montesquieu, Hume, Rousseau, and John Stuart Mill.

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## POLI 379 Politics of Latin America

 (3 credits)This course studies the political structures and processes of selected countries in South America, Central America, and the Caribbean. Countries selected may vary from year to year.
NOTE: Students should consult the departmental handbook for current topic.
NOTE: Students who have received credit for POLI 346 or 348 may not take this course for credit.

## POLI 380 Comparative Public Administration and Bureaucracy (3 credits)

This course deals with the theories and the development of public administration within a comparative context. Using a Weberian framework of bureaucracy, the course critically evaluates the formal-rational concepts of bureaucracy in relation to case studies of public services in Europe and the new bureaucratic structures developed in other countries.
NOTE: Students who have received credit for POLI 360 may not take this course for credit.

## POLI 384 Principles of Political Theory

 (3 credits)This course is an intensive study of a basic work by a major thinker such as Plato, Aristotle, Machiavelli, Hobbes or Hegel. It examines a major text such as Plato's Laws or Hegel's Phenomenology as well as commentaries on it, while attempting to explore systematically the issues and problems raised by the text and the interpretative traditions that follow from it.
NOTE: Students who have received credit for POLI 370 may not take this course for credit.

## POLI 386 Contemporary Liberalism and Its Critics (3 credits)

This course discusses the political, cultural, and social consequences of classical liberalism and neo-liberalism from the critical viewpoints of a range of contemporary political thinkers. Themes related to globalization, the meaning of the classical liberal idea of the individual in an increasingly "networked" society, and the triumph of the virtual class are important parts of the discussion.

## POLI 388 Human Rights and International Justice (3 credits)

This course surveys normative questions comprising human rights discourse, with an emphasis on international efforts to promote human rights standards. Topics include the role of the United Nations, the North-South debate, environmental security, the obligation of individuals and states, women's rights and the work of non-governmental organizations. Special consideration is given to the controversy between the universal and particular applications of human rights.
NOTE: Students who have received credit for POLZ 388 may not take this course for credit.
POLI 390 Ethics and Competing Political Perspectives (3 credits)
This course focuses on competing ethical
perspectives in contemporary political life. A wide range of ethical issues are discussed, which may include, for example, aboriginal claims, pay equity and violence in the media, civil liberties and the Internet, gender debates, reproductive technology, bio-tech and the fate of the "body" in the $21^{\text {st }}$ century. This course seeks to clarify the origins of political thought and the consequences in political practice of clashing ethical perspectives.
NOTE: Students who have received credit for POLZ 390 may not take this course for credit.

## POLI 391 Middle East and Global Conflict (3 credits)

This course is a study of the Middle East in transition, conflict and ideology in a global context of changing regional alliances. Topics include regional conflicts such as the ArabIsraeli conflict, the Iraq-Iran war, the Gulf crisis, foreign policy process, and the end of the cold war and its impact in the new millennium.

## POLI 392 Survey and Research Design <br> (3 credits)

This course studies the logic and methodology of political science research, the formulation of hypotheses, and the preparation of research design.
NOTE: Students who have received credit for POLI 374 or 376 may not take this course for credit.

## POLI 393 Empirical Research Methods (3 credits)

Prerequisite: POLI 392. This course presents quantitative methods of data collection and analysis, and introduces students to SPSS (statistical package for social science).
NOTE: Students who have received credit for POLI 374 or 378 may not take this course for credit.

## POLI 394 Globalization and Sustainable Development (3 credits)

This course is an introduction to the emerging field of global environmental politics. It surveys the present environmental crisis and the roles of states, international organizations, and civil society. Various case studies dealing with oceans, forests, fisheries, biodiversity, global warming, and others are used to illustrate the inherent complexity of transnational ecological issues in the era of globalization.
NOTE: Students who have received credit for POLI 385 or POLZ 394 may not take this course for credit.

## POLI 395 Politics of the Middle East

 (3 credits)This course is a comparative study of the government and politics of Arab North Africa, the Fertile Crescent, and the Arabian peninsula. Countries and topics covered may vary from year to year. NOTE: Students should consult the departmental handbook for current topic.

## POLI 398 Selected Topics in Political Science (3 credits) <br> POLI 399 Selected Topics in Political Science ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## POLI 401 The American Political Tradition (3 credits)

Prerequisite: See N.B. number (3). This course examines documents and texts that shape the origin, development, and relationship between American thought and the American political process. Selected readings from the Declaration of Independence, the Articles of Confederation, the Constitution, the Federalist Papers, Thomas Jefferson, Alexis de Tocqueville and John C. Calhoun, are reviewed.
NOTE: Students who have received credit for POLI 387 may not take this course for credit.

POLI 419 Strategic Studies (3 credits) Prerequisite: See N.B. number (3). This seminar deals with military studies and security policies. It covers the history of military strategies and theories of war.

## POLI 420 Contemporary French Political Thought (3 credits)

Prerequisite: See N.B. number (3). This seminar examines the tradition of French thought, through the writings of a single political theorist, or through a discussion of competing intellectual perspectives. Some of the leading figures discussed are Baudrillard, Deleuze, Guattari, Foucault, Lyotard, Barthes, Camus, Cizous, Irigaray, Sartre, and Virilio. The seminar explores French thought for its contribution to a critical and eloquent analysis of the post-modern scene.

POLI 421 Transnational Politics (3 credits) Prerequisite: See N.B. number (3). This seminar examines various alternatives such as regime theory, world systems theory, and emerging theories about global civil society. It examines liberal transnationalist thought from Kant to contemporary understandings of globalization, including ideas about technological convergence and renewed cultural divergence. The implications of non-state-centric perspectives for world politics and foreign policy are discussed.

## POLI 422 Canadian Foreign Policy

 (3 credits)Prerequisite: See N.B. number (3). This course examines Canada's foreign policy. In this seminar, particular emphasis is given to the decision-making process by which foreign policy is formulated and implemented, with particular reference to Canadian relations vis-à-vis the United States, the Commonwealth, and the developing countries.
NOTE: Students who have received credit for POLI 359 may not take this course for credit.

POLI 423 Peace Studies and Global Governance (3 credits)
Prerequisite: See N.B. number (3). This seminar focuses on the theory and practice of peace amongst nations. The course begins with a survey of analyses explaining the causes of aggression, war and peace, including theories of structural violence and revolution; nationalism and cosmopolitanism. It then examines the roles played by the state, international organizations, and peace movements, focusing on global and regional disarmament initiatives and peacekeeping.
NOTE: Students who have received credit for POLI 417 may not take this course for credit.

## POLI 424 India: State and Societal Relations (3 credits)

Prerequisite: See N.B. number (3). This seminar examines state-societal relations in post-independence India. Topics covered include electoral politics, religious nationalism, economic and social policies, and women and politics in India. NOTE: Students who have received credit for POLI 431 may not take this course for credit.

POLI 433 Critics of Modernity (3 credits) This seminar studies selected writings by major critics of modernity during the twentieth century. The authors studied may include Hannah Arendt, Albert Camus, Fyodor Dostoevsky, George Grant, Bertrand de Jouvenel, Alasdair MacIntyre, Jacques Maritain, Richard Niebuhr, Michael Oakeshott, Leo Strauss, Charles Taylor, and Eric Voegelin.
NOTE: Students who have received credit for POLI 470 may not take this course for credit.

## POLI 435 Marxist and Neo-Marxist Political Thought (3 credits)

Prerequisite: See N.B. number (3). This seminar undertakes a critical examination of the major texts of Marx and Engels, and a study of representative selections of Neo-Marxist thinkers such as Gramsci, Althusser, Miliband and Poulantzas.
NOTE: Students who have received credit for POLI 475 may not take this course for credit.

## POLI 438 Comparative Provincial Politics in Canada (3 credits)

Prerequisite: See N.B. number (3). This seminar analyses the regional political cultures in Canada; the development of provincial political parties and public administrations, the rise of third parties, and electoral behaviour and provincial public opinion.
NOTE: Students who have received credit for POLI 453 may not take this course for credit.

## POLI 461 The State and Economic Life

 (3 credits)Prerequisite: See N.B. number (3). This seminar examines the development of the welfare state and the forces contributing to the expansion of government intervention in the economy. Particu-
lar attention is devoted to the causal interdependence among values, political power, wealth, the general pattern of social stratification, and economic development.

## POLI 463 Government and Business in Canada (3 credits)

Prerequisite: See N.B. number (3). This seminar in public policy is designed to explore the relationship between government and business in Canada. Particular attention is paid to the formation and implementation of policy intended to promote and control enterprise, and the role of government as entrepreneur.

## POLI 471 Political Thought and Ideology

 in Canada (3 credits)Prerequisite: See N.B. number (3). This seminar explores key Canadian political ideologies: liberalism, conservatism, socialism, populism, and social democracy through the writings of important contributors, past and present, to the tradition of Canadian political thought. The authors studied may include George Grant, Harold Innes and Marshall McLuhan.

## POLI 473 Political Theory and Historical Understanding (3 credits)

Prerequisite: See N.B. number (3). This is a seminar on the relation between historical understanding and political thought. The authors studied may include Hannah Arendt, Michael Oakshott, J.G.A. Pocock, and Quentin Skinner.

## POLI 480 Comparative Public Policy

 (3 credits)Prerequisite: See N.B. number (3). This seminar is a comparative analysis of some of the major policy problems confronting both industrially advanced and developing societies. The underlying objective of the seminar is to critically evaluate how similar problems are approached by different political systems.
NOTE: Students who have received credit for POLI 462 may not take this course for credit.

POLI 481 Issues in Western European
Politics (3 credits)
Prerequisite: See N.B. number (3). This seminar examines the nature of politics of the states and societies of Western Europe, including the significance of their membership in the European Union. NOTE: Students who have received credit for POLI 432 may not take this course for credit.

POLI 482 State and Society in Asia (3 credits)
Prerequisite: See N.B. number (3). This seminar course examines the nature of politics in Asia. A specific focus is placed on selective issues of state-society relations, the emergence of new political forces and institutions in response to changes in the socio-economic structure of the region.
NOTE: Students who have received credit for POLI 434 may not take this course for credit.

POLI 483 State and Society in Latin America (3 credits)
Prerequisite: See N.B. number (3). This seminar examines the nature of politics in Latin America. A specific focus is placed on selective issues of state-society relations, and the emergence of new political forces and institutions in response to changes in the socio-economic structure of the region.

## POLI 484 Post-Communist Societies and States in Transition (3 credits)

Prerequisite: See N.B. number (3). This seminar reviews the post-communist states' transition to democracy and their state-formation. The seminar focuses on the interplay between the forces of nationalism, ethnicity, identity, and the transition to democratic structures.
NOTE: Students who have received credit for POLI 437 may not take this course for credit.

## POLI 485 <br> Issues in Development and

 Democracy (3 credits)Prerequisite: See N.B. number (3). This seminar focuses on the political and economic problems of the new nations. A particular emphasis is placed on understanding the process of development and state formation within a democratic context.

## POLI 486 Advanced Seminar in International Relations (3 credits) <br> Prerequisite: See N.B. number (3).

POLI 487 Advanced Seminar in Comparative Politics (3 credits)
Prerequisite: See N.B. number (3).
POLI 488 Advanced Seminar in Canadian and Québec Politics (3 credits)
Prerequisite: See N.B. number (3).

## POLI 489 Advanced Seminar in Public Policy and Evaluation (3 credits)

Prerequisite: See N.B. number (3).
POLI 490 Advanced Seminar in Political Theory (3 credits)
Prerequisite: See N.B. number (3).
Advanced seminars deal with selected topics in sub-fields of political science. Topics vary from year to year.
NOTE: Students should consult the departmental handbook for a description of these courses.

POLI 496 Honours Seminar (3 credits)
Prerequisite: Permission of the Department. This seminar involves the student in formulating an Honours research proposal, and the research and writing of an Honours paper. Topics of the seminar vary from year to year.

POLI 497 Internship (3 credits)
Prerequisite: Permission of the Department. The internship is a one-semester apprenticeship in
some aspect of public affairs and policy analysis. Placements may be drawn from all areas of possible employment, including private sector, government and community organizations. Students are asked to submit a written report which summarizes and evaluates their work experience.
NOTE: Eligible students should have completed 39 credits in Political Science and must have an excellent academic record. The undergraduate committee of the Department will determine the eligibility of the student and will approve the internship. Students should consult the Department for further information.

POLI 498 Advanced Topics in Political Science (3 credits)

Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

### 31.250 <br> PSYCHOLOGY

| Faculty | Chair <br> JUNE S. CHAIKELSON, Professor | Associate Professor of Applied Human Sciences and Psychology DOROTHY MARKIEWICZ |
| :---: | :---: | :---: |
|  | Distinguished Professors Emeriti ZALMAN AMIT TANNIS ARBUCKLE-MAAG CAMPBELL PERRY | Assistant Professors <br> ANDREAS ARVANITOGIANNIS <br> LUCIE BONNEVILLE <br> GEERT-JAN BOUDEWIJNSE |
|  | Professors <br> SHIMON AMIR | C. ANDREW CHAPMAN ROBERTO DE ALMEIDA |
|  | WILLIAM BUKOWSKI | PAUL D. HASTINGS |
|  | ANNA-BETH DOYLE DIANE POULIN-DUBOIS | KRISTINA KANDYBA KAREN Z. LI |
|  | DOLORES PUSHKAR | OLGA OVERBURY |
|  | ALEX E. SCHWARTZMAN | VIRGINIA B. PENHUNE |
|  | NORMAN SEGALOWITZ | ADAM RADOMSKY |
|  | LISA SERBIN | FRANCE SLAKO |
|  | PETER SHIZGAL | CARSTEN WROSCH |
|  | JANE STEWART |  |
|  | MICHAEL W. von GRÜNAU | Adjunct Professors |
|  | BARBARA WOODSIDE | THOMAS G. BROWN SAM BURSTEIN |
|  | Associate Professors | HALLIE FRANK |
|  | MICHAEL BROSS | ALAIN GRATTON |
|  | MICHAEL CONWAY | SHEILAGH HODGINS |
|  | MICHEL DUGAS | GABRIEL LEONARD |
|  | RICK GURNSEY | EVA LIBMAN |
|  | JAMES E. JANS | PIERRE-PAUL ROMPRE |
|  | REX B. KLINE | BRIAN SMITH |
|  | JEAN-ROCH LAURENCE | JACQUES TREMBLAY |
|  | SYDNEY B. MILLER | ROY A. WISE |
|  | DAVID MUMBY | CAMILLO ZACCIA |
|  | JAMES G. PFAUS |  |
|  | NATALIE PHILLIPS |  |
|  | DALE M. STACK |  |
| Location | Loyola Campus <br> Psychology Building, Room: PY 146 (514) 848-2222 |  |
|  |  |  |

Department
Objectives

Psychology is the scientific study of mental life, both its neurological bases and its manifestations in behaviour. Psychology also examines the factors that promote change in behaviour and mental activity.
Through teaching and research, the Department serves the community by furthering such knowledge and applying it to promote human welfare. The commitment of faculty members to research assures that students keep up with current developments. Their involvement in community programs keeps students and faculty alike in close touch with the practical application of the discipline.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
Students must apply to the departmental Honours adviser for formal admission to Honours programs. The application is usually made after completion of the first-year courses. Students must have a GPA of 3.5 in Psychology courses to qualify for entry to Honours.
For additional information concerning programs and courses, students should consult the Department.

33 Core Program
15 PSYC $310^{3}, 315^{3 *}, 320^{6}, 358^{3}$
9 Chosen from PSYC $322^{3}, 326^{3}, 331^{3}$, $371^{3}$
9 Chosen from PSYC $343^{3}, 346^{3}, 349^{3}$, $352^{3}$
*Students who have completed appropriate Quantitative Methods and Mathematics courses may qualify for exemption from PSYC 315. Application for exemption should be made to the Psychology Department. Students exempted from PSYC 315 will replace the credits with 300-level PSYC.

## 66 BA Honours in Psychology

33 Core Program
6 PSYC $311^{3}, 316^{3}$
6 Chosen from PSYC $344^{3}, 347^{3}, 350^{3}$, $353^{3}, 359^{3}, 361^{3}, 362^{3}, 365^{3}, 367^{3}, 368^{3}$, $369^{3}, 396^{3}$
6 Chosen from PSYC $323^{3}, 324^{3}, 327^{3}$, $332^{3}, 334^{3}, 373^{3}, 375^{3}, 377^{3}, 379^{3}, 380^{3}$, $391^{3}$
3 Psychology elective credits at the 300 or 400 level selected in consultation with a
Psychology program adviser
6 PSYC $421^{3}, 422^{3}$
6 PSYC $430^{6}$
66 BSc Honours in Psychology
33 Core Program
6 PSYC $311^{3}, 316^{3}$
6 Chosen from PSYC $344^{3}, 347^{3}, 350^{3}$, $353^{3}, 359^{3}, 361^{3}, 362^{3}, 365^{3}, 367^{3}, 368^{3}$, $369^{3}, 396^{3}$
6 Chosen from PSYC $323^{3}, 324^{3}, 327^{3}$, $332^{3}, 334^{3}, 373^{3}, 375^{3}, 377^{3}, 379^{3}, 380^{3}$, $391^{3}$
3 Psychology elective credits at the 300 or 400 level selected in consultation with a
Psychology program adviser
6 PSYC $421^{3}, 422^{3}$
6 PSYC 430 ${ }^{6}$
NOTE: In addition students must complete a minimum of 15 science credits outside the Department. The courses must be selected in consultation with a Psychology program adviser. NOTE: Students must have completed an appropriate program of science prerequisites in order to be admitted to BSc programs.

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66 BSc Honours in Psychology
    (Behavioural Neuroscience Option)
33 Core Program
6 PSYC 3113, 316 
12 Chosen from PSYC 359 3, 361', 362',
    365}\mp@subsup{}{}{3},36\mp@subsup{7}{}{3},36\mp@subsup{8}{}{3},36\mp@subsup{9}{}{3
12 PSYC 4213, 422 3},43\mp@subsup{0}{}{6
3 Psychology elective credits at the 300 or
    4 0 0 ~ l e v e l ~ s e l e c t e d ~ i n ~ c o n s u l t a t i o n ~ w i t h ~ a ~
    Psychology program adviser
    An additional 21 Science credits as
    specified below:
9 CHEM 2213', 2223, 271'3
3 BIOL 2253 or 226 3
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(Behavioural Neuroscience Option)
PSYC $311^{3}$
12 Chosen from PSYC $359^{3}, 361^{3}, 362^{3}$, $365^{3}, 367^{3}, 368^{3}, 369^{3}$
12 PSYC $421^{3}, 422^{3}, 430^{6}$
3 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology program adviser

An additional 21 Science credits as specified below:
9 CHEM $221^{3}, 222^{3}, 271^{3}$
3 BIOL $225^{3}$ or $226^{3}$

9 Chosen from BIOL $225^{3}, 226^{3}, 227^{3}$,
$261^{3}, 266^{3}, 321^{3}, 335^{3}, 364^{3}, 367^{3}, 383^{3}$, $435^{3}, 462^{3}, 483^{3}$; CHEM $478^{3}$

60 BA Specialization in Psychology
33 Core Program
3 PSYC $316^{3}$
6 Chosen from PSYC $344^{3}, 347^{3}, 350^{3}$, $353^{3}, 359^{3}, 361^{3}, 362^{3}, 365^{3}, 367^{3}, 368^{3}$, $369^{3}, 396^{3}$
6 Chosen from PSYC $323^{3}, 324^{3}, 327^{3}$, $332^{3}, 334^{3}, 373^{3}, 375^{3}, 377^{3}, 379^{3}, 380^{3}$, $391^{3}$
12 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology program adviser

## 60 BSc Specialization in Psychology

 (Behavioural Neuroscience Option)33 Core Program
3 PSYC $316^{3}$
12 Chosen from PSYC $359^{3}, 361^{3}, 362^{3}$, $365^{6}, 367^{3}, 368^{3}, 369^{3}$
12 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology program adviser
An additional 21 Science credits as specified below:
9 CHEM $221^{3}, 222^{3}, 271^{3}$
3 BIOL $225^{3}$ or $226^{3}$
9 Chosen from BIOL $225^{3}, 226^{3}, 227^{3}$, $261^{3}, 266^{3}, 321^{3}, 335^{3}, 364^{3}, 367^{3}, 383^{3}$, $435^{3}, 462^{3}, 483^{3}$; CHEM $478^{3}$

60 BSc Specialization in Psychology
33 Core Program
3 PSYC $316^{3}$
6 Chosen from PSYC $344^{3}, 347^{3}, 350^{3}$, $353^{3}, 359^{3}, 361^{3}, 362^{3}, 365^{3}, 367^{3}, 368^{3}$, $369^{3}, 396^{3}$
6 Chosen from PSYC $323^{3}, 324^{3}, 327^{3}$, $332^{3}, 334^{3}, 373^{3}, 375^{3}, 377^{3}, 379^{3}, 380^{3}$, $391^{3}$
12 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology program adviser
NOTE: In addition students must complete a minimum of 15 science credits outside the Department. The courses must be selected in consultation with a Psychology program adviser. NOTE: Students must have completed an appropriate program of science prerequisites in order to be admitted to BSc programs.

## 42 BA Major in Psychology

33 Core Program
9-12 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology program adviser
42 BSc Major in Psychology
33 Core Program
9-12 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology program adviser
NOTE: Students must have completed an
appropriate program of science prerequisites in order to be admitted to BSc programs.

## 24 Minor in Psychology <br> 6* PSYC 200 <br> 6 PSYC $310^{3}, 315^{3}$

12 Psychology elective credits with a minimum of nine credits at the 300 level selected in consultation with a Psychology program adviser
*Students exempted from PSYC 200 will replace the credits with 300-level PSYC.

NOTE: Students in programs leading to the BSc degree are reminded that PSYC 320 and PSYC 391-395 do not count as science credits. All other 300- and 400-level Psychology courses count as science credits.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## PSYC 200 Introductory Psychology

 (6 credits)This comprehensive survey course introduces the student to the phenomena and terminology encountered in a number of areas of scientific psychology. Topics covered include basic mechanisms of the receptors and nervous system, memory, motivation, perception, learning, abnormal psychology, personality, cognition, and social aspects of behaviour. Lectures and conferences.
NOTE: Students who have received credit for or exemption from Introductory Psychology at cégep or elsewhere may not take this course for credit.
NOTE: Students entering all PSYC programs except the Minor who have not received credit for or exemption from Introductory Psychology at cégep or elsewhere must take this course, but not for Psychology program credit. NOTE: Students who have received credit for PSYC 200 or equivalent may not take MANA 213 for credit

## PSYC 249 Perception and Cognition in Daily Life (3 credits)

This course introduces topics in perception and cognition with an emphasis on how humans acquire, store, and use information in real-world contexts. Topics covered include reading, perceiving objects, art and motion pictures, processing language and music, solving problems and planning actions.
NOTE: Students who have received credit for PSYZ 249 or for this topic under a PSYC 298 number may not take this course for credit.

PSYC 280 Adolescence (3 credits) This course deals with various aspects of adolescence including such topics as physical change, sexual and sex-related behaviours, cognitive growth, and lifestyles.
NOTE: Students registered in a Psychology program may not take this course for credit. NOTE: Students who have received credit for PSYC 379 or 391 may not take this course for credit.

PSYC 281 Learning Disabilities (3 credits)
This course deals with selected aspects of theory and practice related to learning disabilities including perceptual and motor
disabilities, language disabilities, and methods of diagnosis and remediation.
NOTE: Students registered in a Psychology program may not take this course for credit. NOTE: Students who have received credit for PSYC 377 or 392 may not take this course for credit.

## PSYC 283 Emotional Development

 (3 credits)This course focuses on emotional development in childhood. Topics that may be considered include prenatal and genetic influences on emotion, attachment formation, effects of alternative child care, role of father, and poverty. The normal development of anxiety, fear, and affection is discussed.
NOTE: Students registered in a Psychology program may not take this course for credit.

## PSYC 284 Socialization (3 credits)

This course examines socialization processes during infancy, childhood, and adolescence. The effects on socialization of factors such as family structure, disciplinary techniques, and social class are considered. The development of social skills, morality, pro-social behaviour, and aggression are examined.
NOTE: Students registered in a Psychology program may not take this course for credit.

## PSYC 286 Psychology of Leisure

 (3 credits)This course explores the rapidly developing psychologically-oriented theory and research on leisure and its meaning and importance for the individual. Topics that may be considered include motivation for leisure activities, planning for leisure and/or retirement, therapeutic value of leisure, new conceptions of work and leisure, leisure and self-development.
NOTE: Students registered in a Psychology program may not take this course for credit.

SELECTED TOPICS IN PSYCHOLOGY The 200-level Selected Topics courses (PSYC 297; PSYC 298; PSYC 299) are designed as elective courses for students who are not registered in a Psychology program. These courses cover a wide variety of areas of contemporary interest. The particular topics vary from session to session and the material is
dealt with in a manner appropriate for students who have minimal formal background in psychology. Students should consult the Psychology Department Course Guide (published yearly) to find out the topic titles for a particular session. NOTE: Students registered in a Psychology program may not take these courses for credit. The Department also offers 300 - and 400 -level topic courses for students registered in Psychology programs. (See below).

## PSYC 297 Selected Topics in Psychology (3 credits)

PSYC 298 Selected Topics in Psychology (3 credits)

PSYC 299 Selected Topics in Psychology (6 credits)

## PSYC 310 Strategies of Inquiry in

 Psychology (3 credits)Prerequisite: PSYC 200 or equivalent; PSYC 315 previously or concurrently. The course describes how information is obtained in modern, scientifically oriented psychology. The variety of means used to understand psychological phenomena and processes is elaborated with reference to particular areas in psychology. Observational, experimental, and correlational techniques are presented in the context of ongoing research. The course emphasizes a conceptual understanding of the procedures that are necessary for developing and evaluating the explanations and theories that we construct to make sense of the diverse phenomena that constitute the domains of modern psychology. Lectures and laboratory.

## PSYC 311 Research Experience in Psychology (3 credits)

Prerequisite: PSYC 310; PSYC 315; PSYC 316 previously or concurrently, and permission of the Department. The course introduces students to more advanced methodological issues. The course provides experience in the critical evaluation of research design and methodology. Students must design, conduct, analyse, and present a report on a brief research project. The course is primarily intended for students who are preparing for graduate school. Lectures and laboratory.

PSYC 315 Statistical Analysis I (3 credits) This course is an introduction to statistics, presented in an experimental psychology context. Topics dealt with include frequency distributions, measures of central tendency and dispersion, the normal curve, correlation, elementary probability theory, an introduction to hypothesis testing, and the $t$ test.
NOTE See §200.7
NOTE: Students who have completed cégep
QM 360-300 (Quantitative Methods) and MATH 201-300 (Complementary Topics in Mathematics) with $75 \%$ or better grades can be
exempt from PSYC 315. Exemptions may be granted on the basis of other courses.
Application for exemption should be made to the Psychology Department.

PSYC 316 Statistical Analysis II (3 credits) Prerequisite: PSYC 310; PSYC 315. This course builds on the experience derived from PSYC 310 and 315 to advance the student's understanding of hypothesis testing and statistical inferences. The material dealt with includes non-parametric statistics, the chi-square and F-distribution, introductory analysis of variance, and various correlational techniques. NOTE See §200.7

## PSYC 317 Multivariate Statistical

 Procedures (3 credits)Prerequisite: PSYC 310; PSYC 315; PSYC 316, and permission of the Department. Advanced statistical techniques are presented with an emphasis on procedures that allow the use of multiple independent or dependent variables. Examples of specific techniques to be discussed in the course include partial and multiple regression, the analysis of covariance (ANCOVA), and multivariate analysis of variance (MANOVA). The course includes a computer laboratory in which students practice the computation of various procedures with real data sets. Lectures and laboratory.

## PSYC 318 Measurement of Individual Differences (3 credits)

Prerequisite: PSYC 310; PSYC 315. A consideration of the general theory of psychological measurement and its application in the development and use of various psychometric instruments such as achievement, intelligence, aptitude, personality, and interest tests. Derived scores, norms, reliability, and validity of these instruments are discussed in the context of general measurement problems in psychology. NOTE: Students who have received credit for PSYC 384 may not take this course for credit.

## PSYC 320 Modern Psychology in Historical Perspective

 (6 credits)Prerequisite: Introductory Psychology or equivalent. The course deals with the historical background of psychology from ancient and medieval times up to the present. Early contributions to psychology from the fields of philosophy, physics, physiology, and psychophysics are presented and related to the various schools of psychological thought from the late-nineteenth century to the modern era.

## PSYC 322 Fundamentals of Abnormal

 Psychology (3 credits) Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. The course deals with major concepts and issues of abnormal psychology in humans (stigma, traits vs. states, ethics). It studies the major scientific models of diagnosis, etiology, assessment and therapy. It presentsthe major disorders of the five axes of the DSM system. Social, learning, cognitive, biomedical and psychodynamic approaches to major clinical disorders are studied with emphasis on research and methodology throughout.
NOTE: Students who have received credit for PSYC 339 may not take this course for credit.

## PSYC 323 Psychopathology: Behaviour

 Disorders (3 credits)Prerequisite: PSYC 322. The course presents a focused and thorough treatment of issues in one category of adult psychopathology. Advanced contemporary research and theory covering a wide range of behaviour disorders is presented. Topics studied include disorders of personality, anxiety, mood, psychosexuality, eating, and lifeadjustment. Post-traumatic, psychosomatic, somatoform, and dissociative disorders may also be discussed.
NOTE: Students who have received credit for PSYC 339 may not take this course for credit.

## PSYC 324 Psychopathology: Psychotic and Organic Disorders (3 credits)

Prerequisite: PSYC 322. The course presents a focused and thorough treatment of issues in organic-related adult psychopathology. The course deals with advanced contemporary research and theory of various clinical disorders such as the psychoses, schizophrenias and schizophreniform disorders, degenerative disorders, aging disorders, dementias, substance-abuse disorders and psychophysiological disorders. NOTE: Students who have received credit for PSYC 339 may not take this course for credit.

PSYC 325 Eating Disorders (3 credits) Prerequisite: PSYC 310; PSYC 315. A number of eating problems are reviewed including those resulting in obesity, anorexia nervosa, and/or bulimia. Eating problems are examined from a number of perspectives with emphasis given to developmental, physiological, and social learning theories. For example, social learning theory will be related to differential development of eating problems in men and women. Treatment of eating problems is studied in relation to behavioural, psychodynamic, and physiological interventions.
NOTE: Students who have received credit for PSYC 398B may not take this course for credit.

## PSYC 326 Theories of Personality

 (3 credits)Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. The organization, functioning, and development of personality are discussed from the point of view of the major current theories. Evidence from experiments and field studies are discussed. Socio-economic, cultural, and biological factors may also be considered.
NOTE: Students who have received credit for PSYC 336 may not take this course for credit.

PSYC 327

## Contemporary Issues in

 Personality (3 credits)Prerequisite: PSYC 326. The course will critically examine the research and theory concerning a number of selected issues of contemporary interest in the area of personality. NOTE: Students who have received credit for PSYC 336 may not take this course for credit.

PSYC 329 Behaviour Genetics (3 credits) Prerequisite: PSYC 310; PSYC 315. The discipline of behavioural genetics provides a meeting place for the behavioural sciences and genetics. The course provides an introduction to modern ideas concerning the complementary roles of hereditary and environmental influences in the shaping of behaviour. Basic concepts including the foundations of population genetics, transmission genetics and heritability are reviewed. Modern techniques, such as adoption studies and twin studies, are considered. The influence of genetics in areas such as cognition, personality, and psychopathology is explored.

PSYC 331 Social Psychology (3 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. The behaviour of the individual as a member of a larger grouping or society is dealt with. The study of the social influences on individuals or groups involves consideration of topics such as attitude change and development, intra-group communication and problem-solving, leadership, prejudice, development of social movements and cults. NOTE: Students who have received credit for PSYC 333 may not take this course for credit.

## PSYC 332 The Self in Social Context

 (3 credits)Prerequisite: PSYC 331. The course addresses the wide range of theoretical and empirical approaches to the self in contemporary social psychology. Self-esteem and self-concept are addressed in terms of personal and social norms, affective experience, and interpersonal behaviour. NOTE: Students who have received credit for PSYC 333 may not take this course for credit.

## PSYC 334 Emotion in the Social Context

 (3 credits)Prerequisite: PSYC 331. This course addresses models of emotion, individual differences in emotion and mood, and how emotion influences attention, memory, evaluation, and behaviour in the social domain.
NOTE: Students who have received credit for PSYC 333 may not take this course for credit.

## PSYC 343 Motivation and Emotion I

 (3 credits)Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. This course reviews and evaluates theories and empirical findings concerning motivation and emotion. Topics include the study of motivation and emotion in historical perspective, the biological and evolutionary
bases of motivation and emotion, drive, arousal, and incentive theories of motivation. NOTE: Students who have received credit for PSYC 342 may not take this course for credit.

## PSYC 344 Motivation and Emotion II

 (3 credits)Prerequisite: PSYC 343. This course is a continuation of PSYC 343; it presents a more focused and thorough treatment of selected topics in motivation and emotion. These may include sleep, hunger, sex, aggression, altruism, achievement, pain, fear, and play. Different sections of the course may cover different sets of topics.
NOTE: Students who have received credit for PSYC 342 may not take this course for credit.

PSYC 346 Learning I (3 credits) Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. This course reviews and evaluates theories and empirical findings concerning basic mechanisms of learning and memory. Topics include the study of learning in historical perspective, Pavlovian conditioning, operant conditioning, reinforcement, stimulus control of behaviour, types of memory, and behavioural paradigms used in contemporary research on learning and memory.
NOTE: Students who have received credit for PSYC 345 may not take this course for credit.

PSYC 347 Learning II (3 credits)
Prerequisite: PSYC 346. This course is a continuation of PSYC 346; it presents a more focused and thorough treatment of more advanced topics in learning. These may include developmental aspects of learning, animal memory and cognition, human applications of conditioning principles, biological constraints on learning, or the physiology of learning and memory. Different sections of the course may cover different sets of topics.
NOTE: Students who have received credit for PSYC 345 may not take this course for credit.

## PSYC 349 Sensation and Perception I

 (3 credits)Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. Physiological and psychological bases of sensation and perception. Topics such as pitch perception, colour vision, perception of movement, size, and distance are included. The areas of sensation and perception are integrated through a human informationprocessing approach to the understanding of audition, vision, and other modalities.
NOTE: Students who have received credit for PSYC 348 may not take this course for credit.

PSYC 350 Sensation and Perception II (3 credits)
Prerequisite: PSYC 349. A continuation of PSYC 349. This course examines current topics in the area of sensation and perception with an emphasis on recent research and developments
in vision and audition, including areas such as colour vision, space perception, the anatomical and physiological bases of perception, the perception of illusions, and motion perception. Different sections of this course may cover different sets of topics.
NOTE: Students who have received credit for PSYC 348 may not take this course for credit.

PSYC 352 Cognition I (3 credits) Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. A course that introduces the general area of cognitive psychology through the presentation and discussion of the theoretical and experimental foundations for our current understanding of how humans acquire and use knowledge. Current research findings and theories in the areas of pattern recognition, attention, memory, and imagery are surveyed. Following this introductory course, students should have the necessary background to pursue advanced topics in cognition. NOTE: Students who have received credit for PSYC 351 may not take this course for credit.

## PSYC 353 Cognition II (3 credits)

Prerequisite: PSYC 352. A continuation of PSYC 352 that presents thorough treatments of topics such as cognitive development, psycholinguistics, concept acquisition, reading, speech perception, problem-solving, and reasoning. Different sections of this course may cover different sets of topics.
NOTE: Students who have received credit for PSYC 351 may not take this course for credit.

## PSYC 358 Fundamentals of Behavioural

 Neurobiology ( 3 credits)Prerequisite: BIOL 200 or BIOL 201 or BIOL 202
or cégep Biology 301 or 101-NYA or cégep Biology 921. The purpose of this course is to introduce students to the neural substrate of behaviour. Topics include the structure and function of neurons as well as neural communication, an introduction to neuro-anatomy and endocrinology, the processing of sensory information, and the control of movement. NOTE: Students who have received credit for BIOL 383, PSYC 357, 360 or 363 may not take this course for credit.

## PSYC 359 Neuropsychology

 (3 credits)Prerequisite: PSYC 358. This course provides a general introduction to human neuropsychology. The topics discussed include principles of brain organization and function, human neuroimaging and recording techniques, specialized functions of the lobes of the cerebral cortex, and selected neurological disorders. The emphasis is on how these issues can be related meaningfully to human behaviour and higher cognitive processes. NOTE: Students who have received credit for PSYC 363 may not take this course for credit. NOTE: Students who have received credit for PSYC 357 or 360 may take this course for credit.

## PSYC 361 Neurobiology of Drug

 Dependence (3 credits) Prerequisite: PSYC 310; PSYC 315; or six credits from among PSYC 358, 359, 362, 365, 367. This course focuses on the behavioural and pharmacological mechanisms underlying the phenomenon of drug dependence. Concepts such as physical and psychological dependence, tolerance, reinforcement, and aversion are discussed. In addition the role of these concepts in the development of new treatment procedures is assessed.
## PSYC 362 Neurobiology of Learning and Memory (3 credits)

Prerequisite: PSYC 346; PSYC 358; or permission of the Department. A number of mechanisms subserving learning and memory are investigated, including models based on relatively simple nervous systems, e.g., conditioning in Aplysia, as well as more complex systems, e.g., the neuronal mechanisms mediating eyeblink conditioning in the rabbit and the neuronal pathways that mediate reinforcement. Other topics may include the anatomical bases of memory, including the role of the hippocampus in spatial memory and the role of the NMDA receptor in learning and memory. NOTE: Students who have received credit for PSYC 357 or 360 may not take this course for credit.
NOTE: Students who have received credit for PSYC 363 may take this course for credit.

## PSYC 365 Neurobiology of Sensation and Perception (3 credits)

Prerequisite: PSYC 349; PSYC 358; or permission of the Department. The course examines the relation between the structure of sensory systems and perceptual function. Some of the topics addressed are how the structure of the eye and ear determines how and what we see and hear; the modularity of cortical organization; segregation and integration of visual information; PDP and other models; bottom-up and top-down processing; the reconstruction of the perceptual world.
NOTE: Students who have received credit for PSYC 357 or 360 may not take this course for credit.
NOTE: Students who have received credit for PSYC 363 may take this course for credit.

## PSYC 367 Neurobiology of Motivated Behaviours (3 credits)

Prerequisite: PSYC 343; PSYC 358; or permission of the Department. The course examines the neural mechanisms mediating motivated behaviour. Topics addressed include the following: pleasure and pain; ingestive behaviour; sexual and reproductive behaviour; aggression; temperature regulation; sleep, arousal, and biological rhythms.
NOTE: Students who have received credit for PSYC 357 or 360 may not take this course for credit.
NOTE: Students who have received credit for PSYC 363 may take this course for credit.

## PSYC 368 Neurobiology of Sexual

Differentiation (3 credits)
Prerequisite: PSYC 358. This course deals with the genetic and hormonal influences that lead to the sexual differentiation of the brain and behaviour. Mechanisms of chromosomal and neuroendocrine effects on the body and neural circuits, and plasticity are discussed. Animal differentiation as well as normal and abnormal human differentiation are examined.
NOTE: Students who have received credit for PSYC 390 may not take this course for credit.

## PSYC 369 Hormones and Behaviour (3 credits)

Prerequisite: PSYC 310 and PSYC 315 previously or concurrently; PSYC 358. The course deals with the role of hormones in integrating the activity of various neural, endocrine, and sensory systems to bring about organized, purposeful behaviour. Topics discussed include the reproductive, sexual, or environmentally adaptive systems, with treatment of material ranging from the molecular to the behavioural level.

## PSYC 371 Fundamentals of Life-Span

 Development (3 credits)Prerequisite: PSYC 310 and PSYC 315
previously or concurrently. This course provides a broad survey of psychological research and theories about human development, covering the periods of infancy, childhood, adolescence, early adulthood, midlife, and late life. The life-span perspective emphasizes the interaction of physical, cognitive, and socioemotional domains. The focus is on the normative course of development, although aspects of abnormal development are briefly reviewed. The course also introduces the specific research designs and methods relevant to developmental research. This course serves as preparation for the in-depth study of each life period offered in subsequent courses.
NOTE: Students who have received credit for PSYC 330 or 370 may not take this course for credit.

## PSYC 373 Infancy ( 3 credits)

Prerequisite: PSYC 370 or 371 . The course provides a comprehensive account of psychological development in infancy. Aspects of infant development such as physical, perceptual, cognitive, verbal, emotional, and social development are covered. Theoretical perspectives and research methods specific to the study of infant development are emphasized.
NOTE: Students who have received credit for PSYC 330 may not take this course for credit.

## PSYC 375 Development During

## Childhood (3 credits)

Prerequisite: PSYC 371. Major analysis of the basic processes of development during the early childhood and school-age periods. A broad range of theoretical positions and methodological strategies are presented. Emphasis is on physi-
cal, cognitive, emotional, social, and personality development and the origins of individual differences in adjustment and well-being. Particular attention is given to cultural variability in development and to developmental differences between girls and boys.
NOTE: Students who have received credit for PSYC 330 or 370 may not take this course for credit.

## PSYC 377 Abnormal Development During Childhood (3 credits)

Prerequisite: PSYC 370 or 371 . Using principles of developmental and clinical psychology, this survey course focuses primarily on understanding the pathways to abnormal adjustment in childhood. The course covers the roots of social competence/deviance in the early experience and temperament of the child; the assessment of social and cognitive deficits and the efficacy of interventions. Applications to populations of children with special problems are examined. Examples of the special problems include hyperactivity, conduct disorders, overanxiety, learning disabilities, mental retardation, and autism.

## PSYC 379 Adolescent Development (3 credits)

Prerequisite: PSYC 370 or 371 . The course deals with various aspects of development in adolescence. Such topics as hormonal and physical changes, cognitive development (Piagetian, information-processing and psychometric views), the peer group, friendships, parent-adolescent interactions, sex roles and identity formation, sexuality, delinquency, drug abuse, suicide, and psychological disorders in adolescents may be discussed. Whenever possible, developmental issues in adolescence are considered from a cross-cultural as well as historical perspective.

PSYC 380 Aging (3 credits) Prerequisite: PSYC 370 or 371 . This course covers recent developments in the psychology of aging with emphasis on research aspects. The topics examined include methodological considerations, the implications of physiological changes due to age on people's behaviour, and the influence of aging on personality, cognitive processes, coping styles, sex roles, and adjustment. The class will be asked to consider the extent to which psychological changes associated with age are caused by biological processes and by social processes.

## PSYC 381 Scaling (3 credits)

Prerequisite: PSYC 310; PSYC 315. The theoretical basis and application of scaling methods in psychophysics and social psychology are studied. Quantitative scales for the measurement of attitudes and sensations are derived and constructed. Other topics that may be covered include subjective estimate methods, the law of comparative judgement, unfolding techniques, and signal-detection theory.

## PSYC 385 Personnel Psychology

(3 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. This course focuses on the contributions of psychology to several human resource considerations in organizations. Topics include personnel selection, training methods, personnel appraisal, and career development. Other relevant topics may be discussed depending on student interest. This is an applied area of psychology and therefore the interplay between theory, research, and application is stressed. NOTE: Students who have received credit for PSYC 375 may not take this course for credit.

## PSYC 386 Organizational Psychology (3 credits)

Prerequisite: PSYC 310 and PSYC 315
previously or concurrently. The theoretical and research interests of industrial psychologists centre on such topics as employee motivation and job satisfaction, leadership and communication in organizations, and organizational development. Other related topics may be covered. This is an applied area of psychology and therefore the interplay between theory, research, and application is stressed. NOTE: Students who have received credit for PSYC 375 may not take this course for credit.

## PSYC 391 Gender in the Social Context

 (3 credits)Prerequisite: PSYC 331. The course deals with the issue of how the biological categories of female and male are modified in the social context. It examines the social transformation of biological females and males into gendered individuals from a theoretical and empirical perspective. The development of gender identity, gender role, and the sex vs. gender differences in various areas of psychological functioning such as cognitive behaviour, mental health, and social behaviours are analysed, and their underlying mechanisms examined.
NOTE: Students who have received credit for PSYC 390 may not take this course for credit.

PSYC 392 Health Psychology ( 3 credits) Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. Psychological issues in the promotion of health and the treatment of illness are explored. Theoretical as well as empirical contributions to the study of health promotion and disease etiology are scrutinized. Biomedical and psychosocial etiological models of health and disease are examined from epidemiological and psychological perspectives. NOTE: Students who have received credit for PSYC 364 may not take this course for credit.

## PSYC 393 Contemporary Issues in Health Psychology (3 credits)

Prerequisite: PSYC 392. This course offers a more focused treatment of selected advanced topics in health psychology. Topics covered may include the following: the relationship between
behavioural reactivity and cardiovascular health, illness behaviour, psychological aspects of pain, the role of aerobic exercise in health promotion, psychosocial aspects of substance abuse, and relapse prevention strategies for harm reduction. NOTE: Students who have received credit for PSYC 364 may not take this course for credit.

## PSYC $395 \quad$ Psychology of Language and Communication (3 credits)

Prerequisite: PSYC 310; PSYC 315; or a minimum of three credits from among COMS 240; FRAN 481; LING 200; or permission of the Department. The course deals with the cognitive, developmental, and social aspects of language and human communication. Topics discussed may include psychological consideration of modern linguistic theories, child-language development, second-language development in children and adults, speech perception, biological basis of language, social psychological aspects of human communication.
NOTE: Students who have received credit for PSYC 393 may not take this course for credit.

## PSYC 396 Foundations of Animal

Behaviour (3 credits)
Prerequisite: PSYC 310 and PSYC 315
previously or concurrently; or nine credits in cégep-level Chemistry and Biology courses; or permission of the Department. This course explores the bases underlying the study of animal behaviour as they relate to the study of psychobiology and evolutionary psychology.
Topics include methodological considerations, behaviour genetics, theory of evolution, basic sociobiological and ethological concepts.
NOTE: Students who have received credit for PSYC 366 may not take this course for credit.

## PSYC 397 Contemporary Issues in Animal Behaviour (3 credits)

Prerequisite: PSYC 396. This is a continuation of PSYC 396. The course presents a detailed treatment of topics such as biological reproductive strategies, animal communication, territoriality and aggression, the effects of early experience, comparative animal learning and cognition, and mechanism of orientation navigation and homing. NOTE: Students who have received credit for PSYC 366 may not take this course for credit.

## SELECTED PROBLEMS IN PSYCHOLOGY

The Selected Problems in Psychology courses (PSYC 398 and PSYC 399) are designed for students enrolled in a Psychology program. The material is dealt with in a manner that assumes a background in experimental psychology and, in some cases, specific preparation through prior completion of a related course. The minimal prerequisite is PSYC 310 (Strategies of Inquiry in Psychology) and PSYC 315 (Statistical Analysis I). Students should consult the Psychology Department Course Guide (published yearly) for details concerning available courses.

PSYC 398 Selected Problems in
Psychology (3 credits)
PSYC 399 Selected Problems in
Psychology ( 6 credits)
PSYC 400 Advanced Experimental Psychology (6 credits)
Prerequisite: PSYC 310; PSYC 311; PSYC 315; PSYC 316 or equivalent, and permission of the Department. The course provides experience in the design, conduct, analysis, and reporting of independent research in the major areas of psychology. The research is undertaken under the supervision of a faculty member.

## PSYC 421 <br> Honours Seminar: Selected Topics in Psychology

 (3 credits)Prerequisite: PSYC 311, 316, and permission of the Department. This seminar critically examines current topics in psychology such as learning, perception, cognition, and language. Emphasis is on current theory as it relates to selected topics from these areas.
NOTE: Students who have received credit for PSYC 420 may not take this course for credit.

PSYC 422 Honours Seminar: Selected Issues in Psychology (3 credits)
Prerequisite: PSYC 311, 316, and permission of the Department. This seminar critically examines current issues in psychology such as social and developmental processes, motivation, emotion, and the biological bases of behaviour. Selected issues from these areas are discussed from theoretical perspectives specific to given phenomena. NOTE: Students who have received credit for PSYC 420 may not take this course for credit.

PSYC 430 Honours Thesis ( 6 credits) Prerequisite: Permission of the Department. Open to final-year Honours students. This course requires the student to propose and conduct a study and submit a thesis written according to the APA format. The work is supervised by a thesis chair selected by the student from within the Department.

## PSYC 436 Directed Readings in Psychology (3 credits)

Prerequisite: PSYC 311, PSYC 316, and permission of the Department. This course is designed for the advanced student wishing to do independent, individually supervised literature research on a specific topic in psychology. This research culminates in a written paper. Students should have a well-defined topic in mind before registering for this course.
NOTE: Students who have received credit for PSYC 438 may not take this course for credit.

## PSYC 439 Directed Research in

Psychology (6 credits)
Prerequisite: PSYC 311, PSYC 316, and permis-
sion of the Department. Under the supervision of a faculty member, the student carries out an independent research project and reports it in writing. The area of study must be decided upon through consultation with the faculty member. NOTE: Students who have received credit for PSYC 437 may not take this course for credit.

SPECIAL ADVANCED SEMINARS
Permission of the Department is required for registration in the Special Advanced Seminars (PSYC 498 and PSYC 499). These courses are normally open to Specialization and Honours students who are completing their final 30 credits. The usual minimal prerequisite for these specialized courses is PSYC 310, PSYC 311 (Strategies of Inquiry in Psychology, Research Experience in Psychology) and PSYC 315, PSYC 316 (Statistical Analysis I \& II). Because the various topics offered are dealt with in depth at an advanced level, specific preparation through prior completion of a related course may also be required.

PSYC 498 Special Advanced Seminar (3 credits)

PSYC 499 Special Advanced Seminar (6 credits)

### 31.270 RELIGION

Chair
Assistant Professors
NORMA JOSEPH, Associate Professor
LYNDA CLARKE
PHILIP HARLAND
Professors
FREDERICK BIRD
MICHEL DESPLAND
JACK LIGHTSTONE
MICHAEL OPPENHEIM
Québec and Canadian Jewish Studies Chair NORMAN RAVVIN

Distinguished Professor Emeritus
IRA ROBINSON
Hindu Studies Chair
T.S. RUKMANI, Professor

Associate Professor
LESLIE ORR

SHEILA McDONOUGH
Adjunct Professors
HOWARD JOSEPH
MARC LALONDE
SUSAN PALMER
JOHN L. ROSSNER

| Location | Sir George Williams Campus <br> Annex FA, Room: 101 <br> (514) 848-2065 <br> http://artsandscience.concordia.ca/religion/reli.html |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Department <br> Objectives | The Department of Religion is dedicated to the academic study of various faiths and of social and cultural phenomena affected by religions. The curriculum includes the comparative study of many religious traditions of the world. At both the undergraduate and graduate levels, students are encouraged to develop an understanding of at least two religious traditions. Whatever the student's special focus, the informed appreciation of the beliefs and values of other cultures is considered an essential dimension of education for today's world. |  |  |  |
| Programs | Students are responsible for satisfying their particular degree requirements. The superscript indicates credit value. |  |  |  |
|  | 60 12 | BA Honours in Religion In a language related to thesis; or in a related discipline such as Anthropology, English Literature, History, Philosophy, Sociology, Theological Studies, Women's Studies | 30 6 24 | Minor in Religion <br> RELI $211^{6}$ or $214^{3}$ and $215^{3}$ RELI elective credits (chosen in consultation with the departmental adviser) |
|  | 6 | RELI $211^{6}$ or $214^{3}$ and $215^{3}$ | 48 | BA Major in Judaic Studies |
|  | 21 6 | From area of primary concentration* From area of secondary concentration* | 12 | Chosen from Hebrew Language: HEBR $210^{6}, 250^{6}$; RELI $401^{3}$ |
|  | 6 | RELI elective credits at the 300 or 400 level | 6 | $\begin{aligned} & \text { RELI } 211^{6} \text { or } 214^{3} \text { and } 215^{3} \\ & \text { RELI } 220^{3} \end{aligned}$ |
|  | 3 | RELI 409 ${ }^{3}$ | 9 | Chosen from RELI $301{ }^{3}, 326^{3}, 327^{3}, 328^{3}$ |
|  |  | RELI $410^{6}$ | 9 | Chosen from RELI 329 ${ }^{3}$, $334^{3}, 335^{3}$, |
|  | *See areas of concentration. |  | 6 | $336^{3}, 381^{3}, 391^{3}, 392^{3}, 395^{3}, 407^{3}$ <br> Chosen from RELI $223^{3}, 224^{3}, 225^{3}, 2 २ 6^{3}$ |
|  | 42 | BA Major in Religion RELI $211^{6}$ or $214^{3}$ and $215^{3}$ |  | $\begin{aligned} & 302^{3}, 315^{3}, 319^{3}, 320^{3}, 321^{3}, 322^{3} \\ & \text { RELI } 409^{3} \end{aligned}$ |
|  | 21 | From area of primary concentration* |  |  |
|  | 6 | From area of secondary concentration* |  |  |
|  | 6 | RELI elective credits at the 300 or 400 level |  |  |
|  |  | RELI $409^{3}$ |  |  |
|  | *See areas of concentration. |  |  |  |

## 120 Bi-University Major in Judaic Studies

By agreement between the University and Bar-llan University, Ramat-Gan, Israel, students may be admitted to a 120 -credit bi-university program designed to provide the academic base for prospective teachers in Jewish Studies programs at the Primary, Elementary, and Junior High School levels in

Canada. Admission to the program depends upon acceptance by both universities. Successful applicants may spend up to the first 24 months (i.e., two Regular and two Summer sessions) at Bar-llan. The rest of the requirements for the degree must be completed at Concordia while the student is registered in the BA Major in Judaic Studies. Further information on the program may be obtained from the Department of Religion.
Students interested in the Southern Asia Studies programs should refer to the description provided in §31.170 (Interdisciplinary Studies) of this Calendar.

| Areas of Concentration | A. Asian Religions ( 21 credits) <br> 21 Chosen from RELI $224^{3}, 225^{3}, 226^{3}$, $\begin{aligned} & 315^{3}, 316^{3}, 318^{3}, 319^{3}, 340^{3}, 341^{3}, 342^{3}, \\ & 343^{3}, 347^{3}, 348^{3}, 349^{3}, 350^{3}, 351^{3}, 364^{3}, \\ & 383^{3}, 384^{3}, 385^{3} \end{aligned}$ <br> B. Christianity ( 21 credits) <br> 3 RELI $223^{3}$ <br> 12 Chosen from RELI $301^{3}, 302^{3}, 320^{3}$, $321^{3}, 322^{3}$ <br> 6 Christian Studies elective credits at the 300 or 400 level <br> C. Judaism ( 21 credits) <br> 6 RELI $220^{3}, 301^{3}$ <br> 6 Chosen from RELI $326^{3}, 327^{3}, 328^{3}$ <br> 9 Judaic Studies elective credits at the 300 or 400 level | D. Women and Religion ( 21 credits) <br> 3 RELI $233^{3}$ <br> 6 Chosen from RELI $381^{3}, 382^{3}, 383^{3}$, $384^{3}, 385^{3}, 391^{3}, 392^{3}$ <br> 9 Chosen from RELI $372^{3}, 380^{3}, 387^{3}$, $388^{3}, 389^{3}, 405^{3}, 406^{3}$ <br> 3 Women and Religion elective credits at the 300 or 400 level |
| :---: | :---: | :---: |
| Courses | Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses. |  |
|  | RELI 211 Understanding Religion <br> (6 credits) <br> A systematic and topical introduction to the study of religion. The purpose of the course is to enable the student to articulate and investigate questions about the meaning and nature of religion. Problems discussed include the elements of religious experience, forms of religious expression and interpretation, religious communities and practices, and the questions raised by the contemporary interfaith dialogue. Materials are taken from a variety of religious traditions. | RELI 213 or RELZ 215 may not take this course for credit. <br> RELI 216 Encountering World Religions (3 credits) <br> This course serves as an introduction to some of the religions of today's world, and explores several contemporary contexts where people of diverse religious backgrounds come into contact with one another. <br> NOTE: Students who have received credit for RELZ 216, or for this topic under an RELI 298 |
|  | RELI 214 Religions of the West (3 credits) <br> This course surveys the history, doctrines, institutions, and practices of religions that arose in Western Asia, including Judaism, Christianity, and Islam. The course examines contemporary forms of religious life in those parts of the world where these traditions have spread, as well as indigenous religions. The course explores the religious activities and experiences of both women and men within these various traditions. NOTE: Students who have received credit for RELI 213 or RELZ 214 may not take this course for credit. | RELI 217 Cults and Religious Controversy in North America (3 credits) <br> This course takes a sociological and historical approach towards understanding new religious movements (NRMs), popularly known as "cults." The course examines the reasons for their controversial status in society, and undertakes a survey of the beliefs, rituals, leadership, membership, recruitment strategies, and social organization of a number of specific NRMs. NOTE: Students who have received credit for this topic under a RELI 298 number may not |
|  | RELI 215 Religions of Asia (3 credits) This course surveys the history, doctrines, institutions, and practices of religions that have arisen in and spread throughout Asia, including Hinduism, Buddhism, and the religions of China and Japan. The course explores the religious activities and experiences of both women and men within these traditions. <br> NOTE: Students who have received credit for | take this course for credit. <br> RELI 220 Introduction to Judaism (3 credits) <br> This course examines the continuities and changes in Jewish society, institutions, concepts, and traditions from ancient times to the present. It also provides an introduction to Jewish practice and belief in its contemporary |

diversity, including a survey of the rituals, symbols, and ceremonies of Jews today. NOTE: Students who have received credit for RELI 222 may not take this course for credit.

## RELI 223 Introduction to Christianity (3 credits)

This course provides an introduction to key developments and enduring structures in the historical evolution of Christianity. It examines the variety of expressions of faith that are embodied by the Eastern churches (e.g. Greek and Russian Orthodox, Syrian) and the Western (e.g. Roman Catholic, Protestant), and traces the ways in which institutions, symbols, and rituals have in the past and continue today to carry forward the Christian tradition as a world religion in a variety of cultural contexts.

RELI 224 Introduction to Islam (3 credits)
This course explores the religious tradition of Islam through the beliefs and practices of the vast number of Muslims scattered throughout the world - in the Middle East, Indonesia, India and Pakistan, North America, and other places. It examines the scriptures and common rituals or "pillars" of the religion, as well as expressions of life and culture in the past and present such as the law (shariah), the Islamic arts, and the mystical orders. The course also provides a historical framework of the classical period of Islam up to the Abbasid empire (eighth century). NOTE: Students who have received credit for RELI 313 may not take this course for credit.

## RELI 225 Introduction to Hinduism

 (3 credits)This course introduces students to some of the essential concepts of Hinduism that have been of enduring significance for the tradition - such as dharma (religious duty, as well as the spiritual/ social order), moksa (the goal of liberation), and karma (action, understood in ethical as well as ritual terms). This course focuses on the ways in which these ideals have been embodied in particular scriptural, historical, and regional contexts by examining narrative literature, various practices of worship and asceticism, and contemporary interpretations.

## RELI 226 Introduction to Buddhism

 (3 credits)This course introduces students to the diversity of forms of Buddhism that have emerged in history and are practiced today. It examines those aspects that are shared in common by Buddhists all over the world, including reverence for the Buddha, support of the monastic order, and adherence to the Buddha's teachings. The course explores the ways in which these ideals and beliefs are expressed through such Buddhist practices as worship, study, pilgrimage, and meditation.
NOTE: Students who have received credit for RELI 350 or 364 may not take this course for credit.

RELI 233
Introduction to Women and Religion (3 credits)
This introduction to the particular problems and issues in the study of women and religion uses case studies from various religious traditions. The course presents a survey of the different levels of participation, the complex ritual activities, and the intriguing divine imagery associated with women that are found in many religious traditions. Questions pertaining to the contemporary feminist discourse on such topics as witchcraft, matriarchy, and goddess religions are also explored.

## RELI 298 Selected Topics in Religion (3 credits)

Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## RELI 301 Biblical Studies I: The Hebrew Bible (3 credits)

An introduction to the methods and results of biblical scholarship with regard to the history, culture, and religion of ancient Israel. Particular attention is given to the major religious affirmations and theological concepts of the Hebrew Bible that have become central in the subsequent development of Judaism.

## RELI 302 Biblical Studies II: Christian Origins (3 credits)

A critical survey of Christian origins, this course focuses on New Testament literature and considers historical setting, history of text, religious and cultural significance. Attention is paid to extra-canonical literature and other relevant sources.

## RELI 310 Self and Other: Exploring Value Choices in Personal and Interpersonal Relations (3 credits)

This course considers ethical issues arising in the context of personal and interpersonal relations, families and friendships, and health and medical care. These issues are discussed in relation to traditional and contemporary moral perspectives, both religious and non-religious. Topics covered may vary from year to year, but may include discussions of conscience and career, privacy, sexual relations, harassment, substance abuse, abortion, euthanasia, and gay and lesbian relations.
NOTE: Students who have received credit for RELI 331 or RELZ 310 may not take this course for credit.

## RELI 312 Justice and Social Conflict in a Globalized World (3 credits)

This course considers ethical issues arising in the context of social, legal, and political relations. These issues are discussed in relation to both traditional and contemporary moral perspectives, both religious and non-religious. Topics covered typically include discussions of social and economic inequality, welfare, poverty, just punishment, business ethics, public ethics,
economic development, and sustainable development.
NOTE: Students who have received credit for RELI 332 or RELZ 312 may not take this course for credit.

## RELI 315 African-American Islam

 (3 credits)This course explores several of the many streams of thought and action that have flowed into the African-American Islamic movement. After a consideration of secret Muslim slave populations, the Great Migration north, and Proto-Black Muslim movements, the largest part of the course is devoted to the career of Malcolm $X$ and to the two main African-American Muslim movements existing today: the Nation of Islam and the majority "Orthodox" group loyal to Warith Deen Muhammed. Special attention is paid to the tension in the movement between racial theories and Black Nationalism on the one hand, and integration into the world Muslim community on the other.

## RELI 316 The Golden Age of Islam

 (3 credits)The course considers patterns of life and thought in the period of Islam widely known as the "Golden Age" - from the achievements of Abbasid civilization centred in Baghdad to the final glories of the Ottoman, Safavid, and Moghul empires in the eighteenth century before the twilight of Islamic political power. The Islamic kingdoms in Spain and the expansion of Islam eastward along silk and spice trade routes are also considered. Islamic legal, mystical, theological, and philosophical thought is studied, as well as the ideas of key religious figures.

RELI 318 Shiite Islam (3 credits)
This course explores the history and ideas of Shiism, from the inception of the movement to the present. The various sects are introduced and treated, including the Twelvers, Ismailis, Zaydis, Druze, and Alawites. Basic Shiite doctrines such as crypto-religion (taqiyah), esoterism, messianism, quietism, and syncretism are considered in comparison with other religions. Study of the modern period treats subjects such as theocracy, political activism, and martyrdom. The course examines the centres of Shiite population: North India, Iran, Iraq and the Gulf, Lebanon, and North America.

RELI 319 Modern Islam (3 credits) A study of Islamic religious and social thought in the nineteenth and twentieth centuries. Islamic liberalism, traditionalism, and fundamentalism are compared and contrasted.

## RELI 320 Catacombs, Crusades and Convents: History of Christianity I (3 credits)

This first course of the sequence on Christianity, historically considered, examines the life and thought of Christians as a minority in the GraecoRoman world and their transition to a position of
power. The course studies the rise of monasticism after the collapse of the Roman Empire, the construction of medieval Christianity and its flowering with the founding of the Friars amid the great theological syntheses of the thirteenth century. Saint Augustine, Saint Francis and Aquinas are the key figures studied NOTE: Students who have received credit for RELI 303 may not take this course for credit.

## RELI 321 Mystics, Heretics and Reformers: History of Christianity II (3 credits)

This second course of the sequence on Christianity, historically considered, focuses on the period from 1300 to 1650 and examines the many gropings for alternatives to the hierarchical synthesis proposed by great minds and leading authorities. It concludes with a study of the new orthodoxies established by Protestant reformers (Luther and Calvin) and by the Council of Trent in the sixteenth century. NOTE: Students who have received credit for RELI 304 may not take this course for credit.

## RELI 322 <br> From Toleration to Political and Social Activism: History of Christianity III (3 credits)

This third course of the sequence on Christianity, historically considered, examines the rise of the doctrine of toleration and its progressive implementation by modern nation states. Attention is focused on the transformations that this imposed on Christian belonging and Christian thinking. The course looks at the evolution of the churches from the mid-seventeenth century up to the contemporary period, with particular attention to attitudes toward women, education of children, poverty, slavery and missions.
NOTE: Students who have received credit for RELI 306 may not take this course for credit.

RELI 323 Honouring the Gods and Feasting with Friends: The Ancient Mediterranean (3 credits)
This course explores various dimensions of social and religious life among Greeks, Romans, and others in the ancient Mediterranean. With the help of both archaeological and literary sources, the course examines the concrete ways in which ordinary women and men maintained fitting relations with their gods, with their rulers, and with one another, illuminating the religious and cultural contexts in which early Judaism and Christianity emerged.

## RELI 324 On the Margins of Christianity: Heresy, Dissidence and the End of the World (3 credits)

This course investigates marginal forms of Christianity which have found themselves ignored, excluded, or suppressed by more mainstream Christian groups and institutions. The course explores aspects of the history of heretical movements, mysticism, and apocalypticism. It looks at the world-views and
practices associated with such marginal forms of Christianity, placing religious traditions and movements within their broader social, cultural, and political contexts.
NOTE: Students who have received credit for RELI 308 may not take this course for credit.

RELI 325 Prophets, Rebels and Saints in Christianity (3 credits)
This course, which varies in focus from year to year, investigates the lives of controversial or influential women and men in the history of Christianity. Going beyond mere biography, the course situates particular figures within their social and cultural contexts, also dealing with how such prominent figures were viewed, portrayed, and used by others. Personalities under investigation may include ancient figures like Jesus of Nazareth, Mary Magdalene, Paul, the ascetic "Desert Mothers", Saint Augustine, or the heretic Marcion; medieval figures like the mystics Hildegard of Bingen and Meister Eckhart, or the rebel-messiah Jan of Leiden; and modern figures like Ellen White, Albert Schweizer, Pope John Paul II, or David Koresh. Specific topics for this course will be stated in the Undergraduate Class Schedule.
NOTE: Students who have received credit for RELI 308 may not take this course for credit.

RELI 326 Ancient Judaism (3 credits)
This course examines the variety of Judaic expression in the period of Late Antiquity. This includes the concepts, institutions, and literature of both rabbinic and non-rabbinic Judaisms as well as their biblical background. The development of rabbinic systems of thought and law, as well as their expression in rabbinic literature, are considered.

RELI 327 Medieval Jewish Thought and Institutions (3 credits)
This course examines the intellectual, religious, and social history of selected Jewish communities during the Middle Ages. Both internal Jewish developments and changing Jewish relations with their non-Jewish neighbours are considered.

## RELI 328 Modern Judaism (3 credits)

This course surveys the major historical events, sociological and political forces, and intellectual currents which shaped Judaism in the modern period as well as the ways that Jewish communities responded to these forces. Among the topics explored are Emancipation, forms of religious adjustment, anti-semitism, the experience of Jewish communities in Russia and North America, the Holocaust, and Zionism and the state of Israel.

## RELI 329 <br> Israel: Religion and State

 (3 credits)This course studies the emergence and development of the state of Israel, from the beginnings of the Zionist movement to the present time. It also explores the major political, social, and intellectual developments in both the
pre- and post-state periods. The role of Judaism within the changing state is a primary focus.

## RELI 334 The Canadian Jewish

Experience (3 credits)
This course examines the Canadian Jewish community from its eighteenth-century origins to the present from the perspectives of modern Jewish and Canadian history.

## RELI 335 Selected Topics in Canadian Jewish Studies (3 credits)

Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## RELI 336 Sephardic Judaism (3 credits)

This course studies the social and spiritual life of the various communities within the Sephardi world. Topics include Judaism under Islam; the expulsion and dispersion; Sephardi-Maghrebi Judaism; modern times in Arab lands; Sephardi life in the new world, Europe, and Israel. In addition, the philosophical, Halakhic, biblical, and mystical works of Sephardi Jews are examined. NOTE: Students who have received credit for RELI 352 may not take this course for credit.

## RELI 338 Holocaust: Historical Circumstances (3 credits)

This course examines the historical circumstances that made possible the systematic destruction of European Jewry in the years 1939-45, as well as the process of destruction and the Jewish and world responses to that destruction. NOTE: Students who have received credit for RELI 357 may not take this course for credit.

## RELI 339 The Impact of the Holocaust on Religious Thought

(3 credits)
This course examines the ramifications of the Holocaust in Jewish and Christian thought. Issues discussed include the problem of evil; suffering; the election of Israel; God's relation to the course of human events.
NOTE: Students who have received credit for RELI 358 may not take this course for credit.

## RELI $340 \quad$ Veda and Upanishads: Fountainhead of Hindu Thought (3 credits)

This introduction to the religious concepts, practices, and wisdom of ancient India is based on the literature of the Vedic period, including the Upanishads. The course examines the contribution of various aspects of the Vedic tradition to the development of Hinduism, and explores the interaction among religions in the ancient period.
NOTE: Students who have received credit for RELI 320 may not take this course for credit.

RELI 341 Hindu Sadhana: From Yajna to Yoga (3 credits)
Hinduism has evolved many paths to come in touch with the divine. It presents a philosophy
of transformation of the individual through various practices, so that there dawns a realization of transcendent reality. This course examines some of the sadhanas - such as sacrifice, reasoning and wisdom, and yogic samadhi - which developed in the classical period of Hinduism.

## RELI 342 The Golden Age of Bhakti (3 credits)

The medieval period of Hinduism is the period of Bhakti, or devotion. This course looks at the Bhagavadgita, as well as popular regional literature and the lives of devotees such as Mirabai, Tukaram, Tulsidas, Kabir, Andal, and Mahadeviyakka. The course also examines the Vaishnava, Shaiva and Shakta traditions of devotion.
NOTE: Students who have received credit for RELI 321 may not take this course for credit.

## RELI 343 From Rammohun Roy to Gandhi: The Hindu Renaissance (3 credits)

This course explores how leading modern Hindu thinkers from Rammohun Roy to Mahatma Gandhi sought to harmonize such contemporary values as social welfare, equality, humanism, and the universality of spiritual experience with parallel antecedents in older patterns of Hinduism preserved in Sanskrit texts.
NOTE: Students who have received credit for RELI 345 may not take this course for credit.

RELI 347 Religion and the Arts in South and Southeast Asia (3 credits)
This course is an introduction to the religious art of South and Southeast Asia, including an examination of Hindu, Buddhist, and Islamic architecture, sculpture, painting, and performing arts. The course examines the ways in which sacred art is related to myth and symbol, religious values and goals, ritual, religious experience, and social and political realities. NOTE: Students who have received credit for RELI 318 may not take this course for credit.

RELI 348 Religion and Society in South and Southeast Asia (3 credits)
This historical and sociological examination of religion's impact on and intersection with the structures of South and Southeast Asian society, explores such issues as caste and class, gender and family relations, links between religion and the state, and relations between Hindu, Buddhist, and Muslim communities.
NOTE: Student who have received credit for RELI 325 may not take this course for credit.

## RELI 349 Religions of China and Japan

 (3 credits)This course examines the history of the religious life of the people of China and Japan, exploring the interaction of Confucian, Taoist, Buddhist, and Shinto practices and beliefs.
NOTE: Students who have received credit for RELI 316 may not take this course for credit.

## RELI 350

Theravada Buddhism
(3 credits)
This course examines the early history, doctrine, institutions, and practices of Buddhism in India, and follows the development of Theravada Buddhism in the countries of Southeast Asia up to the present day.
NOTE: Students who have received credit for RELI 314 may not take this course for credit.

## RELI 351 From Satyagraha to Svadhyaya: Hinduism in Dialogue with the Modern

 World (3 credits)A noteworthy feature of contemporary Hinduism has been the emergence of several original thinkers who have been devising strategies for dialogue, with the aim of promoting mutual tolerance and understanding among religions and of establishing a network of harmonious relations among the people of the world. This course particularly focuses on how the strategies of satyagraha (soul force) proposed by Mahatma Gandhi, and of svadhyaya (reflective self-study) proposed by Pandurang Athavale, may facilitate meaningful interreligious dialogue and the realization of the ideals of social progress, human rights, and equality. NOTE: Students who have received credit for RELI 345 may not take this course for credit.

## RELI 352 Topics in Diaspora Studies (3 credits)

This course treats topics related to the diaspora of religious communities. Topics covered change from year to year, and may include an examination of the history and dynamics of diaspora of a particular community (e.g. the Jewish diaspora, the Hindu diaspora), or the comparative investigation of a particular theme in diaspora studies. Specific topes for this course will be stated in the Undergraduate Class Schedule. NOTE: Students who have received credit for RELI 346 may not take this course for credit.

## RELI 353 Religion and the Arts in the

 West (3 credits)This course explores the way in which the fine arts, literary arts, and performing arts have given expression to, and shaped the experience of, religious realities in the history of the West, and also considers the ways in which, in a more recent and contemporary context, art may be seen as engaging with aspects of divinity and spirituality.
NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

## RELI $354 \quad$ Religion and Film (3 credits)

This course examines films that deal with religious themes - explicitly or implicitly - and provides an opportunity to analyse the language of film as a form of narrative through which cultural and religious ideas are transmitted. NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 364 Mahayana Buddhism (3 credits) This course studies the origins and evolution of the Mahayana Buddhist in India, and the spread and growth of various Mahayana traditions in East Asia. It examines developments in texts, doctrine, philosophy, ethical ideals, practices (worship and meditation), and institutions.
NOTE: Students who have received credit for RELI 315 may not take this course for credit.

## RELI 365 Religion and Literature (3 credits)

This course provides an opportunity to study a selection of literary works (such as novels and poems) with a focus on the religious issues raised by their content and their form. The course explores the relations between current trends in literary criticism and the interpretation of religious language, with its use of symbol, metaphor, parable, and myth.

## RELI 368 Religion in Native Traditions (3 credits)

This overview looks at the many diverse religious traditions of the First Nations populations in North America. The course examines the sacred stories, ceremonial patterns, life cycle rituals, and religious activities in their varied expressions. Consideration is given to the historical interaction of native government with religious practices.

## RELI 370 Topics in Comparative Religion (3 credits)

This course treats various topics in comparative perspective, examining religious themes as they are represented in two or more religious traditions. Topics covered change from year to year, and may include comparative religious law, comparative ritual, comparative philosophy, or comparative ethics. Specific topics for this course will be stated in the Undergraduate Class Schedule.
NOTE: Students who have received credit for RELI 309 or 369 may not take this course for credit.

RELI 371 Religion and Healing (3 credits)
This course looks at the interactions between religious beliefs and practices and healing beliefs and practices, both in traditional and contemporary settings. Topics typically include examinations of shamanism, folk medicine, spiritual healing, complementary and alternative medicine, and the relations between faith and established medical practices. Topics are discussed in relation to various religious traditions.

## RELI 372 The Human Body in Religious <br> Thought and Practice (3 credits)

This study of religious attitudes to the human body focuses on the body as a foundation for religious symbolism, religious community and identity, ritual, and religious experience. The course examines these problems with reference to various religious traditions. Issues examined include purification of the body; eating; mortification and mutilation of the body; attitudes
towards dead bodies and physical immortality; attitudes towards bodies as gendered; embodied spirituality and incarnation.

## RELI 373 Introduction to Mysticism (3 credits)

This course examines the concepts of mysticism articulated by contemporary scholarship. It then looks at mystical texts and experiences from a variety of religious traditions both comparatively and with respect to their position within the dynamic of their own traditions.

## RELI 374 Topics in Religion and Science

 (3 credits)This course treats topics in religion and science. Topics covered may vary from year to year, and may include the investigation of the relationship between religion and science within a particular religio-cultural context (e.g. Religion and Science in the West, Vedanta and Science) or in comparative perspective, or an examination of the place of religious resources for contemporary issues of relationship with the natural world. Specific topics for this course will be stated in the Undergraduate Class Schedule.
NOTE: Students who have received credit for RELI 366 may not take this course for credit.

RELI 375 Religion in Canada ( 3 credits)
This course examines the role religion has played in the development of Canada as well as its influence in Canadian society, politics, and culture. Attention is paid as well to the interaction of different religious groups in the Canadian context. NOTE: Students who have received credit for RELI 363 may not take this course for credit.

## RELI 376 <br> Psychology of Religion

 (3 credits)This survey looks at various perspectives and methods used in psychology as they are relevant to understanding the role and value of religion for the individual. The course examines the ideas of such figures as William James, Freud, and Jung, among others, and considers such topics as intense religious experience, conversion, images of God, myth and symbol, ritual, and religious and moral development. NOTE: Students who have received credit for RELI 343 may not take this course for credit.

## RELI 377 Topics in Religious Interaction (3 credits)

This course treats topics relating to contacts between and interactions among different religious traditions. Topics covered change from year to year, and may include an examination of religions in contact within a particular historical or contemporary setting, or the comparative investigation of a particular theme, such as syncretism, dialogue, religious war, or religious encounter in the context of colonialism. Specific topics for this course will be stated in the Undergraduate Class Schedule.
NOTE: Students who have received credit for RELI 367 may not take this course for credit.

RELI 378 Death and Dying (3 credits) This course provides a comparative perspective on the variety of conceptions and practices related to death and dying that are found in different world religions. In addition, the course considers how people in contemporary North American society utilize traditional religious concepts and rituals, scientific understandings and medical procedures, or innovative combinations of ideas and practices with which to cope.

## RELI 379 Topics in the Study of Mysticism (3 credits)

This course treats topics in the study of mysticism. Topics covered change from year to year, and may include the examination of the mystical tradition within a particular religious context (e.g. Christian mysticism, Hindu mysticism, Islamic mysticism) or the comparative investigation of a particular theme in the study of mysticism. Specific topics for this course will be stated in the Undergraduate Class Schedule. NOTE: Students who have received credit for RELI 307, 317, 344, or 397 may not take this course for credit.

## RELI 380 Sexuality in the History of Religions (3 credits)

This course examines, from a comparative and historical perspective, the interplay between religion and sexuality. It looks at the development of attitudes towards sexuality within diverse religious traditions, and religious manifestations of sexuality. Topics include, among others: human reproduction, gender roles and identity, birth control, abortion, celibacy, sexual variance, and homosexuality. NOTE: Students who have received credit for RELI 335 may not take this course for credit.

## RELI 381 Women and Religion: Judaism

 (3 credits)This course explores the status and religious roles of women within the Judaic tradition. Its focus is on the practice of the religion, especially the ritual and legal spheres. The relationship between common practice, popular attitudes, and formal legal principles is examined in order to inquire into issues of gender and religion.

## RELI 382 Women and Religion: Christianity (3 credits)

The focus of the course is the role of women and the conflicting patterns of gender construction in the history of Christianity. Through a critical use of primary and secondary sources, both visual and textual, the course explores the sources of women's power and subordination in order to illuminate the relationship between gender and the Christian tradition.

## RELI 383 Women and Religion: Islam (3 credits)

This course explores past and present debates among Muslims about the ideal status of women in Islam. The historical and legal background the material of the debate - is examined first.

The class then considers how a variety of discourses, ranging from conservative to Muslimfeminist, treat and manipulate this material.

## RELI 384 Women and Religion: Hinduism (3 credits)

This course examines the roles of women in Hindu religious life. The course focuses particularly on the impact of historical change; on the activities and experience of women in India, in the course of the last three thousand years; and on the relation between Hindu conceptions of "the feminine" and women's situation.

## RELI 385 Women and Religion: Buddhism (3 credits)

 This course explores the situation, activities, and experiences of women within Buddhism. Using an historical approach, the course examines the circumstances of women in early Buddhism, and traces subsequent developments in India, Tibet, Southeast Asia, the Far East, and the West, up to the present day.
## RELI 387 Goddesses and Religious Images of Women (3 credits)

 This comparative survey of female divinity and feminine imagery studies various religious traditions. Among the issues to be explored are the imaging of goddesses as mothers; the conception of forces like fertility, energy, materiality, and knowledge as feminine; the correspondences and relations between goddesses and women; and the contemporary feminist recovery of the Goddess.
## RELI 388 Religious Women: Leaders, Models, and Rebels (3 credits)

 This course is an exploration of women's roles in religious traditions around the world - as nuns, teachers, saints, religious authorities and leaders, and founders of new religious movements. Special consideration is given to the experiences and activities particular to women within various religions, and the way these are linked to women's diverse responses to "establishment" religion - rejecting it, changing it, participating in it, presenting alternatives to it.
## RELI 389 Women's Ritual: Expressions and Expertise (3 credits)

 This comparative examination of the contexts and patterns of women's ritual lives looks at various religious traditions. In addition to considering women's activities in formal or public ritual contexts, this course focuses especially on the importance of women as ritual specialists and authorities in the context of the home.
## RELI 391 Women in Jewish History: Ancient and Medieval (3 credits)

This course examines the lives and experiences of Jewish women from the late antique period through and including the medieval. Using primary and secondary materials, the class inquires into the varieties of women's encounter with history.

The differences between communal standards and individual exploits are highlighted, as are geographic distinctions. Through a critical reading of Jewish sources and historians' accounts, questions of methodology and theory are addressed.

## RELI 392 Women in Jewish History: <br> Modern (3 credits)

This course examines the lives and experiences of Jewish women in the modern period. The immigrations to North America and the subsequent development of the community provide the framework for investigating Jewish women's encounter with and contribution to modern Jewish life. The main focus is on North America, using primary sources such as fiction, biography, and autobiography. The influence of denominational differences and feminist challenges complete the survey.

## RELI 395 Studies in Jewish Thought and Philosophy (3 credits)

By means of the analysis of particular issues, thinkers, and texts, this course explores the character of Jewish philosophy. Issues in Jewish philosophy that may be examined include the relationship between faith and reason, the understanding of God, Judaism and the inter-human, the powers and limits of philosophical understanding.

RELI 398 Selected Topics in Religion (3 credits)
Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## RELI 401 Studies in Hebrew Texts (3 credits)

Prerequisite: HEBR 210, 250; or permission of the Department. A reading of representative selections of classical and modern Hebrew texts. Attention is paid to the historical and philosophical background of the texts.

## RELI 403 Questions and Controversies in Christianity (3 credits)

Prerequisite: Six credits in 300 -level Christian Studies courses or permission of the Department. This course, which varies in focus from year to year, explores themes that have been of critical significance and the focus of contest and debate within the history of Christianity. This course situates such conflicts and discussions among Christian groups, individuals, institutions, and traditions within broader social, political, and cultural contexts. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule. NOTE: Students who have received credit for RELI 362 may not take this course for credit.

| RELI 405 | Approaches to the Study of <br> Women and Religion: <br> Advanced Seminar (3 credits) |
| :---: | :---: |
| Prerequisite: Six credits in Women and Religion |  |

courses. This examination of the work of various feminist theoreticians and theologians explores how their theoretical insights may be applied to the practice of doing research on women in religion.

## RELI 406 Feminist Hermeneutics and Scripture (3 credits)

This feminist critical reading of sacred texts focuses on the rediscovery of women in holy scriptures. This course is for the advanced student able to work with primary sources. Different texts may be considered such as Hebrew Bible, New Testament, Koran, Hindu and Buddhist scriptures.

RELI 407 Topics in Judaic Studies (3 credits)
This course deals with advanced topics in Judaic Studies. Topics covered change from year to year, and may include Jewish law, Jewish ritual, and Jewish mysticism. Specific topics for this course will be stated in the Undergraduate Class Schedule.
NOTE: Students who have received credit for RELI 394 or 397 not take this course for credit.

RELI 409 Methodology and the Study of Religion (3 credits)
Prerequisite: Permission of the Department. This course examines the various methodological approaches that inform the comparative study of religion. Questions investigated pertain to the collection and interpretation of evidence, the types of resources available and techniques used, the complex differences between men's and women's religious experiences and expressions, as well as the impact of significant theoretical approaches on the analysis of religion.

RELI 410 Honours Thesis ( 6 credits)
Prerequisite: Honours standing in Religion or Judaic Studies. The student works with an individual faculty member in a particular field of religious or Judaic studies. Students are asked to produce a sustained piece of written work to be read by their adviser and at least one other member of the Department.
NOTE: Students who have received credit for RELI 499 may not take this course for credit.

## RELI 496 Independent Studies in Religion (3 credits)

Prerequisite: Permission of the Department. The student works with an individual faculty member in a particular field of religious or Judaic studies, as a reading course.
NOTE: Students who have received credit for RELI 495 may not take this course for credit.

## RELI 498 Advanced Topics in Religion

 (3 credits)Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

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Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## SCHA 203 (also listed as GEOG 203) Canadian Environmental Issues (3 credits)

This course explores a number of contemporary
and controversial environmental issues in Canada. It provides a general overview of the policy context of environmental decision-making, focusing in particular on the involvement of
aboriginal groups in natural resource management and the role of various levels of government, non-government organizations, the news media and the international community in sharing Canadian environmental policies. Issues explored in the course include national parks, animal rights, fisheries management, and northern development and environmental impact assessment.
NOTE: Students who have received credit for GEOG 203, INTE 254 or SCHA 254 may not take this course for credit.

## SCHA 204 (also listed as GEOG 204)

 Global Environmental Issues (3 credits)This course examines a number of global issues from an interdisciplinary perspective. The complex interactions and interdependencies among the biophysical, socio-economic, political, and cultural aspects of global environmental change are explored in relation to issues such as global warming, desertification, deforestation, declining biodiversity, and acid rain.
NOTE: Students who have received credit for GEOG 204, INTE 253 or SCHA 253 may not take this course for credit.

## SCHA 250 Introduction to Science and Human Affairs I (3 credits)

The social and historical context of scientific and technological change. The reciprocal interactions of science with government, ideology, economic development, religion, literature, and social theory; science and the city; science and the control of human life; science and human liberation; new definitions of scientific responsibility may be considered.
NOTE: Students who have received credit for INTE 250 or PHIL 220 or 228 may not take this course for credit.

SCHA 251 Introduction to Science and Human Affairs II (3 credits)
A continuation of SCHA 250. This course may be taken independently.
NOTE: Students who have received credit for INTE 251 prior to 1990-91 may not take this course for credit.

## SCHA 260 Science and Culture in the Western Tradition (3 credits)

 Surveys the place of science in Western culture from the ancient Greeks until the present day. The aim of the course is to acquaint a nonspecialist audience with how a scientific worldview has profoundly shaped modern-day society.SCHA 298 Selected Topics in Science and Human Affairs (3 credits)

SCHA 299 Selected Topics in Science and Human Affairs ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## SCHA 318 (also listed as PHIL 318) Philosophy of Biology (3 credits)

Prerequisite: PHIL 220, or permission of the Department. This course examines a variety of philosophical issues in biology. Topics covered may include: fitness, function, units of selection, the nature of species, reductionism, biological explanation of human behaviour and the ethical and epistemological consequences of evolutionary theory.
NOTE: Students who have received credit for PHIL 318 may not take this course for credit.

SCHA 351 Astronomy, Cosmology and the Space Age (6 credits)
The nature of the universe as interpreted by relevant scientific theories; cosmology and the shape, size, and structure of the universe; possibility of intelligent life in the universe; social implications of space flight.
NOTE: Students who have received credit for INTE 351 prior to 1990-91 may not take this course for credit.

## SCHA 353 Science and Society: From Ancient Times Until 1789

 (3 credits)Prerequisite: SCHA 250; SCHA 251, or permission of the director. This course surveys the history of science from the ancient Greeks until the French revolution, with an emphasis on the social history of science.

## SCHA 354 Science and Society: Since 1789 (3 credits)

Prerequisite: SCHA 250; SCHA 251, or permission of the director. This course surveys the history of science from the French revolution until the present day, with an emphasis on the social history of science.

## SCHA 355 Technology and Society: From

 Ancient Times Until 1780 (3 credits)Prerequisite: SCHA 250; SCHA 251. This course deals with the social role and impact of technology from the ancient Greeks until the industrial revolution.

## SCHA 356 Technology and Society:

 Since 1780 (3 credits)Prerequisite: SCHA 250; SCHA 251. This course deals with the role and impact of technology in Western society from the industrial revolution until the present.

## SCHA 398 Selected Topics in Science and Human Affairs (3 credits)

SCHA 399 Selected Topics in Science and Human Affairs ( 6 credits)

Specific topics for these courses, and
prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

SCHA 452 Advanced Study in the History of Science ( 6 credits)
Prerequisite: Permission of the director. Seminar in a specific question in the history of science. The emphasis is on encouraging students to conduct historical investigation on their own under a professor's guidance. The specific content varies from year to year depending on the instructor.

SCHA 453 Science and Public Policy ( 6 credits)
Prerequisite: SCHA 250; SCHA 251, or permission of the director. This course deals with those public policy issues which involve a major component of science and technology, i.e., energy, environment, resources, health, etc. The course also covers the general relationships of science and government relating to the making of science and technology policy particularly emphasizing the Canadian context, but including such topics as technology aid and transfer. NOTE: Students who have received credit for INTE 453 prior to 1990-91 may not take this course for credit.

## SCHA 454 Seminar in Science and Human Affairs ( 6 credits)

Prerequisite: Six credits from SCHA 353, 354, 355, 356 and enrolment in Major or Specialization in Science and Human Affairs, or permission
of the director. This seminar affords an opportunity for intensive examination of an explicitly interdisciplinary theme.
NOTE: With the permission of the director, students may take this course twice for credit provided that a different subject is dealt with the second time, and will register under SCHA 455. NOTE: Students who have received credit for INTE 454 prior to 1990-91 may not take this course for credit.

SCHA 455 Seminar in Science and Human Affairs ( 6 credits)
Prerequisite: Permission of the director. NOTE: Students who have received credit for SCHA 454 may register for SCHA 455 provided the subject matter is different. NOTE: Students who have received credit for INTE 455 prior to 1990-91 may not take this course for credit.

SCHA 498 Advanced Topics in Science and Human Affairs (3 credits)

SCHA 499 Advanced Topics in Science and Human Affairs ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

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| Faculty | Chair | JOHN D. JACKSON |
| :---: | :---: | :---: |
|  | CHRISTINE JOURDAN, Associate Professor | KURT JONASSOHN BRIAN M. PETRIE |
|  | Sociology | JOSEPH SMUCKER |
|  | Professors |  |
|  | DANIELLE GAUVREAU | Anthropology |
|  | GREG NIELSEN | Professors |
|  | WILLIAM C. REIMER | CHANTAL COLLARD |
|  | ANTHONY J. SYNNOTT | DAVID HOWES |
|  | Associate Professors | DOMINIQUE LEGROS |
|  | EFIE GAVAKI | Associate Professor |
|  | GUY LeCAVALIER FRANCES SHAVER | HOMA HOODFAR |
|  | Assistant Professors | Assistant Professor |
|  | MEIR AMOR | MARIE-NATHALIE LEBLANC |
|  | LORI BEAMAN |  |
|  | ANOUK BÉLANGER | Sociology and Anthropology |
|  | DANIEL DAGENAIS | Professor |
|  | VALÉRIE DE COURVILLE NICOL | VERED AMIT |
|  | NEIL GERLACH |  |
|  | BART SIMON | Associate Professor |
|  | JEAN-PHILIPPE WARREN | SALLY COLE |
|  | Adjunct Professors |  |
|  | JOHN P. DRYSDALE |  |
|  | E. SUSAN HOECKER-DRYSDALE |  |
| Location | Loyola Campus | Sir George Williams Campus |
|  | Vanier Extension, Room: VE $2 २ 3$ (514) 848-2155 | J.W. McConnell Building, Room: LB 681 (514) 848-2140 |
| Department Objectives | Sociology and Anthropology examine the processes of social and cultural life in diverse human societies, past and present. These core disciplines of the social sciences are closely linked to the humanities, since various aspects of culture and society concern them all. <br> The celebration of diversity - cultural, ethnic, and racial - among the students and faculty as well as in the subject matter, is a hallmark of the Department. It offers a full range of undergraduate programs, including joint programs in both disciplines. |  |
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Students are responsible for satisfying their particular degree requirements. The superscript indicates credit value.

| 60 | BA Honours in Sociology |
| ---: | :--- |
| 3 | SOCI $203^{3 *}$ |
| 6 | SOCI $212^{3}, 213^{3}$ |
| 3 | 200-level ANTH credits |
| 6 | SOCI $300^{6}$ |
| 6 | SOCI $408^{6}$ |
| 6 | SOCI $409^{6}$ |
| 6 | SOCI $410^{6}$ |
| 24 | SOCI elective credits (maximum of six |
|  | credits at the 200 level) |
| 60 | BA Specialization in Sociology |
| 3 | SOCI $203^{3 *}$ |
| 6 | SOCI $212^{3}, 213^{3}$ |
| 3 | $200-$ level ANTH credits |
| 6 | SOCI $300^{6}$ |
| 6 | Chosen from SOCI $310^{6}, 315^{6}, 410^{6}$ |

6 SOCI $408^{6}$
24 SOCI elective credits (maximum of six credits from the 200 level)
6 400-level SOCI credits
60 BA Joint Specialization in Anthropology and Sociology See Anthropology

42 BA Major in Sociology
3 SOCI 203 ${ }^{3 *}$
3 SOCl $212^{3}$
3 200-level ANTH credits
$6 \mathrm{SOCl} 300^{6}$
6 Chosen from SOCI $310^{6}, 315^{6}$
21 SOCl elective credits (maximum of nine credits from the 200 level)

42 BA Major in Community and Ethnic Studies
12 ANTH 202 ${ }^{3}$; SOCI 203 ${ }^{3 *}$, $212^{3}$; ANTH/SOCI $230^{3}$
6 SOCl $310^{6}$
6 Chosen from ANTH $311^{3}, 312^{3}$; SOCI $300^{6}$
12 Chosen from ANTH 303 ${ }^{3}$; SOCI $331^{3}$, $336^{3}, 437^{3}$; ANTH/SOCI $276^{6}, 315^{6}$, $352^{3}, 353^{3^{\prime}}, 379^{3}, 380^{3}, 381^{3}, 385^{3}$
3 Chosen from cognate courses outside the Department which reflect an appropriate cross-cultural perspective and/or subject matter. This course will be chosen in consultation with the adviser.
3 ANTH/SOCI 433 ${ }^{3}$

30 Minor in Sociology
3 SOCl 203 ${ }^{3 *}$
$6 \quad 200-\mathrm{level}$ SOCI credits
6 Chosen from SOCI $300^{6}, 310^{6}, 315^{6}$
6 SOCI elective credits
9 300-level SOCI credits
*Students exempted from SOCI $203{ }^{3}$ are required to take three credits from SOCI 200or 300-level courses.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## N.B.:

(1) 300-level courses are open to students who have successfully completed SOCI 203 or equivalent, plus at least three credits of 200 -level Sociology courses. Students in related disciplines who wish to take cognate courses in Sociology may apply to the Sociology undergraduate adviser for waiver of prerequisites on the basis of equivalent background.
(2) 400 -level courses are open to students who have successfully completed at least six credits from 300 -level SOCI courses.
(3) Entry requirements for Sociology/Anthropology cross-listed courses depend on the discipline through which the course is entered. Once students have taken a cross-listed course under one disciplinary designation they may not take the course under the corresponding designation in the other discipline for credit.

## SOCI 203 Introduction to Society

 (3 credits)An introduction to the sociological study of society. The course begins with a consideration of the concepts, models, and methods used by sociologists. This is followed by an examination of selected substantive areas of social life, ranging from the relations between individuals and groups to total societies.
NOTE: Students who have received credit for SOCZ 203 may not take this course for credit.

## SOCI 212 Statistics I (3 credits)

Priority to enrol in this course is given to students who are in a Sociology or Anthropology program. This course provides an introduction to the basic principles of statistics for social scientists. Topics include the concept of the level of measurement, standardization, the interpretation of graphs, measures of univariate distributions, cross classification, elementary measures of association, the logic of controls, and the basic principles of inferential statistics. The emphasis is on the implications of these statistical techniques for theoretical understanding of sociology and anthropology.
NOTE See §200.7
SOCI 213 Statistics II (3 credits)
Prerequisite: SOCI 212. Priority to enrol in this course is given to students who are in a Sociology or Anthropology program. Students are encouraged to take SOCI 212 immediately preceding SOCI 213 . This course is designed to
follow Statistics I. Topics include measures of association, the principles of probability and sampling distributions, hypothesis testing, and tests of significance. The emphasis is on the implications of these statistical techniques for theoretical understanding in sociology and anthropology. NOTE See §200.7

## SOCI 221 Sociology of Cyberspace

 (3 credits)This course offers a critical examination of the role of electronic communication, information technology, and the Internet on public culture and the organization of social behaviour and interaction.

## SOCI 230 Race and Ethnic Relations

 (3 credits)Prerequisite: See N.B. number (3). Race and ethnicity are examined as bases of social differentiation. Ethnic group relations are analysed in relation to stratification and the exercise of power. The course further involves exploration of the phenomena of discrimination, prejudice, and intergroup accommodation.

SOCI 244 Sociology of Leisure (3 credits) The course examines the effects of social, economic, and political institutions upon the structure and use of leisure time. The emphasis is upon historical changes and the implications of alienation, anomie, and inequality. NOTE: Students who have received credit for SOCI 344 may not take this course for credit.

SOCI 261 Social Problems (3 credits) Consideration of a range of social problems from a sociological perspective. Examination of the process by which "social problems" are socially defined and recognized.

SOCI 262 Social Deviance (3 credits) Attention is focused on various forms of antisocial behaviour, particularly those that are socially induced. This course examines the nature, forms, sources, functions, and dysfunctions of deviations from social norms, and the mechanisms of social order and control. Deviance is viewed as a social process of interaction and relationships that derive from the social structure and have consequences for it. Various forms of deviance are considered in terms of contemporary social theory and research.

## SOCI 263 Juvenile Crime and Delinquency (3 credits)

This course examines the nature of juvenile crime and delinquency and their social causes and consequences. Juvenile crime and delinquency, as special kinds of deviance, receive the focus of attention, with emphasis on criminal justice, juvenile justice, criminal behaviour systems, and social policy on juvenile crime and delinquency.

SOCI 264 Sociology of Sport (3 credits) This course provides a systematic analysis of the social influences upon sport in North America. Special attention is directed to the interrelationships between sport and various social institutions.

## SOCI 274 The Sociology of Aging

 ( 6 credits)This course examines the changes in society and in living conditions as populations and people age. The sources and the effects of these changes are looked at in the light of several substantive areas and in terms of their implications for social policy. While the major emphasis is on the Canadian experience, some comparative materials are used to widen the perspective.

SOCI 275 Self and Society ( 6 credits)
This course studies the basic concepts and theories regarding social definitions of the Self. Emphasis is placed on ideas regarding personality, motivation, and interpersonal attitudes, viewed in terms of the interplay between actors and social structures.
NOTE: Students who have received credit for SOCI 370 may not take this course for credit.

SOCI 276 Gender and Society ( 6 credits) Prerequisite: See N.B. number (3). This course explores the social construction of gender categories both historically and in the present. The focus is upon examining the various theoretical perspectives which attempt to explain the ways in which society has organized "masculine" and "feminine" as the basis for social inequalities. NOTE: Students who have received credit for SOCI 372 may not take this course for credit.

SOCI $280 \quad$ Québec Society ( 6 credits)
Focus upon the historic changes in Québec society, with emphasis upon the period following the Second World War. Examination of issues which have provoked conflicting interpretations, including the Conquest, the nature of Confederation, Québec nationalism, and the language question.

## SOCI 282 Canadian Society ( 6 credits)

Analysis of Canadian social structure and change; the relation of the whole of Canadian society to its constituent elements; the relation of Canadian society to its international environment.

## SOCI 298 Selected Topics in Sociology (3 credits) <br> SOCI 299 Selected Topics in Sociology (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

## SOCI 300 Classical Social Theory ( 6 credits)

Prerequisite: See N.B. number (1). This course involves an examination of the origins of sociology and of the sociological works of nineteenthand early twentieth-century European theorists, with consideration of the social and political context. Particular emphasis is given to the works of Durkheim, Marx, and Weber. Readings include primary sources and critical commentaries.

## SOCI 310 Research Methods ( 6 credits)

 Prerequisite: See N.B. number (1); SOCI 212. This course introduces students to the concepts, language, and techniques of quantitative and qualitative research methods. It familiarizes students with the initiation of research problems, the gathering of accurate data, their statistical analysis, and the interpretation and reporting of research findings. This course also introduces students to SPSS (statistical software) and to library research.SOCI $315 \quad$ Field Research ( 6 credits) Prerequisite: See N.B. numbers (1) and (3). This course provides the opportunity to study and practise qualitative research methods as they are used by sociologists and anthropologists. Students are taught systematic procedures for the collection of primary data using methods that include participant-observation and formal and informal interviewing. This course also introduces students to library research.
NOTE: Students who have received credit for SOCI 313, 314, or ANTH 315 may not take this course for credit.

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SOCI 323 Economy and Society
    (3 credits)
Prerequisite: See N.B. number (1). This course
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examines the ways in which economic activities are legitimated or otherwise affected by social norms and values, and of the ways in which various social systems react to the strains created by the accommodation of new technology and of new industrial organizations.

SOCI 325 Social Change (3 credits)
Prerequisite: See N.B. number (1). This course examines the sources, mechanisms, and consequences of social and cultural change. Classical and contemporary theories of change are analysed, as well as significant empirical studies.

SOCI 331 Social Stratification (3 credits) Prerequisite: See N.B. number (1). This course examines the dynamics of social stratification and differentiation, including economic distinctions and their consequences, social status, power, and mobility. Emphasis is placed upon Canadian society.
NOTE: Students who have received credit for SOCI 330 may not take this course for credit.

## SOCI 333 (also listed as SCPA 333)

Political Sociology (3 credits)
Prerequisite: See N.B. number (1). This course is concerned with the nature, organization, distribution, determinants, and consequences of power in social systems.
NOTE: Students who have received credit for SCPA 333 may not take this course for credit.

SOCI 336 Collective Behaviour (3 credits) Prerequisite: See N.B. number (1). This course is concerned with the nature, emergence, and dynamics of short-term collective behaviour. Classical and contemporary interpretations of collective behaviour are examined. The course focuses on events such as riots and the emergence of violence in demonstrations related to current social problems and issues in Canada and the United States.

## SOCI 338 Sociology of Religion (3 credits)

Prerequisite: See N.B. number (1). This course presents an overview of the role of religion in society as found in the pertinent literature of sociology and anthropology. Special consideration is given to the relationship between religion and other social institutions, with particular attention to changes in the religious structures and practices in modern pluralistic societies.

## SOCI $341 \quad$ Sociology of the Media

 (3 credits)Prerequisite: See N.B. number (1). This course provides an introduction to sociological debates on the relevance and impact of mass media in our society. With a focus on North American media, this course takes a historical perspective to explore the rise of the mass media and the transformation of its relation with culture, especially popular culture. Particular attention is given to themes such as media and identity, national
dentity; media structures and ownership concentration; media texts and audiences.

## SOCI 342 Sociology of Occupations

 (3 credits)Prerequisite: See N.B. number (1). This course examines the role played by occupations and the world of work in industrialized societies. Economic, social, psychological, and moral attributes of occupations are examined in relation to changing markets for labour. Specific problem areas to be covered include changes in the structure of professions, the effects of changing technology and organizational design on occupational requirements, issues in work and household demands, issues in employment equity and problems of unemployment. NOTE: Students who have received credit for SOCI 343 may not take this course for credit.

SOCI 346 Industrialization (3 credits)
Prerequisite: See N.B. number (1). This course examines processes of industrialization. Analyses are directed primarily towards the Canadian experience and include a consideration of theories regarding industrialization in Canada; an examination of the social and economic impact of large-scale enterprises; the changing role of governments; the ongoing interaction between social organization and advanced technology; and contemporary thought on the social consequences of economic crises.

## SOCI 347 Sociology of LabourManagement Relations (3 credits)

Prerequisite: See N.B. number (1). This course involves the study of the shifting patterns in labour-management relations with a special focus on Canada. The course includes analyses of theories of management; the impact of the labour union movement, changes in the nature of the labour market; the significance of the growth of the service sector; the changing role of governments in labour-related issues; and contemporary thought on new forms of industrial organization.

## SOCI 352 Population and Environment

 (3 credits)Prerequisite: See N.B. numbers (1) and (3); SOCI 212. Population and environment have become two of the most contested areas for theory, research, policy and public action. The course critically examines the pillars of the population and the environment discourses with attention to differences between developed and developing countries. It provides an overview of the evolution of demands for population control to a common acceptance of a reproductive rights perspective. Similarly, the course focuses on current debates on environment and the management of the global commons from both the industrialized and developing countries' perspectives.
NOTE: Students who have received credit for ANTH 352 may not take this course for credit.
(also listed as ANTH 353; SCPA 353)
Community Studies (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course involves the study of communities both as locales and as symbolic constructions. The major theoretical approaches used in community studies are evaluated in relation to research and applied interests. Special attention is given to sensitizing students to issues concerning gender, race, ethnicity, and class at the community level. NOTE: Students who have received credit for ANTH 353 or SCPA 353 may not take this course for credit.

SOCI 355 (also listed as ANTH 355; SCPA 355) Urban Regions (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course reviews the work of anthropologists and sociologists in cities. The focus is on the social organization of social life in First and Third World urban spaces. Consideration is also given to the particular dynamics of fieldwork in urban settings.
NOTE: Students who have received credit for ANTH 355 or SCPA 355 may not take this course for credit.

SOCI 358 Social Demography (3 credits) Prerequisite: See N.B. number (1); SOCI 212. This course provides an introduction to the basic principles, issues, data, and methods of population studies. The emphasis in the course is on social factors that affect demographic processes (fertility, nuptiality, mortality, and migration), and the ways in which demographic change is related to social structure and social change.

## SOCI 361 Criminology (3 credits)

Prerequisite: See N.B. number (1). The course analyses the emergence of criminology as a discipline, and reviews a range of contemporary theoretical perspectives on crime, criminal behaviour, and crime control.

SOCI 362 Crime and Justice (3 credits) Prerequisite: See N.B. number (1). This course provides a critical analysis of the Canadian criminal justice system. The focus is on the process by which the accused is judged guilty or innocent, sentenced, punished or "corrected", and the treatment of the victim.

SOCI 363 Law and Society (3 credits) Prerequisite: See N.B. numbers (1) and (3). This course situates the study of law in crosscultural perspective. It involves an examination of the kinds of institutions found in place of courts in non-Western societies. This course also explores numerous issues of relevance to the legitimacy of contemporary Western legal systems, such as the relationship between law and morality, the idea of right prior to good, and the nature of legal reasoning.

SOCI 366 The History and Sociology of Genocide to 1920 (3 credits)
This course is cross-listed with HIST 359.
Prerequisite: See N.B. numbers (1) and (3). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that have led to it up to 1920.
NOTE: Students who have received credit for HIST 359 or 368 or SOCI 368 may not take this course for credit.

## SOCI 367 The History and Sociology of Genocide from 1920 to the Present (3 credits)

This course is cross-listed with HIST 360. Prerequisite: See N.B. numbers (1) and (3). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that led to genocide from 1920 to the present. NOTE: Students who have received credit for HIST 360 or 368 or SOCI 368 may not take this course for credit.

## SOCI 375 Social Construction of Sexuality (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course provides a cross-cultural, interdisciplinary approach to the study of human sexuality. There are three major components. One explores the validity of contemporary sexual beliefs and attitudes. Another focuses on the extent to which sexual beliefs and behaviours are socially organized. A third provides an introduction to theories which examine how biological and/or social forces shape our sexual lives. NOTE: Students who have received credit for this topic under a SOCI 398 number may not take this course for credit.

SOCI 376 Socialization ( 6 credits)
Prerequisite: See N.B. number (1). This course examines the social and cultural processes by which the individual becomes a functioning member of society. Attention is given to adult socialization and re-socialization in diverse institutional contexts such as schools, occupations, hospitals, prisons, the military. The relationship of social structure to role acquisition and role performance is a major focus of the course. NOTE: Students who have received credit for SOCI 270 may not take this course for credit.

## SOCI 378 The Family ( 6 credits)

Prerequisite: See N.B. number (1). The family as an institution is examined in relation to social structure and historical change. Special emphasis is placed on trends in the nuclear family patterns of contemporary North American society, and on the relation of the family to the broader societal environment.
NOTE: Students who have received credit for SOCI 272 may not take this course for credit.

SOCI 379 Cross-Cultural Perspectives on Gender (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This
course explores through different theoretical perspectives and ethnographic examples, crosscultural differences in sex/gender systems. A comparative analysis of gender relations in band, tribal, and state societies is undertaken. Topics discussed include the sexual division of labour, the cultural and social construction of gender, and the impact of economic development.

## SOCI 380 Contemporary Issues in Human Rights (3 credits)

Prerequisite: See N.B. numbers (1) and (3). The course develops, through case analysis, insight into the differing priorities and competing concepts of human rights and human dignity in "non-Western" cultural traditions as well as in "Western" societies. It explores the significance of religious and other ideological positions in the use and abuse of human rights by governments, extra-governments, international bodies, as well as the general public. The course also examines topics such as women's human rights, sexuality and human rights, and human rights in development, the limits of sovereignty, and state accountability.
NOTE: Students who have received credit for SOCZ 380 or ANTH 380 may not take this course for credit.

## SOCl 381 Ethnic Communities in Canada

 (3 credits)Prerequisite: See N.B. numbers (1) and (3). This course aims at familiarizing students with the social factors and dynamics of contemporary ethno-cultural communities in Canada. Topics may include the immigration process and settlement; community development, structures, and organizations; the ethnic family; socio-economic status and achievement; cultural continuity and change; minority-majority relations and relations with other ethno-cultural communities.

## SOCI 385 Globalization and Transnationality (3 credits)

Prerequisite: See N.B. numbers (1) and (3). Globalization has been used generally to denote the increasingly rapid and far-flung circulation of people, money, commodities, and images around the world. This course introduces students to a sample of issues covered by anthropologists and sociologists in respect to this process, while at the same time also exploring transnational social networks that cross state borders but are not necessarily global in scope.
NOTE: Students who have received credit for SOCZ or ANTH 385 may not take this course for credit.

SOCI 398 Selected Topics in Sociology (3 credits)

SOCI 399 Selected Topics in Sociology ( 6 credits)

Prerequisite: See N.B. number (1). Specific topics for these courses will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

## SOCI 404 Sociology of Literature (3 credits)

Prerequisite: See N.B. number (2); or permission of the Undergraduate adviser. This course presents a critical study of literature and para-literature as a cultural and social practice. Various approaches to the sociology of literature are examined. The emphasis is on the social genesis of literature. Selected texts of Canadian fiction and drama are analysed.

## SOCI 406 Sociology of Knowledge (3 credits)

Prerequisite: See N.B. number (2). This course examines a variety of theories of the relation of knowledge and belief to social contexts.

## SOCI 408 Contemporary Sociological Theory ( 6 credits)

Prerequisite: See N.B. number (2); SOCI 300. This course examines major developments in social theory against the background supplied by the classic projects of Marx, Durkheim, Simmel, and Weber. Particular emphasis is placed on contested substantive, methodological, and practical conceptions of social structure, culture, and human agency in contemporary schools of sociology such as functionalism, neomarxism, structuralism, critical theory, hermeneutical theory, social constructionism, rational exchange theories, and post-modernist thought.
NOTE: Students who have received credit for SOCI 402 or 403 may not take this course for credit.

SOCI 409 Honours Seminar ( 6 credits) Prerequisite: See N.B. number (2); SOCI 410; and permission of the Honours adviser. This course involves the student formulating an Honours research proposal, and the research and writing of an Honours paper.

SOCI 410 Research Design and Analysis ( 6 credits)
Prerequisite: See N.B. number (2); SOCI 212, 213. This course looks at quantitative methods of data collection and analysis. Topics include experimental and quasi-experimental design, principles of measurement, survey design, secondary data sources, techniques of multivariate analysis, and interpretation.

## SOCI 430 Development Debates

 (3 credits)Prerequisite: See N.B. numbers (2) and (3). This course considers the systematic reduction of poverty and powerlessness at individual and societal levels. Several development problems are examined, including national debt crisis, population growth, urbanization, and various degrees of state withdrawal from regulating the market. Special emphasis is given to case studies from major regions of the Third World on the varied impact of development on gender relations and on the eradication of social and economic inequalities.
NOTE: Students who have received credit for ANTH 430 may not take this course for credit.

SOCI 433 Theories of Identity (3 credits) Prerequisite: See N.B. numbers (2) and (3). This course discusses theories of difference, pluralism, exclusion, nationalism, and racism within broader frameworks such as citizenship, multiculturalism, diaspora or transnationalism. This course will therefore review related theories of identity as these are currently addressed within anthropology/sociology and related disciplines.
NOTE: Students who have received credit for SOCI or ANTH 432, or ANTH 433 may not take this course for credit.

SOCI 437 Social Movements (3 credits) Prerequisite: See N.B. number (2). The nature, emergence, and dynamics of organized collective behaviour and social movements are examined in light of classical and contemporary theories. The course focuses on the impact of leadership, organizational resources, and discontent with institutionalized social relations on social movements. Contemporary social movements in Québec, the rest of Canada, and the U.S. serve as illustrations.
NOTE: Students who have received credit for SOCI 337 may not take this course for credit.

## SOCI 441 Material Culture (3 credits)

Prerequisite: See N.B. numbers (2) and (3). The focus of this course is the study of material objects and technologies and their role in the production of everyday social life and culture.
NOTE: Students who have received credit for ANTH 441 may not take this course for credit.

## SOCI 445 Sociology of Labour Movements (3 credits)

Prerequisite: See N.B. number (2). This course analyses the origins and development of labour movements as well as contemporary characteristics of union organizations within the context of their social, political, and economic environments. Emphasis upon Canada and Québec. NOTE: Students who have received credit for SOCI 345 may not take this course for credit.

## SOCI 451 Citizenship, Eros and the City

 (3 credits)Prerequisite: See N.B. number (2). This course invites students to explore the relation between classic and contemporary texts in the field of social and political thought. The three interrelated areas of study include Citizenship, Eros and the City. The course explores diverse theories of democracy, community, love, and civil society. The integrating theme for these three areas is public and private relationships in the city.

## SOCI $457 \quad$ Population and Society

 (3 credits)Prerequisite: See N.B. number (2). This course involves a critical examination of the relationship between population and society. This course
treats both theoretical and applied aspects of this relationship, with particular emphasis on the problem of population and resources and the examination of social and demographic policies in the developed and the developing world. NOTE: Students who have received credit for SOCI 357 may not take this course for credit.

## SOCI 460 Sociology of Fear and Risk

 (3 credits)Prerequisite: See N.B. number (2). This course explores the social, cultural, and historical role of fear in the production of subjects and the control and management of individuals and populations. Topics include surveillance, moral regulation, moral panics, social phobias, terrorism, and the landscape of fear in popular culture. The course also examines the emerging theory of risk society and draws on developments in the sociology of emotions.

## SOCI $472 \quad$ Youth Culture (3 credits)

 Prerequisite: See N.B. numbers (2) and (3). This course is concerned with the cultural agency of youth, with particular emphasis on the study of peer groups. The production of culture by youth is examined through a wide range of anthropological and sociological studies.
## SOCI 474 Symbols, Rituals, and the

 Body (3 credits)Prerequisite: See N.B. numbers (2) and (3). This course examines the social roles of the body. Topics include body image and self-esteem, the symbolism of beauty and ugliness, height, hair, dress, the face, body language, health and fitness, eating and drinking patterns. The subject is considered in anthropological and sociological perspectives.
NOTE: Students who have received credit for SOCI 374 or ANTH 474 may not take this course for credit.

## SOCI 475 Men and Masculinist Theory

 (3 credits)Prerequisite: See N.B. numbers (2) and (3). This course is a review of the various and changing roles of men, the meanings of masculinity across cultures and the emerging men's movements. In a dialogue with feminism, the course moves towards humanism.
NOTE: Students who have received credit for ANTH 475 or for this topic under a SOCI/ANTH 498 number may not take this course for credit.

## SOCI 476 Feminist Sociological Theories

 (3 credits)Prerequisite: See N.B. number (2). Analysis of recent debates and perspectives within feminist social theory, in particular the concepts of gender, equality, difference, identity, and power; feminist dialogues with, and critiques of, sociological theory.

SOCI 480 Victorian Sociology (3 credits) Prerequisite: See N.B. number (2). This course provides the opportunity to study the lives and writings of women and men of the nineteenth century who contributed to the understanding of society and to the emergence of British and American sociology. The research and writings studied include those of Martineau, Tocqueville, Mill, Marx, Engels, Tristan, Maine, Spencer, Harrison, Mayhew, Booth, Gilman, Besant, Veblen, and Webb.

SOCI 498
Advanced Topics in Sociology (3 credits)

SOCI 499 Advanced Topics in Sociology (6 credits)

Prerequisite: See N.B. number (2). Specific topics for these courses will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

## ANTHROPOLOGY

## Programs

| ANTHROPOLOGY |  |  |  |
| :---: | :---: | :---: | :---: |
| 60 | BA Honours in Anthropology | 6 | Chosen from SOCI $310^{6}, 315^{6}, 410^{6}$ |
| 3 | ANTH 2023* | 12 | Chosen from ANTH/SOCI $353^{3}, 355^{3}$, |
| 3 | SOCI $212^{3}$ |  | $363^{3}, 375^{3}, 379^{3}, 381^{3}, 430^{3}, 472^{3}$ |
| 6 |  | 6 | 400-level ANTH credits |
| 3 | 200-level SOCI credits | 6 | 400 -level SOCI credits |
| 3 | ANTH $212^{3}$ | 6 | ANTH or SOCI credits |
| 6 | ANTH $311^{3}, 312^{3}$ |  |  |
| 6 | ANTH $315^{6}$ | 42 | BA Major in Anthropology |
| 12 | 300- or 400-level ANTH credits | 3 | ANTH 202** |
| 6 | ANTH $495{ }^{6}$ | 3 | 200-level ANTH credits |
| 12 | $400-$ level ANTH credits | 3 | 200-level ANTH or SOCI credits |
|  |  | 3 | $200-\mathrm{level} \mathrm{SOCl}$ credits |
| 60 | BA Specialization in Anthropology | 6 | ANTH $311^{3}, 312^{3}$ |
|  | ANTH $202{ }^{3 *}$ | 18 | 300 or 400-level ANTH credits |
| 3 | SOCI $212^{3}$ | 6 | 400-level ANTH credits |
| 63 | 200-level ANTH credits |  |  |
|  | 200-level SOCI credits | 30 | Minor in Anthropology |
| 3 | ANTH $212^{3}$ | 3 | ANTH $202{ }^{3 *}$ |
| 6 | ANTH $311^{3}, 312^{3}$ | 3 | 200 -level ANTH credits |
| 6 | ANTH $315^{6}$ | 3 | 200-level ANTH or SOCl credits |
| 30 | 300- or 400-level ANTH credits | 6 | ANTH $311^{3}$, $312^{3}$ |
|  | (maximum of 15 credits from the 300 level) | 12 | 300-level ANTH credits |
|  |  | 3 | 400-level ANTH credits |
| 60 | BA Joint Specialization in Anthropology and Sociology | *Students exempted from ANTH $202^{3}$ are required to take three credits from ANTH 200- |  |
|  |  |  |  |
| 3 | ANTH 202 ${ }^{3 *}$ |  |  |
| 3 | SOCI $203^{3 * *}$ |  | lents exempted from SOCl $203^{3}$ are |
| 6 | SOCI $212^{3}, 213^{3}$ |  | dod to take three credits from SOCI 200- or |
| 6 | ANTH $311^{3}, 312^{3}$ | 300-1 | vel courses. |
| 6 | SOCI $300{ }^{6}$ |  |  |

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## N.B.:

(1) 300-level courses are open to students who have successfully completed ANTH 202 or equivalent, plus at least three credits of 200 -level Anthropology courses.
(2) 400 -level courses are open to students who have successfully completed ANTH 311 and 312, plus at least six credits of 300 -level Anthropology courses or permission of the Anthropology adviser.
(3) Entry requirements for Sociology/Anthropology cross-listed courses depend on the discipline through which the course is entered. Once students have taken a cross-listed course under one disciplinary designation they may not take the course under the corresponding designation in the other discipline for credit.

## ANTH 202 Introduction to Culture

 (3 credits)An introduction to the anthropological study of culture. The course begins with a consideration of the concepts, models, and methods used by
anthropologists. This is followed by an examination of the many ways in which peoples of the world, past and present, have organized the activities, institutions, and belief systems that sustain social life. The course concludes with a
discussion of the relevance of cultural anthropology to contemporary issues.
NOTE: Students who have received credit for ANTZ 202 may not take this course for credit.

## ANTH 203 Culture and Biology: An Anthropological Perspective (3 credits)

This course focuses on the interrelationship between culture and human biology. The first part of the course examines current debates about human origins, human variation, and the influence of cultural adaptation on human biology. This is followed by a critical examination of the strategies of sociobiology for the study of sociocultural phenomena.

## ANTH 204 Native Peoples of North

 America (3 credits)Focusing primarily on the Native peoples of Canada, this course examines the ecological, economic, social, and religious aspects of Native cultures. A representative society from each geographic area of Canada is studied. This course is primarily ethnographic in emphasis, but it also seeks to provide some of the social and historical background necessary to understand the current situation of Native communities.

## ANTH 212 Elements of Ethno-Linguistics (3 credits)

This is an introductory course which explores the relationship between language and culture, and the use of language in society. Major issues and debates in ethno-linguistics, socio-linguistics, and philosophy of language are examined.

## ANTH 221 Symbolic Anthropology (3 credits)

This course examines alternative theoretical approaches to the study of the role of symbols in society. The course is devoted to a consideration of the contributions of structural, psychoanalytic, and interpretive anthropology.
NOTE: Students who have received credit for ANTH 421 or 426 may not take this course for credit.

## ANTH 230 Race and Ethnic Relations

 (3 credits)Prerequisite: See N.B. number (3). Race and ethnicity are examined as bases of social differentiation. Ethnic group relations are analysed in relation to stratification and the exercise of power. The course includes explorations of the phenomena of discrimination, prejudice, and intergroup accommodation.

## ANTH 231 Culture and Commerce (3 credits)

This course explores the influence of cultural values on the organization of the production, distribution or marketing, and the consumption of goods and services at both the local and global levels of the world economy. It also examines the social and environmental impact of the globalization of the consumer society.

## ANTH 270 Anthropology and Contempo-

 rary Issues (3 credits)This course examines contemporary world issues from a cross-cultural perspective. Discussion ranges from a critical examination of anthropological concepts and methods to a consideration of some of the practical or applied uses of anthropology. Specific topics include the consequences of underdevelopment, modernization, and the place of folk cultures and tradition in an increasingly global society.
NOTE: Students who have received credit for ANTH 370 may not take this course for credit.

ANTH 272 Comparative Culture (3 credits) This course is a general introduction to social and cultural anthropology. It examines the ways in which anthropologists use the comparative method to understand cultures in their unity and diversity. The focus is upon reading ethnographies.

ANTH 276 Gender and Society ( 6 credits) Prerequisite: See N.B. number (3). This course explores the social construction of gender categories both historically and in the present. The focus is upon examining the various theoretical perspectives which attempt to explain the ways in which society has organized "masculine" and "feminine" as the basis for social inequalities. NOTE: Students who have received credit for SOCI 372 may not take this course for credit.

## ANTH 298 Selected Topics in Anthropology (3 credits) <br> ANTH 299 Selected Topics in Anthropology (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

## ANTH 302 Art, Aesthetics, and

 Anthropology (3 credits)Prerequisite: See N.B. number (1). This course examines the relationship between art and society. It is mainly concerned with analysing how art may function as a means of signifying and perpetuating a given social order. Examples of artistic practice are drawn from diverse North and South American, African, and Melanesian cultures.

## ANTH 303 Indigenous Cultures Today

 (3 credits)Prerequisite: See N.B. number (1). A selection of case studies from around the world and in particular from South and North America. The course focuses on the rights of indigenous peoples, the question of cultural survival, the contribution indigenous cultures make to world cultural diversity, and on the ways they help us to understand what it is to be human through the comparative method.

ANTH 305 Culture and History (3 credits) Prerequisite: See N.B. number (1). This course analyses some of the ways "history" has been
understood both in our own and other cultures, including history as legitimating charter, as repeating cycle, as a scientific inquiry, as a series of unique events, and as a basis for ethical judgements.

## ANTH 307 Understanding Myths

(3 credits)
Prerequisite: See N.B. number (1). This course presents a survey of current anthropological theories of the nature and function of myths. The course also analyses competing interpretations of some classic Western myths, and concludes with an examination of mythmaking in contemporary Western culture.

## ANTH 311 European Anthropological

 Theories (3 credits)Prerequisite: See N.B. number (1). This course provides the student with a critical perspective on the historical development of theory in anthropology. Students are introduced to evolutionism, functionalism, structuralism, marxism, and postmodernism by rereading original texts and classical and contemporary ethnography. The role that fieldwork plays in "unmaking" theory in anthropology is explored. Emphasis is placed on the history and critique of British and European anthropological traditions.

## ANTH 312 North-American Anthropological Theories (3 credits)

 Prerequisite: See N.B. number (1). This course provides the student with a critical perspective on the historical development of theory in anthropology. Students are introduced to evolutionism, functionalism, structuralism, marxism, and postmodernism by rereading original texts and classical and contemporary ethnography. The role that fieldwork plays in "unmaking" theory in anthropology is explored. Emphasis is placed on the history and critique of American anthropological traditions.ANTH 315 Field Research ( 6 credits) Prerequisite: See N.B. numbers (1) and (3). This course provides the opportunity to study and practise qualitative research methods as they are used by sociologists and anthropologists. Students are taught systematic procedures for the collection of primary data using methods that include participant-observation and formal and informal interviewing. This course also introduces students to library research. NOTE: Students who have received credit for SOCI 313, 314, or 315 may not take this course for credit.

## ANTH 323 Peoples and Cultures of the Middle East (3 credits)

Prerequisite: See N.B. number (1). This course explores the diversity of religious practices, social values, economic organization, and family and gender relations in several different Middle Eastern societies by examining ethnographic material on transformations and continuities in the lives of urban and rural people.

ANTH 324 Peoples and Cultures of Oceania (3 credits)
Prerequisite: See N.B. number (1). This course presents an overview of the peoples and cultures of Oceania, with particular emphasis on Melanesia. In addition to studying the peopling of the Pacific, the course delves into a range of classic anthropological topics, and addresses contemporary issues of gender, migration, and urbanization.
NOTE: Students who have received credit for this topic under an ANTH 398 number may not take this course for credit.

ANTH 325 Magic, Science, Religion, and Ideology (3 credits)
Prerequisite: See N.B. number (1). This course analyses belief systems and their attendant rituals and practices. The focus is on how anthropologists differentiate between magic, science, religion, and ideology, and how anthropologists understand the relationship between belief systems and reality.

## ANTH 326 Peoples and Cultures of Sub-Saharan Africa (3 credits)

Prerequisite: See N.B. number (1). The course gives a broad historical and geographical survey of the region, and discusses, through case studies, older and contemporary topics, debates, and issues of African anthropology.

## ANTH 332 Health, Illness and Healing in Cross-Cultural Perspective (3 credits)

Prerequisite: See N.B. number (1). This course involves the exploration of a series of alternatives to Western ways of defining health and treating sickness, with particular emphasis on shamanistic and East Asian medicine. The major part of the course is devoted to the study of ethnomedicine, and exploring some of the central questions of transcultural psychiatry. The course concludes with a discussion of the role of the anthropologist in international health-planning. NOTE: Students who have received credit for this topic under an ANTH 398 number may not take this course for credit.

## ANTH 352 Population and Environment

 (3 credits)Prerequisite: See N.B. numbers (1) and (3); SOCI 212. Population and environment have become two of the most contested areas for theory, research, policy and public action. The course critically examines the pillars of the population and the environment discourses with attention to differences between developed and developing countries. It provides an overview of the evolution of demands for population control to a common acceptance of a reproductive rights perspective. Similarly, the course focuses on current debates on environment and the management of the global commons from both the industrialized and developing countries' perspectives.
NOTE: Students who have received credit for SOCI 352 may not take this course for credit.

## ANTH 353

(also listed as SOCl 353; SCPA 353)
Community Studies (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course involves the study of communities both as locales and as symbolic constructions. The major theoretical approaches used in community studies are evaluated in relation to research and applied interests. Special attention is given to sensitizing students to issues concerning gender, race, ethnicity, and class at the local level.
NOTE: Students who have received credit for SOCI 353 or SCPA 353 may not take this course for credit.

## ANTH 355 (also listed as SOCI 355; SCPA 355) <br> Urban Regions (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course reviews the work of anthropologists and sociologists in cities. The focus is on the social organization of social life in First and Third World urban spaces. Consideration is also given to the particular dynamics of fieldwork in urban settings. NOTE: Students who have received credit for SOCI 355 or SCPA 355 may not take this course for credit.

ANTH 361 Kinship (3 credits)
Prerequisite: See N.B. number (1). This course addresses both classical and contemporary issues in kinship studies, with particular emphasis on the following areas: filiation, adoption, descent, genealogies; rules of residency, private and public spheres; incest, sex, and marriage; terminologies and attitudes.

ANTH 363 Law and Society (3 credits) Prerequisite: See N.B. numbers (1) and (3). This course situates the study of law in crosscultural perspective. It involves an examination of the kinds of institutions found in place of courts in non-Western societies. The course also explores numerous issues of relevance to the legitimacy of contemporary Western legal systems, such as the relationship between law and morality, the idea of right prior to good, and the nature of legal reasoning.

## ANTH 371 Peasant Societies and Cultures

 ( 3 credits)Prerequisite: See N.B. number (1). This course examines agrarian societies in different cultural and political contexts. The course begins with a brief discussion of the archaeological evidence for early and later Neolithic agriculturalists. This is followed by an examination of peasantries, their persistence and transformation. The course concludes with a discussion of the role that subsistence producers play in contemporary societies.

## ANTH 375 Social Construction of <br> Sexuality (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course provides a cross-cultural, interdisciplinary approach to the study of human sexuality. There
are three major components. One explores the validity of contemporary sexual beliefs and attitudes. Another focuses on the extent to which sexual beliefs and behaviours are socially organized. A third provides an introduction to theories which examine how biological and/or social forces shape our sexual lives.

## ANTH 379 Cross-Cultural Perspectives on Gender (3 credits)

Prerequisite: See N.B. numbers (1) and (3). The course explores through different theoretical perspectives and ethnographic examples, crosscultural differences in sex/gender systems. A comparative analysis of gender relations in band, tribal, and state societies is undertaken. Topics discussed include the sexual division of labour, the cultural and social construction of gender, and the impact of economic development. NOTE: Students who have received credit for ANTH 308 may not take this course for credit.

## ANTH 380 Contemporary Issues in Human Rights (3 credits)

Prerequisite: See N.B. numbers (1) and (3). The course develops, through case analysis, insight into the differing priorities and competing concepts of human rights and human dignity in "non-Western" cultural traditions as well as in "Western" societies. It explores the significance of religious and other ideological positions in the use and abuse of human rights by governments, extra-governments, international bodies, as well as the general public. The course also examines topics such as women's human rights, sexuality and human rights, and human rights in development, the limits of sovereignty, and state accountability.
NOTE: Students who have received credit for ANTZ or SOCI 380 may not take this course for credit.

## ANTH 381 Ethnic Communities in Canada

 (3 credits)Prerequisite: See N.B. numbers (1) and (3). This course aims at familiarizing students with the social factors and dynamics of contemporary ethno-cultural communities in Canada. Topics may include the immigration process and settlement; community development, structures, and organizations; the ethnic family; socio-economic status and achievement; cultural continuity and change; minority-majority relations and relations with other ethno-cultural communities.

## ANTH 385 Globalization and Transnationality (3 credits)

 Prerequisite: See N.B. numbers (1) and (3). Globalization has been used generally to denote the increasingly rapid and far-flung circulation of people, money, commodities, and images around the world. This course introduces students to a sample of issues covered by anthropologists and sociologists in respect to this process, while at the same time also exploring transnationalsocial networks that cross state borders but are not neccessarily global in scope.
NOTE: Students who have received credit for ANTZ 385 or SOCI 385 may not take this course for credit.

## ANTH 398 Selected Topics in Anthropology (3 credits) <br> ANTH 399 Selected Topics in Anthropology (6 credits)

Prerequisite: See N.B. number (1). Specific topics for these courses will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

## ANTH 420 Psychological Anthropology (3 credits)

Prerequisite: See N.B. number (2). This course examines and critiques the theoretical concepts of Western academic and folk psychology from the perspective of the psychologies of other cultures. Topics considered include the cultural construction of the emotions, personality development, perception, culture-bound psychiatric syndromes (such as windigo psychosis, amok), and altered states of consciousness, and indigenous theories of dream interpretation.

ANTH 422 Post-Modern Anthropology (3 credits)
Prerequisite: See N.B. number (2). A further examination of alternative theoretical approaches to the understanding of the symbolic. The course focuses on the contributions of literary theory, the philosophy of pragmatism, and post-structuralist and anti-psychoanalytic thought, to current debate in anthropology. NOTE: Students who have received credit for ANTH 426 may not take this course for credit.

## ANTH 423 Political Anthropology

(3 credits)
Prerequisite: See N.B. number (2). This course examines the political process and political organization in cross-cultural perspective. The focus is on how order is achieved in the absence of the state, as well as questions of leadership, power, and authority in different social contexts.
NOTE: Students who have received credit for ANTH 459 may not take this course for credit.

## ANTH 425 Religions in the Twenty-First

 Century (3 credits)Prerequisite: See N.B. number (2). This course examines the contemporary roles of religion as systems of meaning, a focus of social claims, and as elements of self-expression. This discussion is set within the historical trajectories of instances of globalization, such as colonization and the spread of world religions, conversions to Christianity and liberation theories, the politicization of Islam, or the emergence of New Age religions as new forms of identity.

## ANTH 430 Development Debates

 (3 credits)Prerequisite: See N.B. numbers (2) and (3). This course considers the systematic reduction of poverty and powerlessness at individual and societal levels. Several development problems are examined, including national debt crisis, population growth, urbanization, and various degrees of state withdrawal from regulating the market. Special emphasis is given to case studies from major regions of the Third World on the varied impact of development on gender relations and on the eradication of social and economic inequalities.
NOTE: Students who have received credit for SOCI 430 may not take this course for credit.

## ANTH 431 Neo-Marxism and Cultures

 (3 credits)Prerequisite: See N.B. number (2). This course analyses the relationships between economy and cultural systems. The first section is devoted to the concept of economic base and superstructure in the industrial world; the second section focuses on selected case studies of non-industrial cultures and industrial cultures. The course concludes with an appraisal of the quality of economic life in non-industrial cultures.
NOTE: Students who have received credit for ANTH 401 or 402 may not take this course for credit.

ANTH 433 Theories of Identity (3 credits) Prerequisite: See N.B. numbers (2) and (3). This course discusses theories of difference, pluralism, exclusion, nationalism, and racism within broader frameworks such as citizenship, multiculturalism, diaspora or transnationalism. This course will therefore review related theories of identity as these are currently addressed within anthropology/sociology and related disciplines.
NOTE: Students who have received credit for ANTH or SOCl 432, or SOCl 433 may not take this course for credit.

## ANTH 440 Culture, Language, and Mind (3 credits)

Prerequisite: See N.B. number (2); ANTH 212. This course looks at the relationship between linguistics and anthropology, and examines some of the issues in the linkage between language, culture, and thought.
NOTE: Students who have received credit for ANTH 306 may not take this course for credit.

ANTH 441 Material Culture ( 3 credits)
Prerequisite: See N.B. numbers (2) and (3). This course studies material objects and technologies and their role in the production of everyday social life and culture.
NOTE: Students who have received credit for SOCI 441 may not take this course for credit.

## ANTH 463 Current Debates in Kinship (3 credits) <br> Prerequisite: See N.B. number (2). From its

inception, the anthropological investigation of kinship has been centred around organization and regulation of so-called biological facts such as procreation and genetic relatedness or "consanguinity". The course examines how international adoption, new reproductive technologies, and gay and lesbian kinship reshape the way people think about kinship. NOTE: Students who have received credit for ANTH 461 or 462 may not take this course for credit.

ANTH 465 Legal Anthropology (3 credits) Prerequisite: See N.B. number (2). This course analyses the legal system as an institutionalized system of social control and meanings, using historical and comparative data. Special attention is given to the study of the interface of law and other areas of sociological inquiry, including social change, conflict, and decision-making.

## ANTH 471 Anthropology of Food

 (3 credits)Prerequisite: See N.B. number (2). This course approaches food through four main themes: archaeology of food production (domestication of plants and animals); class, cuisine, and the development of taste; cosmic and other symbolism of food; and the political economy of food and hunger.
NOTE: Students who have received credit for ANTH 340 may not take this course for credit.

ANTH 472 Youth Culture (3 credits) Prerequisite: See N.B. numbers (2) and (3). This course is concerned with the cultural agency of youth, with particular emphasis on the study of peer groups. The production of culture by youth is examined through a wide range of anthropological and sociological studies.

## ANTH 474 Symbols, Rituals, and the Body (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course examines the social roles of the body. Topics include body image and selfesteem, the symbolism of beauty and ugliness, height, hair, dress, the face, body language, health and fitness, eating and drinking patterns. The subject is considered in anthropological and sociological perspectives.
NOTE: Students who have received credit for SOCI 374 or 474 may not take this course for credit.

## ANTH 475 Men and Masculinist Theory

 (3 credits)Prerequisite: See N.B. numbers (2) and (3). This course is a review of the various and changing roles of men, the meanings of masculinity across cultures and the emerging men's movements. In a dialogue with feminism, the course moves towards humanism.
NOTE: Students who have received credit for SOCI 475 or for this topic under an ANTH/SOCI 498 number may not take this course for credit.

## ANTH 479 Feminism and Anthropology

 (3 credits)Prerequisite: See N.B. number (2). This course explores the dialogue between feminist theory and anthropology. Topics discussed include "feminist standpoint" theory and the critique of "objectivity" in feminist philosophy of science; feminist contributions to the historical development of anthropological theory; and the relationship between feminism and postmodernism in current debates on ethnography and fieldwork.

ANTH 495 Honours Essay (6 credits) Prerequisite: See N.B. number (2); ANTH 315; and permission of the Honours adviser. Under the supervision of an Anthropology staff member, the student prepares an Honours essay on a subject chosen in consultation with and approved by the professor.

## ANTH 498 Advanced Topics in Anthropology (3 credits)

## ANTH 499 Advanced Topics in Anthropology (6 credits)

Prerequisite: See N.B. number (2). Specific topics for these courses will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

# 31.330 <br> THEOLOGICAL STUDIES 

| Faculty | Chair <br> PAMELA BRIGHT, Professor <br> Assistant Professor and Graduate Program Director <br> CHRISTINE JAMIESON | Limited Time Appointments <br> - Biblical Studies <br> - Systemic Theology <br> Adjunct Professor <br> CHARLES KANNENGIESSER |
| :---: | :---: | :---: |
| Location | Loyola Campus <br> Hingston Hall B, Room: HB 306 <br> (514) 848-2475 |  |
| Department <br> Objectives | Theology builds a bridge between religious of the human person and of God, the Depa immense tradition of knowledge - especiall psychological insight, and theoretical elabor Within the spectrum of world religions, it focus tradition in particular. The Department is ded while expanding the horizons of those who | ce and human society. To expand understanding eeks to make accessible to all its students an interpretation theory, historical analysis, <br> the Christian experience, and the Roman Catholic training professional theologians and researchers appreciate their heritage. |



Because of the renumbering of courses in the Department, students should see $\$ 200.1$ for a list of equivalent courses.

## THEO 201 Introduction to Theological Studies (3 credits)

The course introduces the student to the structure, nature, and method of theological studies and the relation of these studies to the other sciences.

THEO 202 Introduction to Biblical Studies (3 credits)
This course provides a survey of the contents of the Bible, from Genesis to Revelation, and a practical introduction to the skills required to
understand biblical texts. Attention is paid to diverse approaches to interpretation which are used in historical, literary, or theological study of the Bible, and also to appropriate strategies for the use of biblical texts in liturgy, homilies, and personal prayer.
NOTE: Students who have received credit for THEO 222 or THEZ 202 may not take this course for credit.

THEO 203 Introduction to New Testament (3 credits)
This course studies the four major kinds of
writing found in the New Testament: Gospel, Letter, Apocalypse, Luke-Acts.
NOTE: Students who have received credit for THEO 310 may not take this course for credit.

## THEO 204 Introduction to Christian Ethics (3 credits)

This course is an introduction to the field of ethics in the context of Christian faith. Christian ethics is presented as an active quest towards understanding and guiding Christian moral living. There is a brief presentation of the historical background to Christian ethics, an exploration of the points of convergence with other religious traditions, as well as the interrelationship between morality and freedom. The course will include a reflection on the problem of evil as a diminishment of persons and societies as well as a section on moral development and moral maturity.
NOTE: Students who have received credit for THEO 350 or THEZ 204 may not take this course for credit.

## THEO 206 The Origins of Christianity

 (3 credits)A study of the historical origins of the Church with a view to understanding the creative originality of the Christian tradition. This study opens up possibilities for the rethinking of contemporary Christianity in the light of the common sources of diverse Christian tradition. NOTE: Students who have received credit for THEO 421 may not take this course for credit.

THEO 208 Celtic Christianity (3 credits) This course follows a historical line to show the connections of the pre-Christian Celtic beliefs with the early Christian Church of Celtic countries. While some emphasis is on history and culture, particular focus is placed on the spirituality of the Celtic people. While not limited to the lrish experience, the experience of the early Irish Celtic Church serves as a focal point in considering various patterns of human living as indicative of a particular spiritual vision. NOTE: Students who have received credit for this topic under a THEO 298 number may not take this course for credit.

## THEO 211 Introduction to Roman

 Catholicism (3 credits)This course offers an introduction to the contemporary Roman Catholic experience, and includes a treatment of the historical origins of Catholicism, its worship and liturgy, its spirituality, and its role in society and culture.

## THEO 212 Faith, Reason and the Religious Sense (3 credits)

This course investigates the basic human search for meaning in life using as a starting point the role of reason as openness to reality. This openness expresses itself as a fundamental desire for truth, goodness, and beauty. The course explores how these desires are constitutive of human existence, how various unreasonable strategies
are used to distort and deny them, and how a reasonable affirmation of them is possible.
NOTE: Students who have received credit for this topic under a THEO 298 number may not take this course for credit.

THEO 226 Theology and Myth (3 credits)
This course is a comparative study of mythology. The focus is on the role of myths in Christian theology, e.g. creation myths, origins of humanity, salvation myths, and others.

## THEO 233 Religious Pluralism in a

 Secular Culture (3 credits)The course focuses on the relationship between religion, pluralism, and secular culture. It deals specifically with the prevalence of pluralism in a society that has neither done away with, nor marginalized, religion. In the context of respect for human rights and freedom of conscience, a new kind of religious identity is emerging which is sensitive to context, procedure, and history. The course considers ways in which this new identity be communicated so that a community is constituted and not divided.
NOTE: Students who have received credit for THEO 232 may not take this course for credit.

THEO 234 Christian Spirituality (3 credits) The characteristics of Christian spirituality, its roots in scripture, the balance between contemplation and action, its communal dimension, its attitude to world, are analysed through the study of a selection of men and women whose lives exemplify various aspects of Christian spirituality over the past two thousand years. The course examines notions of transcendence and immanence, individuality and collectivity, nature and the divine.
NOTE: Students who have received credit for THEO 372 may not take this course for credit.

## THEO 236 Spirituality: Personal, Social and Religious Dimensions

 (3 credits)The course focuses on spirituality as a personal response to the human quest for transcendence. There is also an analysis of the ways in which spirituality creates a consensus for a social harmony and for creative exchanges between cultures, especially in the arts. The course includes a general reflection on the role of religion in fostering spirituality by marking it with explicit convictions about the ultimate goal of life, and also includes a specific section on the characteristics of Christian spirituality as a response to the Gospel.

THEO 238 Theology in Film (3 credits) This course examines a series of films to uncover their theological preoccupations, motives, and questions. Methods of analyses are discussed, in conjunction with screenings of selected films.

THEO 242 Theology and the Arts (3 credits)
This course is a theological reflection on various
art forms (music, dance, visual arts, architecture) throughout the history of Christianity.
NOTE: Students who have received credit for THEO 241 may not take this course for credit.

THEO 271 Women in Theology (3 credits) This course explores the emergence of a body of scholarly writing by women theologians. It looks at the questions raised and the critiques of traditional theological doctrines and interpretations, as well as suggesting different hermeneutical approaches to exegesis, theology, and history.

## THEO 276 The Icon: Theology in Colour

 (3 credits)The icon is both a theological medium and a theological message. The first is expressed by design, the latter by colour. The study of the icon offers the student an opportunity to explore theological meaning by means of image and symbolism as well as concept and reasoning.

THEO 298 Selected Topics in Theological Studies (3 credits)

THEO 299 Selected Topics in Theological Studies (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

THEO 301 The Hebrew Bible: History and Texts (3 credits)
An introduction to the historical contexts in which the Hebrew Bible was written, to its various literary genres (historical, prophetic, and poetic), and to contemporary methods of interpretation.

## THEO 303 The Old Testament in Theology (3 credits)

Selected texts from the Bible will be read in the light of contemporary scholarship, with attention to the use of these texts in theology, in worship, and in private prayer. The course focuses on the uses of the Bible, offering a critique of abuses in the past and present.
NOTE: Students who have received credit for THEO 300 may not take this course for credit.

THEO 315 Gospels and Acts (3 credits) This course is an introduction to the texts and teachings of the four canonical Gospels and to the Acts of the Apostles.

THEO 317 The Epistles and Revelation (3 credits)
This course is an introduction to the New Testament Epistles, and to the Book of Revelation, with a closer reading of selected texts.

## THEO 320 History of Christianity: First

 Millennium (3 credits)This course explores the historical foundations of the Church in the first five centuries, and the diverging experiences of the Church in East and

West to the end of the millennium.
NOTE: Students who have received credit for THEO 423 may not take this course for credit.

THEO 322 History of Christianity: Reformation and Modernity (3 credits)
This course explores the history of Christianity from the high Middle Ages through to the closing decades of the twentieth century, with special attention given to the ages of Reform and to the impact of the Enlightenment on the lifestyles, institutions, social attitudes, and intellectual life of modern Christians.
NOTE: Students who have received credit for THEO 425 may not take this course for credit.

## THEO 331 The Christian Understanding

 of God (3 credits)This course is the exploration of God as ultimate reality in Christian history, and in the context of contemporary issues such as world religions, gender, and new forms of language about God.
NOTE: Students who have received credit for THEO 430 may not take this course for credit.

## THEO 333 Jesus Christ in History and Faith (3 credits)

This course studies the biblical and later traditions about the person of Jesus Christ, both from a historical and doctrinal perspective. The course, traditionally known as christology, also examines the central role of Christ in contemporary theology.
NOTE: Students who have received credit for THEO 332 may not take this course for credit.

## THEO 335 The Church in the World (3 credits)

This course reflects on the nature of the Church as People of God situated in the modern world. Topics to be explored are the notions of belonging, freedom and authority, church and society. NOTE: Students who have received credit for THEO 334 may not take this course for credit.

## THEO 337 The Christian Mysteries (3 credits)

This course examines the history, the symbols, and the images of ritual and liturgical communication in Chistianity, especially in baptism and eucharist. These "mysteries", as the Christian sacraments were originally called, will be studied in the context of a Christian life.
NOTE: Students who have received credit for THEO 336 may not take this course for credit.

## THEO 340 Private Prayer and Public

 Worship (3 credits)Prayer is shown as a basic human act. The course will explore diverse traditions of the communal forms of worship as well as the many forms of private prayer that have been practised in Christian churches.
NOTE: Students who have received credit for THEO 370 may not take this course for credit.

THEO 351 Applied Ethical Issues (3 credits)
This course explores controversial issues in areas of personal ethics (such as euthanasia, abortion, human sexuality, health care, aging), and social ethics such as social justice and economic issues, war and peace.
NOTE: Students who have received credit for THEO 390 may not take this course for credit.

THEO 353 Clinical Ethics (3 credits)
This course explores some of the more common problems in health-care ethics. The course makes a distinction between clinical ethics and medical ethics, in the sense that these topics will be discussed from within a multidisciplinary perspective.

| THEO 398 | Selected Topics in Theological <br> Studies (3 credits) |
| :--- | :--- |

THEO 399 Selected Topics in Theological Studies ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule. NOTE: All 400-level Theology courses have as their prerequisite an appropriate 300-level Theology course, or its equivalent, with permission of the Department.

THEO 402 Pastoral Ministry (3 credits)
The course introduces the student to the history and theology of pastoral ministry.

THEO 404 Practicum in Pastoral Ministry (3 credits)
Prerequisite: THEO 402 and permission of the Department. This course complements THEO 402 as the internship and field exploration of a particular pastoral ministry. It will be supervised by experts or experienced individuals in the various fields of ministry, e.g. eldercare, bereavement, hospital, school, youth ministries, and others.

## THEO 497 Selected Topics in Theological Studies (3 credits)

THEO 498 Selected Topics in Theological Studies (3 credits)

THEO 499 Advanced Topics in Theological Studies (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## $31.500 \begin{aligned} & \text { COLLEGES, INSTITUTES AND } \\ & \text { SCHOOLS }\end{aligned}$

The Faculty of Arts and Science is the largest Faculty in the University. In order to combat the depersonalization so often found in a large faculty, the Faculty of Arts and Science has created smaller, more manageable units offering a personalized approach to education. At present, there are six such units in existence: Liberal Arts College, Lonergan University College, Loyola International College, School of Community and Public Affairs, Science College, and Simone de Beauvoir Institute. Each unit is composed of a group of students and fellows who are united by a particular philosophy of education.
Each unit operates in much the same fashion. Normally a student admitted to the University will enrol in a specific department-based program - a Major, Specialization, or Honours. Students in the Liberal Arts College may, however, elect to enrol in the College Major in Western Society and Culture instead of in a departmental program. Similarly, students in the Simone de Beauvoir Institute may enrol in a Major program in Women's Studies. Students who enrol in the School of Community and Public Affairs must follow the Major in Community, Public Affairs and Policy Studies. Students attracted by the particular educational opportunities offered by one of the units will apply to the unit in question. Once admitted to the College, Institute, or School of their choice, students may benefit from the academic curriculum, the extra-curricular activities, and social and intellectual environment provided in each of these units. It is the goal of these units to assist students to broaden their specialized disciplinary education with carefully chosen electives, with specially designed tutorials, and with career-oriented advising, all set in a more personal and friendly "university college" environment.
Each unit has a physical location of its own, where its students may gather to exchange ideas, whether in the classroom or in one of the lounges provided for such interaction. As well, there may be a library of basic books and periodical literature. From time to time, there will be planned activities, special-interest seminars, and stimulating lectures by invited guest speakers.
Each unit has a group of faculty members from within the University assigned as fellows or tutors, whose major function will be to act as student advisers. Together, students and fellows or tutors plan a carefully integrated undergraduate program based on the philosophy of education promoted. The advantage of this approach to education is that students may utilize the resources of a large Arts and Science Faculty, yet still enjoy the effective interchange of ideas that only a small unit can provide.

### 31.515 co-operative education

Through the Institute for Co-operative Education, the University offers programs in the co-operative format in the Departments of Chemistry and Biochemistry, Economics, Études françaises, Mathematics and Statistics, and Physics in the Faculty of Arts and Science; in the Departments of Building, Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, and Mechanical and Industrial Engineering in the Faculty of Engineering and Computer Science; and in the Departments of Accountancy, Decision Sciences and Management Information Systems and Marketing in the John Molson School of Business.
Co-operative programs in the Faculty of Arts and Science are open to students who are enrolled in many of the Honours and Specialization programs offered by the above Departments. As it becomes feasible the University may consider offering other disciplines in the co-op format. (Please see §24 of this Calendar.)

# 31.520 

## LIBERAL ARTS COLLEGE

Principal and Permanent Fellow<br>HARVEY SHULMAN, Professor, Political Science<br>Permanent Fellows<br>GEOFFREY C. FIDLER, Associate Professor, Education<br>FREDERICK H. KRANTZ, Associate Professor, History

Full-Time Fellows
ERIC BUZZETTI, Assistant Professor, Liberal Arts College
ARIELA FREEDMAN, Assistant Professor, Liberal Arts College
KATHARINE STREIP, Assistant Professor, Liberal Arts College

Non-Teaching Fellows<br>PAMELA BRIGHT, Associate Professor, Theological Studies<br>MICHAEL BROSS, Associate Professor, Psychology<br>ANDRÉ FURLANI, Assistant Professor, English BENOÎT LÉGER, Assistant Professor, Études<br>françaises<br>IRA ROBINSON, Professor, Religion<br>FRANZISKA SHLOSSER, Associate Professor, History

|  | Sir George Williams Campus |
| :--- | :--- |
| Location | Annex RR, Room: 103 |
|  | (514) $848-2565$ |

The Liberal Arts College, a small community of fellows and students, provides a unique liberal arts emphasis within the Faculty of Arts and Science. Built on a core of eight courses, the multidisciplinary curriculum is designed to guide students in exploring the foundations and development of Western civilization and culture. The aim is to foster the major values of the Western tradition - those of critical thinking and respect for intellectual freedom.
The major goal of Liberal Arts College is to assist the student in the process of becoming an educated person. The College seeks to translate into modern idioms the traditional vision of education as a preparation for life. Its core courses and seminars, sharing a common concern with the changing nature of society and culture, aim at the development of an informed critical consciousness. Emphasis is also placed on sharpening the basic expressive and analytic tools indispensable to social and cultural understanding. All College students are expected to present, or to acquire, a knowledge of a second language (normally, French), necessary for their research and to write and to express themselves clearly. Training in research techniques is stressed, and original, independent work encouraged.
Liberal Arts College, linking demanding general education to significant specialization, is committed to serious intellectual work. Through its curriculum, staff, standards, and academic environment, it hopes to communicate the excitement and creativity of such engagement to its students.

## Liberal Arts College Admission and Program Requirements

Students admitted to the University and seeking to enter the College must have a "B" average from cégep, or its equivalent. All students upon admission must demonstrate proficiency in English composition and a second language, or undertake necessary make-up work. ${ }^{*}$ All applicants should apply through the Office of the Registrar; they should also call or write the College for an interview. Mature students are admitted to the College on the basis of an interview and an examination of their record. Full-time degree candidates will normally complete their College core curriculum within three academic years; part-time degree candidates should complete their College core curriculum within six academic years. Students who have been admitted to departmental Honours programs must maintain a " B " average in their College core curriculum; all others must maintain a " C " average in their College core curriculum. All Honours students in the College are expected to undertake significant original work, on a staff-guided basis, in their final year.
*Les étudiantes et étudiants francophones devront donner la preuve de leur connaissance de la langue anglaise.

## Staff

Faculty fellows chosen from the University's Departments form the staff of all College courses, seminars, and tutorials. Teaching fellows are resident in the College, as is its principal, who also teaches in the core curriculum.

## Facilities

Liberal Arts College is located on Concordia University's downtown Sir George Williams Campus. Its seminar and tutorial teaching is done in the same building that houses the College's principal and core fellows. The College has student study areas, a course-materials library, and audio-visual facilities, as well as common room and a collection of important newspapers, journals, and periodicals. The College, the focus of an extra-curricular program of visiting speakers and cultural events, is a place where the exchange of ideas and views generated in courses and seminars continues on a more informal basis.

## Counselling

Close student-faculty contact and exchange is part of the Liberal Arts College's stress on serious intellectual work. Each student is assigned to a faculty fellow who acts as a personal adviser, and who follows the student's progress through the College, advising on the choice of disciplinary or area specialization. All students' work is evaluated annually by the principal and fellows.

## College Council

Council, composed of fellows and students, is the formal decision-making body of Liberal Arts College. It meets regularly, chaired by the principal, as a forum in which current issues and future policy are discussed and decisions taken. Council is that body which ensures the democratic participation of all members of the College in its on-going academic and extra-curricular work.

## Programs

All Liberal Arts College students must take the core curriculum. These interrelated courses constitute a significant segment of the course work required for College-sponsored BA programs. Liberal Arts College stresses Honours-level work, although a student may, with the permission of the College, combine the core curriculum with a departmental Specialization or Major program, or with the Individual Studies programs. Selected students may, with College permission, be admitted to the College's BA Major in Western Society and Culture.

42 Liberal Arts College - Core Curriculum Stage 1
18 LBCL $291^{6}, 292^{6}, 295^{6}$
Stage II
18 LBCL $391^{6}, 393^{6}, 396^{3}, 397^{3}$

Stage III
6 LBCL 490 ${ }^{6}$

In addition to completing the core curriculum, students must meet the Faculty of Arts and Science degree requirements and complete a departmental Major, Specialization, or Honours program, or the Individual Studies program, or the Major in L.A.C. Western Society and Culture.
The core curriculum may also be applied towards Specialization or Honours work in the Individual Studies Program. (See $\S 31.170$ of this Calendar).
All College students must consult with a College adviser before selecting courses in other disciplines or fields. Generally, courses in the Liberal Arts College are open only to members of the College.

Honours candidates must maintain a "B" average in their College courses, with no grade lower than a " $C$ ". Students in a Major or Specialization program must maintain a " $C$ " average in their College courses, with no grade lower than a "D".

| 42 | BA Major in Western Society and |
| ---: | :--- |
| Culture |  |
| Stage / |  |
| 18 | LBCL 2916 $, 292^{6}, 295^{6}$ |
| Stage II |  |
| 18 | LBCL $391^{6}, 393^{6}, 396^{3}, 397^{3}$ |
|  | Stage III |
| 6 | LBCL $490^{6}$ |

30 Minor in Western Society and Culture Stage I
18 LBCL $291^{6}, 292^{6}, 295^{6}$
Stage II
12 LBCL $391^{6}, 393^{6}$
18 LBCL $391^{6}, 393^{6}, 396^{3}, 397^{3}$
Stage III
6 LBCL 490 ${ }^{6}$
The College advises students who are enrolled in the BA Major in Western Society and Culture to take, in addition, some form of concentrated study (Major, Minor, etc.) within a single Department or field of study.

Further information on core courses and College programs generally may be obtained either by writing for the Liberal Arts College Informational Brochure or by calling the Liberal Arts College. Personal interviews with a fellow of Liberal Arts College may be arranged through the secretary.

Admission into a departmental Honours program requires the approval of the Department.
Students seeking admission to a departmental Honours program will be bound by the Honours requirements outlined in $\S 16.2 .3$ of this Calendar.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## LBCL 201 Great Books: Western History and Thought from Antiquity through the Renaissance (3 credits)

Social and political theory are central, and art, music, and scientific thought are represented. Key texts include the Bible, Plato's Republic, Thucydides' Peloponnesian Wars, St. Augustine's
City of God, and Machiavelli's Prince and Discourses.
NOTE: Students who have received credit for LBCL 291, 292, or LBCZ 201 may not take this course for credit.

LBCL 202 Great Books: Western Culture and Expression from Antiquity through the Renaissance (3 credits)
Literature, religion, and philosophy are central, and art and music are represented. Key texts include Homer's Odyssey, Virgil's Aeneid, Montaigne's Essays, and Shakespeare's King Lear.
NOTE: Students who have received credit for LBCL 291, 292, or LBCZ 202 may not take this course for credit.

LBCL 203 Great Books: Western History and Thought from the Reformation through Modernity (3 credits)
Prerequisite: LBCL 201 or LBCL 202 or permission of the College. Social and political theory are central, and art, music, and scientific thought are represented. Key texts include Calvin's Institutes, Descartes' Discourses on Method, Hobbes' Leviathan, and Mill's Essay on Liberty. NOTE: Students who have received credit for LBCL 291, 292, or LBCZ 203 may not take this course for credit.

LBCL 204 Great Books: Western Culture and Expression from the Reformation through Modernity (3 credits)
Prerequisite: LBCL 201 or LBCL 202 or LBCL 203 or permission of the College. Literature, religion, and philosophy are central, and art and music are represented. Key texts include Milton's Paradise Lost, Rousseau's Confessions, Stendhal's The Red and the Black, and Nietzsche's Genealogy of Morals.
NOTE: Students who have received credit for LBCL 291, 292, or LBCZ 204 may not take this course for credit.

LBCL 291 Structure and Dynamics of Western Civilization I (6 credits)
Prerequisite: Registration in the Liberal Arts College, or permission of the College. This course emphasizes the intellectual, cultural, and political traditions from the Biblical period and
classical antiquity to the mid-seventeenth century. Texts studied are related to changing social and historical contexts. Primary sources may include Genesis, Plato, Republic, Marcus Aurelius, Meditations, Thomas Aquinas, Summa Theologica, Machiavelli, Prince and Discourses, and Spinoza, Theological-Political Treatise.

LBCL 292 Modes of Expression and Interpretation I (6 credits)
Prerequisite: Registration in the Liberal Arts College, or permission of the College. A study of major Western literary, religious, and philosophical traditions, involving the reading and interpretation of significant texts from antiquity to the mid-seventeenth century. Emphasis is placed on development of writing skills and interpretative analysis. Primary texts may include Homer, Odyssey, Plato, Symposium, Augustine, Confessions, Dante, The Divine Comedy, and Racine, Phèdre.

LBCL 295 History of Art ( 6 credits) Prerequisite: Registration in the College, or permission of the College. This course is an integrated study of the nature of the visual arts from antiquity to the twentieth century. Artistic expression is examined through chronological and thematic approaches, with attention to the relation between art and society.

## LBCL 298 Liberal Arts College Selected Topics (3 credits) <br> LBCL 299 Liberal Arts College Selected Topics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

LBCL 391 Structure and Dynamics of Western Civilization II ( 6 credits)
Prerequisite: LBCL 291; LBCL 292; LBCL 295; or permission of the College. This course emphasizes the intellectual, cultural, and political traditions from the mid-seventeenth century to 1914. Texts studied are related to changing social and historical contexts. Primary texts may include Locke, Second Treatise of Government, Rousseau, The Social Contract, Wollstonecraft, A Vindication of the Rights of Woman, Marx, Capital, and Freud, Dora.

## LBCL 393 Modes of Expression and Interpretation II (6 credits)

Prerequisite: LBCL 291; LBCL 292; LBCL 295; or permission of the College. A study of major Western literary, religious and philosophical traditions from the mid-seventeenth century to 1914. Primary texts may include Stendhal, The Red and
the Black, Diderot, Le neveu de Rameau, Goethe, Faust, Nietzsche, The Genealogy of Morals, and Baudelaire, Les fleurs du mal.

LBCL 396 History of Music (3 credits)
Prerequisite: LBCL 291; LBCL 292; LBCL 295.
This music history course is designed to introduce the important developments in the history of European music from the Classical period to the present day. Course content introduces students to musical structure, period styles, and selected works by major composers, setting these within their historical contexts

LBCL 397 The Sciences and Society (3 credits)
Prerequisite: LBCL 291; LBCL 292; LBCL 295; or permission of the College. The science component of the Liberal Arts College core curriculum emphasizes the nature of modern science, principally through its development across the nineteenth and twentieth centuries. Primary sources may include Darwin, Origin of the Species and Kuhn, The Structure of Scientific Revolutions.
NOTE: Students who have received credit for LBCL 493 may not take this course for credit.

LBCL 398 Liberal Arts College Selected Topics (3 credits)

LBCL 399 Liberal Arts College Selected Topics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

LBCL 490 The Twentieth Century: Forms, Themes, Critiques ( 6 credits) Prerequisite: LBCL 391; LBCL 393; or permission of the College. This course emphasizes key issues in contemporary society and culture. Major twentieth-century texts and documents - philosophical, literary, political, and artistic, as well as analytical materials drawn from history and the social sciences, are read. Primary sources may include de Beauvoir, The Second Sex, Bell, The Cultural Contradictions of Capitalism, Woolf, To the Lighthouse, Levi, Survival in Auschwitz, Hayek, The Fatal Conceit, as well as theorists such as Foucault, Irigaray, Kristeva, McKinnon, Lévi-Strauss, Barthes, and Derrida.

LBCL 491 Integrative Seminar (6 credits) Prerequisite: Permission of the College. Students who have received credit for LBCL 490 may register for LBCL 491 provided the subject matter is different.

## LBCL 498 Liberal Arts College Advanced Topics (3 credits)

LBCL 499 Liberal Arts College Advanced Topics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.530 UNIVERSITY COLLEGE 

Principal
WILLIAM P. BYERS, Professor, Mathematics
and Statistics

| Location | Loyola Campus <br> 70302 Sherbrooke Street West <br> (514) 848-2280 |
| :--- | :--- |
| Objectives | The members of Lonergan University College seek to engage in interdisciplinary dialogue about <br> fundamental questions of value in culture, art, science, and religion. The College is dedicated both <br> to studying Bernard Lonergan's interdisciplinary approach and to fostering students' capacities for <br> interdisciplinary dialogue. <br> As teachers and students of traditional disciplines in the University, members participate in a Fellows <br> seminar, student seminars, and lectures at the College. |

## Dedication

Lonergan University College is named in honour of Dr. Bernard F. Lonergan, a former student, and later a professor at Loyola College, Montréal. Dr. Lonergan's work has been recognized throughout the world and is the subject of several hundred books and dissertations. Recently, an international Journal of Lonergan Studies has been initiated in the United States.

## General Philosophy

Lonergan University College exists for those students and professors who believe in an education beyond the current tradition of depersonalized and compartmentalized knowledge. Lonergan students maintain a regular department-based program of studies. At the same time, however, they share with others the dynamics of human enquiry that transcends the narrowness of disciplinary methodologies.

## Inquiry into "Value"

The Fellows of Lonergan University College are convinced that the deepest issues of life are implicitly involved in all the academic disciplines, and that both honesty and sanity demand that we attend to this fact and reflect upon it.
The scholarship of the College is clearly concerned with values: they may be values centred on the question "should it be done?" as opposed to "can it be done?"; they may be values so entrenched in fundamental assumptions as to appear self-evident and beyond argument; or they may be values considered by some to be ultimate and beyond rational understanding. In each case, the value systems are exposed and critically analysed, allowing the individual to come to his or her own conclusions.

## Method

The College has adopted an educational strategy which is interdisciplinary and empirical.
This strategy is interdisciplinary and multi-disciplinary because central and ultimate issues of human life are involved in all disciplines; yet many of these issues overlap the traditional boundaries of knowledge and must be analysed without the dominance of any one perspective.
This strategy is empirical in the sense that all knowing begins with enquiry about experience of the world and of ourselves as subjects. Resulting judgement of truth and value must be verified through a methodologically precise appeal to this experience. Following this strategy, Lonergan students use their departmental study as a resource to be shared and extended by working with students and Fellows from other Departments on a common intellectual project as determined by one of the Lonergan courses.
The work and method of Bernard Lonergan are studied by many of our students. His influence is reflected in the concept of education at the College whether or not students choose to study his work explicitly.

## The Style of the College

Lonergan University College offers its students all the resources of Concordia University. Lonergan students take a regular degree program in the Department of their choice on either of the two campuses of Concordia University. Moreover, the College aims to contribute to a style of life which will heighten intellectual experience and enrich personal growth during the student's university years.

It does this, not by claiming to "raise standards", but rather by demanding that its students relate what they learn to their personal lives and deeper values.
A university is the place where the universe should be discussed and intellectually appropriated. Conversation, as much as courses or research, is at the heart of university life. It is precisely this aspect of university life that has been undermined in this century by the incredible growth in knowledge itself, and by the proliferation of specialities. What universal knowledge is now possible? What do students have in common to discuss?
Lonergan University College believes that there is something in common to be discussed, and dedicates its resources to assure the depth and vitality of that discussion. It involves all its members, both students and Fellows, in structured conversation that will grow in breadth and meaning through the three years of a student's university career.

## Membership

Students may join the College with an intention to register for a LUCC course, and after an interview with the College principal. Students are entitled to use the College lounges and resource centre, to participate in the social and intellectual activities of the College, and to be a member of the Lonergan University College Student Association.
Students must fulfil the degree requirements of their own Faculty, and must be enrolled in either a departmental or interdisciplinary Major, Specialization or Honours program.
Once students have completed 12 credits of LUCC courses, they meet the requirements for membership in Lonergan University College. They will be graduated officially as Lonergan students and will have this fact noted on their transcripts.

## Program

## 24 Minor in Lonergan Interdisciplinary Studies

Those students who are members of Lonergan University College, and who want to strengthen the academic component of their work in the College, may take the following academic minor:
3 LUCC $202^{3}$ The Creative Self
12 LUCC $399^{6}$ Lonergan College Seminar: the theme of the Lonergan College Seminar changes yearly. The seminar must be taken twice at six credits each time for a total of 12 credits
9 credits at the 300 or 400 level

## College Facilities and Activities

The College is governed by a set of by-laws, and by a College Council composed of students and Fellows.
The central activity of the College is its weekly seminar. The seminar focuses each year on the work of a major thinker, one who has decisively influenced our culture for good or for evil. The topic will change each year, but the depth of human integration and social awareness of the authors we choose ensures continuity in our discussion. As participants in the seminar are competent in diverse academic disciplines, an understanding of the topic develops which on the one hand does justice to the diversity of contemporary awareness, and on the other demands levels of understanding which transcend technical jargon. An internationally recognized scholar will be invited to come to Lonergan University College as the "Distinguished Visiting Scholar", to lead the College seminar. The Visiting Scholar will also give university lectures and public addresses, as deemed appropriate.
Each student of Lonergan University College joins with a small number of others to form a seminar group. College Fellows will direct the group and be available for academic advising to students.
These groups will meet for two hours every week.
Students and Fellows will be encouraged to share in College government, to participate in College events, and, in various ways, to make the College the centre of their lives at the University.
The College offers a comfortable lounge, a specialized library, and several quiet rooms for study. It also has a research centre for Lonergan studies with a complete set of manuscripts, and of published works.

## Admissions and Applications

Students seeking admission to the College should fill in the appropriate section (Box D) of the University Admissions Application form. Interested students may also contact the College directly by telephoning, or by coming to the College, or else by writing to the College at the following address: 7141 Sherbrooke Street West, Montréal, Québec, H4B 1R6. Each candidate for admission will be invited to an interview with the principal.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

LUCC 202 The Creative Self (3 credits) This course is cross-listed with INTE 202. This course explores the relationship between experi-
ence, understanding and coming to knowledge as a contemporary person in search of identity. It is structured around the exploration of these
questions: How can life experience become a source of creative understanding? How can the learning process become one's own? What methods are available to help us learn how to learn? How can we learn to live what we know? NOTE: Students who have received credit for LUCC 200 or INTE 202 may not take this course for credit.

LUCC 298 Introduction to Selected Interdisciplinary Problems (3 credits)

LUCC 299 Introduction to Selected Interdisciplinary Topics ( 6 credits)

Specific topics for these courses will be stated in the Undergraduate Class Schedule.

LUCC 333 Interdisciplinary Approaches to the Study of Peace (6 credits)
This course is cross-listed with INTE 333. This course aims to introduce students to the study of peace and enable them to think critically about contemporary circumstances that condition the search for peace. Using specific case studies and appropriate methodologies, the course examines the role of values, cultures, and ideologies in the attainment of peace. This course is presented in cooperation with the Loyola Peace Institute. NOTE: Students who have received credit for LUCC 499A or INTE 333 or 499A may not take this course for credit.

## LUCC 398 Special College Seminar (3 credits)

Students who for good reason cannot follow the regular College Seminar (LUCC 399) meet every second week for two semesters or every week for one semester, under the direction of a College Fellow. The same text is read as in the regular seminar, and the discussion has the same aim.

## LUCC 399 Lonergan College Seminar

 ( 6 credits)Every year, faculty and students at the College engage in the study of a major thinker who has decisively influenced Western culture (e.g. Gandhi, Arendt, Dostoevsky, Galileo,

Nietzsche, Freud, Darwin), or from time to time, a theme which the College Council feels to be particularly appropriate (e.g. Literary Criticism, Contexts of Canadian Cinema). The course is directed by a Visiting Scholar with particular expertise in the person or theme under discussion. The Visiting Scholar meets with the faculty and students bi-weekly and on the following week the students meet in small groups with individual Fellows.

## LUCC 410 The Works of Bernard Lonergan (3 credits)

This course is cross-listed with INTE 410. This course engages students in the task of integrating their specific fields of studies into the more general enterprise of human knowing and deciding. It reflects upon this experience with the aid of Bernard Lonergan's methodology. The texts are selected from the work of Lonergan. NOTE: Students who have received credit for INTE 410 may not take this course for credit.

## LUCC 441 Issues in Contemporary Values (3 credits)

This course is cross-listed with INTE 441. This course addresses central questions concerning what we love or detest, embrace or reject, prescribe or proscribe; what resources of human being, e.g. philosophical, psychological, or artistic, are implicitly or explicitly drawn upon in these choices; whether the choices we make are mere "preferences", or have objective status as values; and how these questions relate to the problems of our culture and our time. Through alternating emphases and faculty, the focus is changed from time to time.
NOTE: Students who have received credit for LUCC 440 or INTE 440 or 441 may not take this course for credit.

## LUCC 498 Lonergan University College Selected Problems (3 credits) <br> LUCC 499 Lonergan University College Selected Topics ( 6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

# 31.535 .om INTERNATIONAL COLLEGE 

## Co-Principals

WILLIAM BUKOWSKI, Professor, Psychology ROSEMARIE SCHADE, Associate Professor, History

Fellows
PAMELA BRIGHT, Professor, Theological Studies
WILLIAM P. BYERS, Professor, Mathematics and Statistics

JOHN P. DRYSDALE, Adjunct Professor, Sociology and Anthropology
DAVID HOWES, Associate Professor, Sociology and Anthropology
JAMES MOORE, Professor, Political Science
ANDREW WAYNE, Associate Professor, Philosophy

|  | Loyola Campus |
| :--- | :--- |
| Location | (5141 Sherbrooke St. W., Room: VE 327 <br>  $\mathbf{5 1 4} \mathbf{8 4 8 - 2 1 2 5}$ |

The Loyola International College is designed as a secular college that addresses the academic needs of selected undergraduate students who seek to balance discipline-based instruction with interdisciplinary and cross-disciplinary communication in the arts and sciences. The educational philosophy of the College incorporates several objectives. These are to integrate international and global perspectives into higher education, to foster understanding of how the individual and society can operate more effectively in a global context of increased intercultural interaction, to balance discipline-based instruction with interdisciplinary inquiry and cross-disciplinary communication, and to promote responsible citizenship and leadership in the twenty-first century.
The Loyola International College is comprised of two distinct academic programs. They are the Loyola International College Core Program and the Foundation Year.

## Membership

In order to qualify for membership to the Loyola International College, students must be enrolled in an undergraduate degree program and satisfy the academic entry requirements of the College. Interested applicants may obtain a copy of the Loyola International College Program Application Form from the Principals of the College. Candidates who meet the academic entry requirements will then be asked to submit a sample of written work in response to an assigned topic or question and to prepare for an interview with the Loyola International College Selection Committee. Students must fulfil both their degree requirements and those of the Loyola International College. Students who complete the requirements of their Honours, Specialization, or Major in their specific discipline and the Core Program or Foundation Year of the College will be designated "Member of the Loyola International College."

## Entrance Requirements for the Core Program

The Core Program is intended for students previously accepted to a 90 -credit or 108 -credit undergraduate degree program. Students accepted to the 120 -credit Extended Credit Program (ECP) who have advanced standing may also be considered. Students admitted to the University and seeking admission to the Loyola International College Core Program must have achieved a "B" average, a CRC score of 25 , or the equivalent at the previous educational level. Interested students who do not have the previously stated academic standing may also apply to the Core Program. Their application form should be accompanied by a reasoned letter as to why they should be considered for admission by the Loyola International College Selection Committee.

## Entrance Requirements for the Foundation Year

The Foundation Year is intended for students previously accepted to a 120-credit Extended Credit Program (ECP) in an undergraduate degree. Students admitted to the University and seeking admission to the Loyola International College Foundation Year must have achieved a " B " average or the equivalent at the previous educational level. Interested students who do not have the previously stated academic standing may also apply to the Foundation Year. Their application form should be accompanied by a reasoned letter as to why they should be considered for admission by the Loyola International College Selection Committee.
For further information on either the Core Program or the Foundation Year, objectives, or application, please contact the Loyola International College at (514) 848-2125.

24 Core Program
Stage I
9 LOYC $210^{3}, 220^{3}, 230^{3}$
Stage II
9 LOYC $310^{3}, 320^{3}, 330^{3}$
Stage III
6 LOYC $410^{3}, 420^{3}$

## 15-27 Foundation Year

6 LOYC $201^{3}, 202^{3}$
*9-21 ANTH 272 ${ }^{3}$; CHEM 2093; HIST 2013, 202 ${ }^{3}$, 29813 ${ }^{3}$; POLI 2053; RELI 298C ${ }^{3}$; THEO $233^{3}$
*Students must obtain permission from the Principal of the Loyola International College regarding course substitutions. Students who have received credit for these courses within their departmental program may not take these courses for credit toward their Loyola International College Foundation Year.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## LOYC 201 The Idea of Modernity

 (3 credits)Prerequisite: Enrolment in the Loyola International College Foundation Year or permission of the College. The fundamental ideas and assumption of the modern Western world were formed in the seventeenth-century European Enlightenment.
This course begins with an historical overview of the Enlightenment, followed by an interdisciplinary investigation of the idea of modernity. If focuses on the central modern concepts of a person, society, nature, and good and evil, and looks at some challenges to the idea of modernity. Finally, it explores current pressures that have led to the contemporary form of thought known as postmodernism.

## LOYC 202 What is the Environment?

 (3 credits)Prerequisite: Enrolment in the Loyola International College Foundation Year or permission of the College. The purpose of this course is to explore the broad set of interdependent phenomena that comprise the environments in which people live. These are: a) the natural environment of rocks, air, water, plants, and animals; b) the built environment including characteristics of cities, workplaces, and homes; and c) the cultural environment including the beliefs, attitudes, and institutions that affect how people perceive and behave in the environment.

## LOYC 210 The Twentieth Century

 (3 credits)Prerequisite: Enrolment in the Loyola International College Core Program or permission of the College. This course provides select coverage of aspects of the historical forces and events that shaped the twentieth century. The historical background of issues such as wars and peace, colonialism and postcolonialism, economics and the environment, and questions about ethnic and national diversity and cultural perception are explored. The course is intended to develop critical thinking together with basic bibliographic and writing skills.
NOTE: Students who have received credit for HIST 283 or HISZ 283, or for this topic under an

HIST 298 or HISZ 298 number may not take this course for credit.

## LOYC 220 The Contemporary World

 (3 credits)Prerequisite: Enrolment in the Loyola International College Core Program or permission of the College. From a variety of perspectives, including historical, environmental, economic, and cultural, this course examines major issues facing the world today. These issues may include international trade and the economy, the regulation of garbage and pollution, the decline in cultural variability, the spread and control of disease, and the effects of mass communication. This course is intended to develop an appreciation of a global view of the challenges which the world is likely to face in the next few decades.

## LOYC 230 Globalization and Diversity

 (3 credits)Prerequisite: Enrolment in the Loyola International College Core Program or permission of the College. This course explores the main differences between the world's major cultures, religious beliefs, and philosophies, and addresses the tensions between establishing universal values and maintaining cultural diversity in an age of accelerating globalization. There is also an emphasis on the conception of different levels of social complexity, principally the role of the individual, the interpersonal, and the group within a society. This course is intended to develop team research and presentation skills, and the ability to communicate and work effectively within a small group setting.

## LOYC 310 Scientific Inquiry (3 credits)

Prerequisite: 24 credits including nine credits of LOYC courses, or permission of the College. This course explores the basic issues of the philosophy of science by examining the nature of science as an activity and a form of problem solving. Cultural variations in the philosophy and application of the principles of scientific inquiry are discussed as well as the strengths and weaknesses associated with experimental and
non-experimental approaches. This course is intended to develop critical thinking and analysis, and deductive and inductive reasoning.

LOYC 320 Biodiversity on Earth (3 credits) Prerequisite: 24 credits including nine credits of LOYC courses, or permission of the College. The current state of biodiversity around the world and the forces that affect this diversity are the main focus of this course. It addresses the origins of this diversity, the advantages of variability in the environment for human life, and the contemporary challenges to this diversity. This course is intended to emphasize holistic thinking and system analysis.

## LOYC 330 Self, Culture, and Development

## (3 credits)

Prerequisite: 24 credits including nine credits of LOYC courses, or permission of the College. This course examines, from a psychological perspective, how the concept of self varies across cultures. Whereas some cultures embrace the concept of the individual, other cultures emphasize the communal nature of social and personal existence. This theme is explored from several perspectives including theory about development, the treatment of "self" in literature, cultural variations in the concept of human rights, and the link between self and society. This course is intended to demonstrate the interface between the medical and social sciences and the analysis of change.

## LOYC 410 Culture and Communication

 (3 credits)Prerequisite: 60 credits including 18 credits of LOYC courses, or permission of the College. This course is an anthropological approach to variations in cultural experience as they relate to communication. Students explore modes of expression and communication, including literature and film, with a view to examining questions of interpretation, aesthetics, and ethical judgement. Personal expression and communication are also discussed. This course is intended to develop an awareness of the role of imagination and creativity in expression and interpretation, and sensitivity to the role of cultural and other differences in processes of communication.

LOYC 420 Integrative Seminar (3 credits) Prerequisite: 60 credits; 21 credits of LOYC courses including LOYC 410; or permission of the College. This course focuses on the conceptualization of cross-disciplinary inquiry and the problems of interdisciplinary communication. The role of discipline-based and cross-disciplinary research is studied. A brief intellectual history of discipline-formation and emerging interdisciplinary fields is discussed. This course is intended to develop advanced writing and speaking skills.

# 31.540 manaceamem AND PUBLIC AFFAIRS 

## Principal

DANIEL SALÉE, Professor, School of Community and Public Affairs, and Political Science

Vice-Principal
MARGUERITE MENDELL, Associate Professor, School of Community and Public Affairs

Associate Professor
ERIC SHRAGGE
Adjunct Professor
DAVID MACDONALD
Fellows
SHEILA ARNOPOULOS, Lecturer, Journalism WILLIAM BUXTON, Professor, Communication Studies

MIKE GASHER, Assistant Professor, Journalism<br>CHANTAL MAILLÉ, Associate Professor,<br>Simone de Beauvoir Institute<br>ALAN NASH, Associate Professor, Geography<br>LORNA ROTH, Associate Professor,<br>Communication Studies<br>FILIPPO SALVATORE, Associate Professor, Modern Languages and Linguistics JOHN ZACHARIAS, Associate Professor and Director, Urban Studies<br>Associate Fellow<br>MARVIN HERSHORN, Lecturer, Political Science

|  | Sir George Williams Campus |
| :--- | :--- |
| Annex CI, Room: 101 |  |
| (514) 848-2575 |  |

Objectives
The School of Community and Public Affairs (SCPA) offers a multidisciplinary program in public policy analysis. The School prepares its graduates to be knowledgeable participants in the policymaking process in the private, public, and community sectors.
An innovative combination of academic and practical training exposes students to a wide range of public issues. In small classes encouraging participation, students develop specialized abilities to do research, to communicate, and to organize public consultations and debates. An internship program also enables students to gain the necessary experience of working in a public affairs job.
The School will be of interest to excellent students in a variety of disciplines, including economics, history, political science, sociology, urban studies, journalism, and communication studies. While some of our students enter the work force upon completion of their undergraduate degree, the majority continue their education. SCPA graduates tend to do graduate work either in their disciplines or, more often, in professionally-oriented programs including Public or Business Administration, International Affairs, Industrial Relations, and Law.
The historic Mackay Street building which the School occupies is an ideal site for small classes, public lectures, social events, and meetings. School facilities include a common room, a reading room and documentation centre, a seminar room, a computer room, and faculty and student offices.

Students who enrol in the School of Community and Public Affairs must follow, in sequence, a three-stage program comprised of the following courses:

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42 BA Major in Community, Public
    Affairs and Policy Studies
    Stage I
12 SCPA 2013, 203 3},2153; INTE 296 3
    3 Chosen from SCPA 204/POLI 204 or
    SCPA 2113/POLI 2113
3 Chosen from SCPA 205%/HIST 205 or
    SCPA 2103/HIST 210
    Stage II
9 SCPA 3016, 321 }\mp@subsup{}{}{3
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3 Chosen from SCPA $353^{3} / \mathrm{SOCI} 353^{3}$; SCPA $333^{3} /$ SOCI $333^{3}$; SCPA $355^{3} /$ SOCI $355^{3}$; SCPA $398^{3}$ Stage III
9 SCPA $411^{3}, 412^{3}, 498^{3}$
3 Chosen from SCPA $460^{3} /$ COMS $460^{3}$;
SCPA $461^{3} /$ COMS $361^{3}$;
SCPA $465^{3} /$ COMS $465^{3}$

## The Disciplinary Program

Students enrolled in the SCPA Major program are strongly encouraged to combine the School's Major program with a departmental Major, Specialization, or Honours program, and meet the Faculty of Arts and Science degree requirements.

## Performance Requirements

Students are required to maintain an average of "B-" in program courses.

## Entrance Requirements

Students admitted to the University and seeking to enter the School must have achieved a "B" average, or the equivalent at the previous educational level. Students wishing to enter the School will be interviewed personally and asked to complete a writing test. The interview process also serves to evaluate their language skills in both English and French. In exceptional circumstances, a candidate who has failed to meet the grade requirements might be admitted on the basis of a personal assessment of potential capacities.
For further information on curriculum, programs, personnel, and objectives, please call (514) 848-2575.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

## SCPA 201 Introduction to Public Policy and the Public Interest

 (3 credits)This course introduces students to the theoretical, philosophical, and ethical foundations as well as the social logic of public policy formulation in modern societies. Using a multidisciplinary approach, it pays particular attention to the complex interaction between groups, individuals, and institutions in society, and brings students to consider issues related to the nature of the modern state, business-government relations, the labour movement, non-profit and community organizations, the influence of interest groups, media and international institutions on the policy agenda.
NOTE: Students who have received credit for SCPA 300 or SCPZ 201 may not take this course for credit.

## SCPA 203 Community and Public Affairs in Québec and Canada (3 credits)

This course examines the interaction between civil society organizations and the state in the particular context of Québec and Canada. It focuses on the labour movement, social movements and interest groups, and analyses their role and influence in the policy-making process in Québec and Canada, especially with regard to social policy, socio-economic development and human rights.
NOTE: This course is taught in French.
NOTE: Students who have received credit for SCPA 300 may not take this course for credit.

## SCPA 204 (also listed as POLI 204) Introduction to Canadian Politics (3 credits)

This course is a basic introduction to the fundamental issues of Canadian public life and the federal political system. It presents an overview of the constitution, institutions, political parties, electoral system, interest groups, and public opinion that represent the essential components of Canada's political culture and government. NOTE: Students required to take this course under Political Science as part of a Major or

Specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA adviser.

## SCPA 205 (also listed as HIST 205) History of Canada,

 Post-Confederation (3 credits) A survey of Canadian history from Confederation to the present, emphasizing readings and discussions on selected problems.NOTE: Students required to take this course under History as part of a Major or Specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA adviser.

## SCPA 210 (also listed as HIST 210) Québec since Confederation

 (3 credits)A survey of the history of Québec from the time of Confederation until the present. While due emphasis is placed on political developments in the province, the purpose of the course is to acquaint the student with the significant economic and social trends in modern Québec. NOTE: Students required to take this course under History as part of a Major or Specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA adviser.

SCPA 211 (also listed as POLI 211)
Québec Politics and Society/ La vie politique québécoise (3 credits)
This course is a study of the changing party structure and political issues in Québec and their relationship to constitutional, cultural, and economic factors.
On étudiera dans ce cours l'évolution structurelle des partis et des questions politiques au Québec en fonction de facteurs d'ordre constitutionnel, culturel et économique.

NOTE: Students required to take this course under Political Science as part of a Major or Specialization in that discipline must replace the credits with a course chosen in consultation
with the SCPA adviser.
NOTE: The course will be offered in both English and French on a rotational basis. Please consult the Undergraduate Class Schedule for details.

## SCPA 215 Economics for Public Policy and Community Development (3 credits)

Based on an overview of current economic issues, this course introduces students to the fundamental analytical tools and concepts that are necessary to understand economic public policy and relevant to community development and empowerment.
NOTE: Students who have received credit for SCPZ 215 may not take this course for credit.

## SCPA 298 Selected Topics in Community and Public Affairs (3 credits)

## SCPA 299 Selected Topics in Community and Public Affairs (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## SCPA 301 Social Debates and Issues in Public Affairs and Public Policy ( 6 credits)

Prerequisite: Successful completion of Stage I. This course emphasizes a deeper understanding of the process by which public policies are developed, implemented, and advocated, and of the role played by various institutions or groups in this process. Each year, a new set of key policy issues is selected for discussion and analysis. Students work in teams and are required to do case studies of institutions or groups relevant to the policy or public affairs issue they have chosen. The focus is on developing both communication skills, through oral and written presentations, and organizational skills as each team must organize one public panel discussion on one of the selected issues. The course takes place over the Fall and Winter Terms.
NOTE: Students who have received credit for SCPA 401 may not take this course for credit.

## SCPA 321 Public Affairs Strategies

 (3 credits)Prerequisite: Successful completion of Stage I or permission of the School. This course examines and analyses the ways in which corporate, public, and community organizations anticipate, monitor, and manage their relations with the social, political, and environmental forces which shape their operations and influence their action in their respective field. It familiarizes students with the strategies most often used in public affairs management, and develops the skills required for effective results.

## SCPA 333 (also listed as SOCI 333) Political Sociology (3 credits) <br> Prerequisite: Successful completion of Stage I.

This course is concerned with the nature, organization, distribution, determinants, and consequences of power in social systems. NOTE: Students required to take this course under Sociology as part of a Major or Specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA adviser.

## SCPA 353 (also listed as ANTH 353; SOCI 353) <br> Community Studies (3 credits)

Prerequisite: Successful completion of Stage I. This course involves the study of communities both as locales and as symbolic constructions. The major theoretical approaches used in community studies are evaluated in relation to research and applied interests. Special attention is given to sensitizing students to issues concerning gender, race, ethnicity, and class at the community level.
NOTE: Students required to take this course under Anthropology or Sociology as part of a Major or Specialization in either of these disciplines must replace the credits with a course chosen in consultation with the SCPA adviser.

## SCPA 355 (also listed as ANTH 355; SOCI 355) <br> Urban Regions (3 credits)

Prerequisite: Successful completion of Stage I. This course reviews the work of anthropologists and sociologists in cities. The focus is on the social organization of social life in First and Third World urban spaces. Consideration is also given to the particular dynamics of fieldwork in urban settings.
NOTE: Students required to take this course under Anthropology or Sociology as part of a Major or Specialization in either of these disciplines must replace the credits with a course chosen in consultation with the SCPA adviser.

## SCPA 398 Special Area Study in Community and Public Affairs

 (3 credits)Prerequisite: Successful completion of Stage I. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## SCPA 411 Internship (3 credits)

Prerequisite: Successful completion of Stages I and II. An essential part of the School's program is a one-semester apprenticeship in some aspect of community and public affairs. After completing 60 credits of the BA program, including Stages I and II, students are required to complete a practicum that will allow them to test their skills in a real situation. Placements may be drawn from all areas of possible employment, including the private sector, government and community service organizations. Students are expected to
participate fully in finding and defining possible internships. Employers are asked to join in an evaluation of the work period. Students are required to submit a written report which summarizes and evaluates their work experience.

## SCPA 412 Senior Research Seminar (3 credits)

Prerequisite: Successful completion of Stages I and II. In this course, students work in groups and are required to play out the position of a given corporate, public, or community organization in a simulation of real-life interaction between social and political actors over a particular policy issue. To this end, they must research and prepare all the necessary material (such as briefs, position papers, press kits) that will allow them to defend and make their policy position known. The actual simulation takes place in a one-day event at the end of the term.

## SCPA 460 (also listed as COMS 460) Political Communication (3 credits)

Prerequisite: Successful completion of Stages I and II. The relationships between media institutions and political institutions, both in Canada and internationally, are examined. Issues such as: the flow of political information; the social and political construction of news; the politics of regulation; the politics of influence in campaigns, nation-building socialization through media; ideology in the media, and alternatives to traditional media are explored.
NOTE: Students required to take this course under Communication Studies as part of a Major or Specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA adviser.

SCPA 461 (also listed as COMS 361) Seminar in Propaganda (3 credits)
Prerequisite: Successful completion of Stages I and II. The aim of this course is to recognize the orchestration of the elements of propaganda in media, and to develop the means to deal with it. Course methodology includes lectures, discussions, and projects.
NOTE: Students required to take this course under Communication Studies as part of a Major or Specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA adviser.

## SCPA 465 (also listed as COMS 465) Rhetoric and Communication (3 credits)

Prerequisite: Successful completion of Stages I and II. This course focuses upon communication as persuasive or as producing identification Emphasis is placed upon the role of communication in civic affairs. Classical and contemporary approaches to rhetorical theory and criticism are examined.
NOTE: Students required to take this course under Communication Studies as part of a Major or Specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA adviser.

## SCPA 498 Special Topics in Community, Public Affairs and Policy Studies (3 credits) <br> Prerequisite: Successful completion of Stages I and II. This course provides focused, in-depth examination and analysis of a particular policy topic, public affairs issue, or problem of community development. The subject of inquiry changes every year.

### 31.550

## sCIENCE COLLEGE

Principal<br>MICHAEL von GRUNAU, Professor, Psychology<br>Fellows<br>JOHN A. CAPOBIANCO, Professor, Chemistry<br>and Biochemistry; Vice-Dean, Academic<br>JAMES GRANT, Associate Professor, Biology DAVID JACK, Assistant Professor, Chemistry and Biochemistry<br>PAUL JOYCE, Associate Professor, Chemistry and Biochemistry<br>CALVIN S. KALMAN, Professor, Physics<br>HERSHY KISILEVSKY, Professor and Chair, Mathematics and Statistics<br>EDWARD J. MALY, Professor, Biology<br>JOHN McKAY, Professor, Computer Science<br>DAVID MUMBY, Associate Professor,<br>Psychology<br>ELAINE B. NEWMAN, Professor, Biology<br>(Founding Principal)<br>JUDITH PATTERSON, Associate Professor, Geology

GILLES H. PESLHERBE, Associate Professor, Chemistry and Biochemistry NATALIE PHILLIPS, Associate Professor, Psychology<br>DIANE POULIN-DUBOIS, Professor and<br>Associate Director, CRDH Psychology<br>RAMESH C. SHARMA, Associate Professor, Physics<br>PETER SHIZGAL, Professor, Psychology<br>REGINALD STORMS, Professor, Biology<br>MANFRED SZABO, Professor, Mathematics and Statistics<br>LUC VARIN, Associate Professor, Biology<br>Adjunct Fellows<br>MICHEL COTÉ, Physics, University of Montréal<br>MAJID FOTUHI, Chief Resident, Medicine, Johns Hopkins Hospital<br>LUCIEN-ALAIN GIRALDEAU, Biology, UQAM<br>MICHAEL GREENWOOD, Medicine, McGill<br>University

| Location | Loyola Campus <br> Science Complex <br> $(514)$ |
| :--- | :--- |
|  |  |

The aim of the Science College is to prepare students enrolled in one of Concordia's science programs for a life of research, teaching, or some similarly demanding intellectual pursuit in a profession. The academic program of the College complements the regular undergraduate curriculum and includes cross-disciplinary courses and student participation in laboratory research activities from the first year on. The collegial atmosphere fosters interaction among students and between students and faculty.

In Science College, students will gain an understanding of several areas of science, while specializing in whichever one they choose. Curricular structures frequently restrict students to a single discipline. To help counteract excessive specialization, the Science College has designed a series of courses to show what practising physicists think about physics; what mathematicians do when they are thinking mathematics: - not "an introduction to", but "the state of the art".
The College provides an opportunity for students to become acquainted with science as practised and understood by scientists today. Its curriculum is planned to fulfil the primary goals of the College - to provide an opportunity for experience in a research environment, for thinking about the nature of science, and for becoming aware of the style and content of the various scientific disciplines. In Science College, students have the opportunity to work individually with active research scientists. This is done through a program of directed or independent study in each undergraduate year which enables them to undertake or participate in projects of discovery in a variety of different areas of scientific endeavour.
Students of the College will also be provided with an opportunity to consider the nature of science. The College offers courses in the intellectual and social context of science. Designed specifically for College students, these courses raise questions of broad interest to scientists and presume an understanding of the subject matter of science itself.
Students will also be given the opportunity to consider the social and cultural framework of their science studies through a basic course in some aspect of humanistic studies. Finally, students will be encouraged to appreciate the link between clarity of thought and clarity of expression, through the availability of tutorial assistance in the development of writing skills.

## Facilities

The College has study and lounge areas, computer facilities, a small library, and a few periodicals of general interest. The College offers students the opportunity and facilities to discuss matters of interest among themselves and with their professors. Science College also offers a number of courses and invites scientists to visit the University to meet College students.

## Requirements for Admission to Science College

The program of Science College is academically demanding, involving concentration in one discipline and a critical investigation of other aspects of science. The College is committed to serious academic work and high standards, and seeks to attract talented and enthusiastic students who are willing to work hard in a search for a deeper understanding of their subject.
Students must enrol in a science program that leads to a BSc or BA (cognitive science) degree in order to be part of Science College. Students registered for a BA in Journalism are also eligible, as are students registered in the General Science Option of Computer Science.
In addition to the normal requirements for admission to the University's various programs, applicants are expected to have a good academic average. They will be considered on the basis of their academic record, and a personal interview. Preference will be given to students who show a disposition and an aptitude to profit from the unique features of the sort of fundamental scientific education which the College offers. Applicants are encouraged to provide evidence of the range of their intellectual interests and of any creative activity in which they may have been involved.
Students must be prepared to attend courses at times outside the normal University schedule. The College is open to full-time students only.

## Science College and Journalism

A limited number of students who have been admitted to the Major in Journalism program may be allowed to register in the Science College, with a view to combining a basic understanding of science with a training in journalism.

## Performance Requirement

Students in the College must obtain a minimum grade of "B-" in all courses offered by the College.

## Further Information

Further information on the courses and activities of the Science College may be obtained either by writing or by telephoning the College office. Personal interviews with a fellow of the Science College may be arranged through the Science College office.

## Science College Curriculum

The College offers a Minor in Multidisciplinary Studies in Science, consisting of a core of courses which is required of all students. This core consists of 30 of the 90 credits normally required for a BSc degree. These courses have been developed specifically for the College with the intention of providing a unique, integrated program of education in science.

In addition to completing the core curriculum, students are responsible for satisfying their particular degree requirements by completing a departmental Honours, Specialization, or Major program leading to a BSc or BA (cognitive science).
The superscript indicates credit value.

| 30 | Minor in Multidisciplinary Studies | 6 SCOL 490 ${ }^{6 *}$ |  |
| :---: | :---: | :---: | :---: |
|  | in Science | 12 | $\begin{aligned} & \text { Chosen from SCOL } 350^{3 * * * * ; ~} \\ & \text { SCOL } 360^{3 * * *} ; \text { LBCL } 291^{6 * *}, 292^{6 * *} \end{aligned}$ |
| 6 | SCOL $270^{6}$ |  |  |
| 6 | SCOL $290{ }^{3}, 390^{3}$ |  |  |
| *After consultation with the College, this course may be replaced by BIOL 490, CHEM 450, |  |  |  |
| PSYC 430, or taken in addition to one of these courses. |  |  |  |
| **Only one of these courses may be taken. |  |  |  |
| ${ }^{* * *}$ This course may be repeated twice for credit in this program, provided the subject matter is |  |  |  |
| different each time. In special circumstances and with permission of the College, a repeat of this |  |  |  |
|  | may be replaced by a science course |  |  |

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

SCOL $270 \quad$| Historical, Philosophical, and |
| :--- |
| Social Aspects of Science |
| $(6$ credits) |

Prerequisite: Membership in the Science College,
or permission of the College. This course discusses the intellectual framework of science and the relationships between science and society, and the political and philosophical questions
inherent in the scientific process. Students are expected to understand the scientific issues at the level at which they were originally addressed.

SCOL 290 Directed and Independent Study I (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. The student works under the supervision of a member of the Faculty on either a practical laboratory project or a literature study. A formal, written report is required.

## SCOL 350 Current Issues in Physical, Biological and Mathematical Sciences (3 credits)

Prerequisite: Membership in the Science College, or permission of the College. This course is designed to help students understand the "state of the art" in fields of science in which they are not specializing. It discusses problems under current study, and attempts to identify possible future directions of research. The approach is qualitative. Detailed technical knowledge is not prerequisite.
Specific topics for this course will be stated in the Undergraduate Class Schedule.
NOTE: This course may be repeated twice for credit in this program, provided the subject matter is different each time. In special circumstances and with permission of the College, a repeat of this course may be replaced by a science course at the 300 level or higher outside the student's program.
NOTE: Students who have received credit for SCOL 351, 352, or 353 may not take this course for credit if the subject matter is the same.

SCOL 360 Topics for Multidisciplinary Study (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. The purpose of this course is to introduce students to problems and areas of study which transcend traditional disciplinary barriers. A chosen area of investigation is treated from the viewpoint of various disciplines. Lectures from different areas may be used for this purpose. The aim is to show the contributions made by each field to the understanding of the problem, and how they complement each other.
Specific topics for this course will be stated in the Undergraduate Class Schedule.
NOTE: This course may be repeated twice for credit in this program, provided the subject matter
is different each time. In special circumstances and with permission of the College, a repeat of this course may be replaced by a science course at the 300 level or higher outside the student's program.
NOTE: Students who have received credit for this topic under a SCOL 398 number may not take this course for credit.

## SCOL 390 Directed and Independent Study II (3 credits)

Prerequisite: Membership in the Science College, or permission of the College. A student who has completed SCOL 290 registers for SCOL 390. Students are encouraged to work in a field different from that of their SCOL 290 project.

## SCOL 398 Selected Readings in Multidisciplinary Study (3 credits)

Prerequisite: Membership in the Science College, or permission of the College. The purpose of this course is to introduce students to problems and areas of study which transcend traditional disciplinary barriers. A chosen area of investigation is treated from the viewpoint of various disciplines. Readings from different areas may be used for this purpose under guidance of one or more fellows of the College. The aim is to show the contributions made by each field to the understanding of the problem, and how they complement each other.

## SCOL 490 Directed and Independent Study III (6 credits)

Prerequisite: Membership in the Science College, or permission of the College. A student who has completed SCOL 390 registers for SCOL 490.
Students are encouraged to work in a field different from that of their SCOL 290 and 390 projects. Students complete a research project approved in advance by the College, under the supervision of a fellow of the College and/or a faculty member in a scientific discipline at Concordia or elsewhere.
NOTE: After consultation with the Science College, students may register in BIOL 490, CHEM 450, or PSYC 430 and upon successful completion be exempted from SCOL 490. Students may also choose to do the Honours project and in addition a SCOL 490 project.

# 31.560 

Principal<br>LILLIAN S. ROBINSON<br>Associate Professor<br>CHANTAL MAILLE<br>Fellows<br>ROSEMARIE SCHADE<br>SANDRA WEBER<br>Research Associates<br>ANNA ALEXANDER-ANTONOPOULOS<br>SIMA APRAHAMIAN<br>MICHIKO ARAMAKI<br>ROKSANA BAHRAMITASH<br>KARIN DOERR<br>SHEENA GOURLEY<br>DANA HEARNE

MONIQUE LANOIX<br>NILIMA MANDAL-GIRI<br>BARBARA MEADOWCROFT<br>KATHLEEN O'GRADY<br>ESTHER ROTBAUM<br>Adjunct Fellows<br>DOINA LECCA<br>MARGARET SHAW<br>Retired/Honorary Fellows<br>ARPI HAMALIAN<br>ELIZABETH HENRIK<br>E. SUSAN HOECKER-DRYSDALE<br>PATRICIA MORLEY<br>JO VELLACOTT<br>MAÏR E. VERTHUY<br>KATHERINE E. WATERS

| Location | Sir George Williams Campus <br> Annex MU, Room: 202 <br> $(514) 848-2370$ |
| :--- | :--- |

Objectives
The Institute strives to stimulate the investigation and understanding of the role of women in society and to encourage women to develop their creative potential. In research and teaching, special attention is given to gender, race, class, and sexual orientation.
The Institute has several objectives: to investigate the history, current situation, and changing needs of women; to generate support for research topics relevant to women; to encourage full recognition of women's contribution to human achievement; to ensure that women and gender issues are studied in a non-discriminatory manner; to strengthen women's rights and the conditions for exercising them; to ensure the equality of all individuals without distinction of race, sex, age, language, or religion. Women's Studies encompass and modify all areas of knowledge. Through the introduction of new perspectives and new research, this field of study helps to correct and complete the traditional scholarly record. It is in essence interdisciplinary and multidisciplinary since the specificity of the condition of women embraces all existing disciplines. It thus questions the concept and structures of knowledge contained within the disciplinary boundaries and contributes to bringing about a reunification of the knowledge and scholarship that has become increasingly fragmented.

## SIMONE DE BEAUVOIR INSTITUTE

Founded in 1978 to promote the understanding of the historical and contemporary situation of women in society, the Simone de Beauvoir Institute of Concordia University helps women to discover and develop their potential, both by its academic base in Women's Studies and by its co-curricular activities. We are honoured that Simone de Beauvoir authorized us to use her name, and expressed great interest in being informed of our activities.
All students registered in the Specialization, Major, Minor, or Certificate in Women's Studies are members of the Institute. Other undergraduate students are welcome to become members if they undertake to complete nine credits of WSDB courses. The choice of these courses must be approved in advance by the principal or her delegate.
The co-curricular life of the Institute is extremely important, and all members are expected to contribute to our activities. Exciting opportunities are available to organize workshops, colloquia, and debates on subjects that interest the members, as well as to collaborate with women's organizations outside the University on research projects and other joint ventures.

Admission Requirements for the Simone de Beauvoir Institute
Students may apply simultaneously to Concordia University and the Simone de Beauvoir Institute by filling out and submitting the Concordia University Application for Admission with the box for "colleges"
checked and "Simone de Beauvoir Institute" written in the space provided. The Admissions Application Centre will inform us of your application as soon as they receive it. Further information about the Institute can be obtained by calling us or by visiting our offices.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
Students should consult with the Women's Studies adviser prior to registering for Women's Studies courses.

## 60 BA Specialization in Women's Studies

 Group I9 WSDB $290^{3}, 291^{3}, 292^{3}$
6 WSDB $380^{3}, 480^{3}$
12 WSDB $381^{3}, 382^{3}, 383^{3}, 390^{3}, 391^{3}, 392^{3}$
12 WSDB $490^{3}, 491^{3}, 496^{6}$
3 WSDB at the 400 level Group II
18 Chosen in consultation with the Women's Studies adviser from WSDB $298^{3}, 398^{3}$, 498 ${ }^{3}$; AHSC $253^{3}$; CLAS $261^{3}$; COMS $368^{3}$; EDUC $321^{3}$; ENGL $303^{6}$, $331^{3}, 351^{3}$; FLIT $362^{3}, 471^{3}, 472^{3}, 474^{3}$; HIST $329^{3}, 331^{3}, 478^{3}$; POLI $309^{3}, 326^{3}$, $328^{3}$; PSYC $368^{3}, 391^{3}$; and all Women and Religion courses; SOCI $272^{6}, 276^{6}$, $374^{3}$; ANTH $308^{3}$; and from the Faculty of Fine Arts: FMST $329^{3}, 409^{3}$; WFAR $320^{6}$, $420^{6}$
NOTE: Students are admitted based on a letter of intent to be evaluated by the Women's Studies Undergraduate Committee. Students are expected to maintain an overall WGPA of 3.0 .

## 42 BA Major in Women's Studies Group I

9 WSDB $290^{3}, 291^{3}, 292^{3}$
6 WSDB $380^{3}, 480^{3}$
6 Chosen from WSDB $390^{3}, 391^{3}, 392^{3}$
3 Chosen from WSDB 4903, 491 ${ }^{3}$ Group II
18 Chosen in consultation with the Women's Studies adviser from List A

## LIST A

WSDB $298^{3}, 381^{3}, 382^{3}, 383^{3}, 398^{3}, 498^{3}$; AHSC 253 ${ }^{3}$; CLAS 261 ${ }^{3}$; COMS $368^{3}$; EDUC $321^{3}$;
ENGL $303^{6}, 331^{3}, 351^{3}$; FLIT $362^{3}$, $471^{3}, 472^{3}, 474^{3}$; HIST $329^{3}, 331^{3}, 478^{3}$; POLI $309^{3}, 326^{3}, 328^{3}$;
PSYC $368^{3}, 391^{3}$; RELI all courses under Women and Religion; SOCI $276^{6}, 378^{6}, 474^{3}$; ANTH $276^{6}$;
SPAN $430^{3}$; FMST $329^{3}, 409^{3}$; WFAR $320^{6}, 420^{6}$
NOTE: Students should consult the appropriate Departments concerning possible prerequisites for the courses in List A.

NOTE: WSDB 290 and 291 are also offered in French. For additional information, please consult the Undergraduate Class Schedule.

## Language/Langue

Les règlements actuels permettent à toute étudiante et tout étudiant d'écrire ses devoirs ou examens en anglais ou en français dans tous les cours offerts, à l'exception des cours de langue. La langue d'enseignement sera normalement l'anglais.
Non-francophone students may equally submit assignments in English in Français 451, 476, and 477, as long as they are taking the course for credit in Women's Studies or as an elective, and not as part of a program of the Département d'études françaises. equivalent courses.

## N.B.:

(1) 300-level courses are generally open only to students who have successfully completed at least 15 credits which include WSDB 290 and 291. Students who do not have these prerequisites may also register with permission of the Department.
(2) 400 -level courses are generally open only to students who have successfully completed at least 30 credits which include WSDB 290, 291, and 380. Students who do not have these prerequisites may also register with permission of the Department.

## WSDB 290 Introduction to Women's Studies I (3 credits)

This course provides an introduction to the lives and conditions of women in historical contexts. It is suited both to those interested in women's issues in general and students enrolled in Women's Studies. Topics range from lesbianism, motherhood, violence, racism, and family to women's economic status, and women's resistance.

## WSDB 291 Introduction to Women's Studies II (3 credits)

This course looks at the lives and conditions of women in recent times; it explores systems of domination and women's resistance to them. It investigates how women have empowered themselves within these systems and have struggled for, and achieved, change. Topics may include women's organizations, socialization, education, language, economic and political structures. NOTE: Students who have received credit for WSDZ 291 may not take this course for credit.

## WSDB 292 Feminisms and Research <br> Methods (3 credits)

Prerequisite: Enrolment in a Women's Studies program or permission of the Institute. This course exposes students to a variety of research practices such as: oral history, case studies, multi-media representation, survey/ content analysis, library research, and field work. It encourages students to think critically, and to improve their ability to gather, analyse, and effectively present ideas and information.

## WSDB 298 Selected Topics in Women's Studies (3 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## WSDB 370 Workshops in Special Areas of

 Women's Studies (3 credits) Prerequisite: WSDB 290; WSDB 291. The purpose of these workshops is to examine a number of topics and problems related to the field of Women's Studies. The issues considered may differ from year to year; several workshops are offered over one academic year and students are required to select two workshops of one and a half credits each or three workshops of one credit each from the package. The workshop format is designed to allow Women's Studies students to participate in learning opportunitieswith flexibility in scheduling as well as to benefit from the experience of experts who visit Montréal on a short term basis. Possible topics are women and biotechnology; education of immigrant women, women and continuing education; women and pressure groups.

WSDB 380 Feminist Thought I (3 credits) Prerequisite: See N.B. number (1). This course seeks to deconstruct the ideological premises of knowledge-production and provides an overview of various modes of knowledge, theory, and activism among women in different cultural contexts. These types of knowledge range from storytelling to academic theorizing. The course provides key concepts and critical approaches for Feminist Thought II.
NOTE: Students who have received credit for WSDB 394 may not take this course for credit.

## WSDB 381 First Nations' Women

 (3 credits)Prerequisite: 18 credits, including WSDB 290, 291, and 292, and nine credits from other WSDB or elective courses. This course aims to acquaint students with North American First Nations, particularly the women's contemporary realities. Other pedagogical objectives are to facilitate an understanding of cultural perception; to develop a critical viewpoint of ethnocentrism in mainstream society; to introduce the current debate around minority representation, cultural appropriation, and post-colonial theory.
NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

## WSDB 382 Science, Technology and

 Women's Lives (3 credits)Prerequisite: See N.B. number (1). This course explores both historical trends and contemporary concerns regarding women, science, and technology. It investigates: stereotypes of science and scientists; western science vs. native knowledge; science as a social activity and as a career choice for women; and the effects of science and technology on women's lives. NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 383 Lesbian Issues and Realities (3 credits)
Prerequisite: 18 credits, including WSDB 290, 291, 292, and nine credits from other WSDB or
elective courses. This course introduces students to the field of lesbian studies and examines lesbian existence within a historical as well as a contemporary context. A central theme of the course is diversity among lesbians, not only in terms of race, class, ability but also in terms of political consciousness.
NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 390 Women and Peace ( 3 credits) Prerequisite: See N.B. number (1). This course covers a series of themes related to feminist peace politics such as violence, wars against women, militarism, roles played by women during wars, war mythologies, women in the military, the war industry and the new world order, feminist peace activism.

## WSDB 391 Health Issues: Feminist Perspectives (3 credits)

Prerequisite: See N.B. number (1). This course examines women's health issues in both a historical and a contemporary light. Topics analysed range from the treatment of women within the health care system to the social constructs of illness and the diversity of healing practices.

## WSDB 392 Féminismes dans la francophonie (3 crédits)

Préalable: 18 crédits, dont WSDB 290, 291, et 292, plus 9 autres crédits en WSDB ou cours électifs. A partir de textes théoriques et d'ouvrages traitant de la vie quotidienne, ce cours examine les similitudes, les analogies et les traits distinctifs des luttes des femmes durant les deux dernières décennies, ici et ailleurs dans la francophonie, notamment les luttes des Arabes, des Antillaises ou des femmes d'Afrique noire.

## WSDB 398 Selected Topics in Women's Studies (3 credits)

WSDB 399 Selected Topics in Women's Studies (6 credits)

WSDB 480 Feminist Thought II (3 credits)
Prerequisite: See N.B. number (2). This course uses the critical approaches studied in Feminist Thought I to explore the changes that have taken place in women's expression and interpretation of modes of knowledge and theory. The course focuses on the relationship between oppressive systems and the ways different women's groups have resisted them.
NOTE: Students who have received credit for WSDB 394 may not take this course for credit.

WSDB 490 Feminist Ethics (3 credits) Prerequisite: See N.B. number (2). This interdisciplinary seminar considers the effect of systems of gender, race, and class on women's place in society. It takes into account recent developments in feminist scholarship in the humanities and social sciences.

## WSDB 491 Feminist Perspectives on Culture (3 credits)

Prerequisite: See N.B. number (2). This interdisciplinary seminar explores women's visions of the future and draws on historical and contemporary materials, both creative and scientific.

WSDB 496 Directed Research ( 6 credits) Prerequisite: Enrolment in the Specialization in Women's Studies; 30 credits, including WSDB 290, 291, 292, 380, 480, and permission of instructor. Students work with an individual faculty member in a particular area of Women's Studies. Students are expected to produce a substantial research project.

WSDB $498 \quad$| Seminar in Women's Studies |
| :--- |
| (3 credits) |

WSDB $499 \quad$| Seminar in Women's Studies |
| :--- |
| ( 6 credits) |

| Specific topics for these courses, and |
| :--- |
| prerequisites relevant in each case, will be |
| stated in the Undergraduate Class Schedule. |

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## JOHN MOLSON SCHOOL OF BUSINESS

| 61.10 | JOHN MOLSON SCHOOL OF BUSINESS |
| :--- | :--- |
| 61.20 | ADMISSION REQUIREMENTS |
|  |  |
| 61.21 | UNDERGRADUATE DEGREE PROGRAMS <br> 61.21.1 |
|  | General Education Requirement <br> 61.21 .2$\quad$ The Bachelor of/Baccalaureate in Commerce |
|  | The Bachelor of/Baccalaureate in Administration |

# 61.10 .anam SCHOOL OF BUSINESS 

| Faculty | Dean <br> JERRY TOMBERLIN |
| :--- | :--- |
| Associate Deans <br> GEORGE K. KANAAN, Academic and Student <br> Affairs - Undergraduate Programs | A. BAKR IBRAHIM, Administrative Affairs and <br> Human Resources <br> MICHEL MAGNAN, External Affairs and |
| Executive Programs |  |
| DANIELLE MORIN, Graduate Programs, |  |
| Research and Program Evaluation |  |

### 61.20 ADMISSION REQUIREMENTS

General admission requirements are listed in §13.
A) Cégep profile*:

Mathematics 201-103, 201-105
Economics 383-920, 383-921
Computer Literacy
B) Non-cégep profile*:

Non-cégep requirements Concordia Courses
Calculus I
MATH 209
Linear Algebra
MATH 208
Micro, Macro Economics ECON 201, 203
Computer Literacy
INTE 290/COMP 201
*NOTE: Equivalencies will be determined at the point of acceptance.
NOTE: Arrangements will be made in the first-year program to allow any accepted student the opportunity to complete any of the required prerequisite courses.

Cégep Entrance - the 90-credit program
The prerequisites for the 90 -credit BComm or BAdmin degree are indicated in A) above. Students with a DEC will complete the 90 -credit program. Students who have a complete DEC but are lacking one or more of the prerequisite courses may take them within the 90 -credit program as elective credits.

## Mature Entry — the 108-credit program

In addition to the 90 -credit program, mature entry students will be required to complete the following 18 credits outside the offerings of the John Molson School of Business. Those credits are:

6 credits in MATH 208, 209
6 credits in ECON 201, 203

3 credits in INTE 290/COMP 201
3 additional elective* credits.
*These elective credits must be selected from outside the offerings of the John Molson School of Business.

## Four-Year Program — the 120-credit program

In addition to the 90 -credit program, students in the four-year program will be required to complete the following 30 credits outside the offerings of the John Molson School of Business. Those credits are:

6 credits in MATH 208, 209
6 credits in ECON 201, 203
3 credits INTE 290/COMP 201
6 credits in an English composition course (e.g. ENGL 212, 213)
9 additional elective* credits.
*These elective credits must be selected from outside the offerings of the John Molson School of Business.
NOTE: Because of the extensive use of computers in various programs, students are advised to have access to a personal computer.

### 61.21 Undergraduate Degree Programs

The John Molson School of Business offers two distinct undergraduate programs. The Bachelor of/Baccalaureate in Commerce (BComm) is a structured program in which the student will select a Major from those offered by the School of Business. The Bachelor of/Baccalaureate in Administration (BAdmin) is a flexible program which permits the student to pursue interests outside the School of Business, and offers the possibility of complementing a fundamental grounding in Administration with Minor concentrations in an area of interest. Degree requirements listed below apply to all students entering the program on or after June 1, 2001.
61.21 .1

General Education
Requirement
61.21 .2

The Bachelor of/
Baccalaureate in Commerce
61.21 .3

The Bachelor of/ Baccalaureate in Administration

The John Molson School of Business is committed to the concept of General Education. Students graduating from the Business programs will have acquired the benefits of a general education through the 12 elective non-Business credits they are required to complete.

This program involves education in all aspects of business with emphasis on one particular area. The first year introduces students to operational skills, attitudes, and the necessary functional tools. The second year blends theory and practice to prepare students to analyse, formulate, evaluate, and resolve business challenges. The final year is a combination of the core, electives, and the student's Major.
As part of the Bachelor of/Baccalaureate in Commerce program, students will select 12 credits of elective courses outside the offerings of the School. Those credits, which will meet the School's General Education Requirement, should be chosen in areas that complement the student's overall university education.

| Degree | Requirements: |
| ---: | :--- |
| 42 | credits from the core |
| 12 | elective credits outside the School of Business |
| $24-27$ | credits to apply towards the Major |
| $9-12$ | elective credits chosen by the student |

## NOTES:

1. All students are required to declare a Major.
2. There are no Double Majors or Double Minors in the John Molson School of Business. The School may impose quotas on some Majors.

The aim of the BAdmin is to develop capable problem-solvers and decision-makers. The program provides students with a fundamental grounding in administration and offers them the opportunity to pursue a wide range of interest amongst the various courses offered by the University.

## Degree Requirements:

42 credits from the core
18 credits from within the School of Business and/or its disciplines
30 elective credits chosen by the student, but outside the School of Business, 15 of these must be beyond the introductory level.

NOTE: For both the BComm and the BAdmin, students may take up to a maximum of six credits in ESL courses.

### 61.22 The Credit Core

The John Molson School of Business has revised its core effective September 2001. Students accepted into the John Molson School of Business prior to these changes must adhere to the Undergraduate Calendar of the year of their acceptance into the program. Students who wish to discuss any adjustments to their program based on the new changes, may consult the academic adviser.

NOTE: Students are responsible for following the correct sequence of courses required for the completion of a particular program.
The required 42 -credit core is identical for both programs and comprises the following courses:
1st Year
Semester 1
COMM 210 Contemporary Business Thinking
COMM 212 Business Communication
COMM 215 Business Statistics
COMM 217 Financial Accounting
Semester 2
COMM 220 Analysis of Markets
COMM 222 Organizational Behaviour and Theory
COMM 224 Marketing Management
COMM 225 Production and Operations
$\quad$ Management

JOHN MOLSON SCHOOL OF BUSINESS

| Program | Major | Minor | Cerrificate |
| :---: | :---: | :---: | :---: |
| Accountancy | X |  |  |
| Business Studies |  | $\chi^{1}$ | $\chi^{1}$ |
| Economics | X | X |  |
| Electronic Business Systems |  | X |  |
| Entrepreneurship and Small Business Management |  | X |  |
| Finance | X | X |  |
| Financial Accountancy |  | X |  |
| Human Resource Management | X | X |  |
| International Business | X | X |  |
| Management | X | X |  |
| Management Information Systems | X | X |  |
| Managerial Accountancy |  | X |  |
| Marketing | X | X |  |
| Operations Management | X | X |  |

Students will indicate their preferred field of concentration at the time of application for entry. It should be noted that students may change their Major and/or Minor after completion of their first year of study.
${ }^{1}$ This program is not open to students registered in a program leading to the undergraduate degree of Commerce or Administration.
Students may transfer into the Certificate program up to 12 credits earned in an incomplete degree or Certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

NOTE: The GPA regulations apply to all students, including those with Visiting status, registered in
61.22 .1

Academic Performance Regulations

2nd Year
Semester 1
COMM 301 Management Information Systems
COMM 305 Managerial Accounting
COMM 308 Introduction to Finance
Semester 2
COMM 315 Business Law and Ethics
COMM 320 Entrepreneurship

## 3rd Year

COMM 401 Strategy and Competition programs offered by the John Molson School of Business. This also includes the Minor in Business Studies and Certificate programs.

The objectives of these regulations are:
a) to ensure that the School of Business can certify that all of its graduates are qualified to enter their profession;
b) to ensure that students can, with the assistance or intervention of the School of Business, assess themselves objectively, and plan programs of study designed to meet their individual needs.

## Annual Weighted Grade Point Average (WGPA)*

## Requirements and Consequences

*See §16.3.10, II for definition of Annual WGPA.
Acceptable standing requires that a student obtain an Annual WGPA of at least 2.00 .
NOTE: Although a "C-" grade (1.70 grade points) is designated as Satisfactory in §16.3.3, a WGPA
of 2.00 is required for acceptable standing.
Students in acceptable standing must repeat any course that is required for their program.
Conditional standing results when a student obtains an Annual WGPA between 1.50 and 2.00. A student is not permitted to obtain two consecutive conditional standing assessments. Students in conditional standing may not write supplemental examinations but may proceed subject to the following conditions:
a) they must receive academic counselling from the appropriate member of the Dean's Office;
b) they must repeat successfully all courses in which failing grades were obtained, or replace them by alternatives approved by the Dean's Office;
c) in no case will the number of credits exceed 15 per term for full-time students and six per term for part-time students;
d) they must obtain acceptable standing at the time of their next assessment.

Failed standing results when a student obtains an Annual WGPA of less than 1.50, or conditional standing in two consecutive periods of assessment.
Failed students may not write supplemental examinations.
Failed students are dismissed from their program for a minimum period of one year.
Students who are in failed standing for a second time are dismissed from the University for a longer period of time. In subsequent years, should they wish to return to university studies, they must contact the Office of the Registrar for information concerning conditions and procedures for seeking readmission. Decisions of the relevant authority in the Faculty to which application is made are final.
Failed students who are dismissed may apply for readmission through the Dean's Office of the Faculty to which they wish to be readmitted. If readmitted, they will be placed on academic probation and restricted to a maximum of six credits per semester. They must achieve acceptable standing at the time of their next assessment. Other conditions will be determined at the time of readmission.

## Graduation Requirements

Students must satisfy all course requirements and be in acceptable standing.
The standings of potential graduates who have attempted less than 12 credits since their last assessment are determined on the basis that these credits constitute an extension of the last assessment period.
Students who fail to meet acceptable standing but meet conditional standing will have the following options:
a) register for 12 credits and meet the criteria for acceptable standing;
b) register for fewer than 12 credits. In this case, standing will be determined on the basis that these credits constitute an extension of the last assessment period.

NOTE: Dean's Office is to be understood as being the appropriate member of the Dean's Office, normally the Associate Dean, Student Affairs, or delegate.

1. Students in the John Molson School of Business who have a lapse in their program of study for six consecutive terms or more will not be allowed to continue in their program before meeting with an academic adviser.
2. Except for students following the program in the co-operative format, the maximum load in the Summer Session is 12 credits, with no more than six credits in either of its terms.

### 61.30 GENERAL INFORMATION

## Failures/Prerequisites

Students are cautioned that a failure in a first-term course will prohibit them from proceeding to a second-term course for which the first is a prerequisite. Students who find themselves in this position must drop the second-term course and register in a section of the failed course, if available.
There will be a course-change period at the beginning of each term, at which time students falling in the above category must make arrangements for the necessary course changes.
*Students who are registered for a course in which they do not have the appropriate prerequisite must adjust their registration accordingly. The Office of the Associate Dean reserves the right to deregister those students who do not adhere to academic regulations.

NOTE: THERE ARE NO SUPPLEMENTAL EXAMINATIONS IN THE JOHN MOLSON SCHOOL OF BUSINESS.

Bilingualism
The business community, as well as governments, now express a preference for university graduates who are bilingual. We, therefore, advise all students to take advantage of the opportunities available during their years at this University to ensure that they are bilingual when they present themselves for employment upon graduation.

### 61.35 JOHN MOLSON SCHOOL OF BUSINESS COURSES

The following core courses provide a format in which topics of faculty-wide interest are considered:

Courses

## COMM 210 Contemporary Business Thinking (3 credits)

Prerequisite: COMM 212 previously or concurrently; ECON 201 or 203 or equivalent previously or concurrently. This course exposes students to an in-depth reading of several contemporary business books. It aims to incite students to develop a critical perspective on business literature. Students are also encouraged to explore popular and influential business writing; expose and evaluate the central ideas for scope, relevance, and managerial utility.
NOTE: It is recommended that part-time students complete this course, along with COMM 212, as early in their program as possible.

## COMM 212 Business Communication

 (3 credits)Prerequisite: INTE 290 or COMP 201 previously or concurrently. This course focuses on the principles and techniques of clear, concise, and effective, written and oral communication, especially as they apply to business. The formal, grammatical, and stylistic elements of written and oral business communication are emphasized. In addition, students are instructed in and experience the use of audiovisual means of communication. NOTE: It is recommended that part-time students complete this course, along with COMM 210, as early in their program as possible.
NOTE: Students who have received credit for BUSC 300 may not take this course for credit.

COMM 215 Business Statistics (3 credits) Prerequisite: INTE 290 or COMP 201 previously or concurrently; MATH 208 or equivalent, MATH 209 or equivalent. This course introduces the fundamentals of statistics as applied to the various areas of business and administration. Topics covered include techniques of descriptive statistics, basic theory of probability and probability distributions, estimation and hypotheses testing, chi-square tests in contingency table analysis and for goodness-of-it, and simple linear regression and correlation.
NOTE: Students who have received credit for DESC 243 may not take this course for credit.

## COMM 217 Financial Accounting

(3 credits)
Prerequisite: COMM 210 previously or concurrently. This course examines the theory and practice involved in measuring, reporting, and analysing an organisation's financial information. Concepts underlying financial statements are discussed, with an emphasis on generally
accepted accounting principles. Disclosures/ requirements concerning financial statements as well as information needs of decision-makers are introduced.
NOTE: Students who have received credit for ACCO 213 may not take this course for credit.

COMM $220 \quad$ Analysis of Markets (3 credits) Prerequisite: COMM 210 or MANA 266; COMM 215 or DESC 243; ECON 201 or equivalent; ECON 203 or equivalent previously or concurrently. This course provides a general perspective on the history, operation and interrelationships between Canadian and international product, labour and financial markets. Specifically, students will be introduced to issues of fundamental importance to today's managers and entrepreneurs such as changes in structure and competitiveness in these markets in response to government policies, the determination and behaviour of interest rates, inflation, market integration, and the role and function of financial intermediation. It further provides students with the knowledge of the role and impact of regulation and other government interventions in these markets.

## COMM 222 Organizational Behaviour and Theory (3 credits)

Prerequisite: COMM 210, 212. This course is designed to provide students with an opportunity to study individual behaviour in formal organizations. Through theoretical case and experiential approaches, the focus of instruction progressively moves through individual, group and organizational levels of analysis. Topics in the course include perception, learning, personality, motivation, leadership, group behaviour, and organizational goals and structure.
NOTE: Students who have received credit for MANA 340 may not take this course for credit.

## COMM 224 Marketing Management

(3 credits)
Prerequisite: COMM 210, COMM 212
previously or concurrently. This course is an introduction to the managerial concepts and practices of marketing from the perspective of an organization and its products and services. The process of developing a marketing strategy and all of the components thereof is examined along with their interrelationships. Readings and cases are used to help students apply these concepts to realistic marketing problems in a host of business settings, including small business and international environments. NOTE: Students who have received credit for

MARK 213 or 350 may not take this course for credit.

## COMM 225 Production and Operations Management (3 credits)

Prerequisite: COMM 210, 212; COMM 215
previously or concurrently. This course is an introduction to contemporary operational issues and techniques in the manufacturing and service sectors. Among the topics covered are: operations strategy, forecasting, materials' management, total quality management, time-based competition, and minimal manufacturing. Mathematical modelling in resource allocation is also introduced. Cases and computer-aided quantitative tools for decision-making are used throughout the course with an emphasis on the interactions between production/operations management and other business disciplines.
NOTE: Students who have received credit for DESC 250 may not take this course for credit.

## COMM 301 Management Information

 Systems (3 credits)Prerequisite: COMM 210, 212; COMM 217, 222
previously or concurrently. The objective of this course is to provide students with an understanding of the role of computer-based information systems in business organizations and the analytical skills required to work with management information systems. This course will also help to equip students with the ability to apply information technologies to a variety of business problems. NOTE: Students who have received credit for DESC 222 may not take this course for credit.

## COMM 305 Managerial Accounting (3 credits)

Prerequisite: COMM 217. This course covers the development of accounting information to assist management in carrying out its functions effectively and efficiently. Concepts and techniques for planning, performance evaluation, control, and decision-making are introduced. New developments are addressed with a focus on contemporary business issues and real-world applicability of management accounting concepts and techniques.
NOTE: Students who have received credit for ACCO 218 may not take this course for credit.

## COMM 308 Introduction to Finance

 (3 credits)Prerequisite: COMM 217, 220. This course provides a general understanding of the fundamental concepts of finance theory as they apply to the firm's long-run short-run financing and investment decisions. Building on the objective of firm value maximization, students will become familiar with the conceptual issues underlying risk and return relationships and their measurements, as well as the valuation of financial securities. They will also learn the concept of cost of capital, its measurement, and the techniques of capital budgeting as practised by today's managers. Students will be introduced to the basic issues surrounding the firm's short- and long-term funding decisions and its ability to pay dividends.

Management of the firm's accounts receivable and accounts payable, and the level of working capital are also presented.
NOTE: Students who have received credit for FINA 214 or 315 may not take this course for credit.

## COMM 315 Business Law and Ethics

 (3 credits)Prerequisite: COMM 308. This course will allow students to develop a degree of familiarity with the important ethical and legal aspects of business and to become more aware of and comfortable with resolving ethical and legal components of their decision-making and with distinguishing right from wrong business behaviour. NOTE: Students who have received credit for MANA 475 may not take this course for credit.

COMM 320 Entrepreneurship ( 3 credits)
Prerequisite: COMM 224, 305, 308. This course emphasizes the entrepreneurial aspects of management that are required to create, develop, and sustain either a new business venture or a major project/initiative within an existing organization. The integrative nature of the course will require an understanding of each functional area of business. Students will have the opportunity to demonstrate the teamwork, leadership, communication, and the other skills stressed throughout the program.
NOTE: Students who have received credit for COMM 410 may not take this course for credit.

## COMM 401 Strategy and Competition

 (3 credits)Prerequisite: 45 credits in Commerce and Administration; COMM 315 and 320 previously or concurrently. This capstone course requires graduating students to demonstrate their ability to integrate the knowledge and skills they have acquired during their Commerce program. This course introduces the concepts of strategic management and competitive analysis. Emphasis is given to integrating concepts and ideas from the major functional areas such as marketing and finance to give a global perspective on decision-making and directing modern business enterprises. Lecture topics and case studies are selected to portray the nature of the strategic process and the dynamics of competition in a variety of contexts. Attention is also given to the issues of social responsibility, ethics, and personal values. In this context, we also examine the connection between organizational strategy and the physical environment. Finally, cases and assignments which require an analysis of organizational improvement strategies and new organizational structures are selected.
NOTE: Students who have received credit for COMM 310 or MANA 460 may not take this course for credit.

COMM 499 Seminar Course (3 credits) Prerequisite: To be determined each academic term. This course will enable students, on an individual basis, to further focus on a specialized topic within their discipline.

### 61.40 <br> ACCOUNTANCY

| Assistant Professor and Chair of the | Assistant Professors |
| :--- | :--- |
| Department | EMILIO BOULIANNE |
| DOMINIC PELTIER-RIVEST | MAUREEN P. GOWING |
| Professor | MAJIDUL ISLAM |
| MICHEL MAGNAN | JOUNG KIM |
| Distinguished Professor Emeritus |  |
| LAWRENCE BESSNER | SAMEER MUWENFELD |
|  |  |
| Associate Professors | Lecturers |
| IBRAHIM M. ALY | PATRICK DELANEY |
| HENRY J. DAUDERIS | CARMEN DELLA CIVITA |
| CHARLES DRAIMIN | GAIL FAYERMAN |
| KELLY F. GHEYARA | TREVOR HAGYARD |
| GEORGE K. KANAAN | TARA RAMSARAN |
| MANMOHAN RAI KAPOOR | SANDRA M. ROBINSON |
| BURYUNG LEE | WENDY NADINE ROSCOE |
| JUAN J. SEGOVIA | PIERRE TAILLEFER |

Faculty
Departmen
DOMINIC PELTIER-RIVEST
Professor
MICHEL MAGNAN
Distinguished Professor Emeritus

Associate Professors
BRAHIM M. ALY
HENRY J. DAUDERIS
KHARLS DRAMA
KELY F GH KANA
MANMOHAN RAI KAPOOR
JUAN J. SEGOVIA

Assistant Professors<br>EMILIO BOULIANNE<br>MAJIDUL ISLAM<br>JOUNG KIM<br>GEORGE LOWENFELD<br>Lecturers<br>PATRICK DELANEY<br>CARMEN DELLA CIVITA<br>GAIL FAYERMAN<br>tha ramsaban<br>SANDRA M. ROBINSON<br>WENDY NADINE ROSCOE<br>DEREK VALENTE

| Location | Sir George Williams Campus Annex GM, Room: 600-13 (514) 848-2759 |
| :---: | :---: |
| Department Objectives | The Department of Accountancy is dedicated to providing leadership in accounting education through a strong commitment to excellence in teaching and leadership in the discovery and dissemination of accounting knowledge. It acts as a bridge between the University and business, government, and professional accounting as they relate to various facets of accountancy at the undergraduate and graduate levels. <br> The Department continuously strives to provide leadership and scholarship that are recognized provincially, nationally, and internationally by offering unique, creative, innovative, and "lifetimelearning" opportunities. The Department is responsive to its diverse constituencies and both nourishes and preserves an equitable, just, and non-discriminatory environment. |
| Programs | $\mathbf{2 7}$ Major in Accountancy $\mathbf{1 2}$ Minor in Financial Accountancy <br> 3 ACCO 310 3 ACCO 310 <br> 3 ACCO 320 3 ACCO 320 <br> 3 ACCO 330 6 additional credits offered by the <br> 3 ACCO 340  Department <br> 3 ACCO 400   <br> 12 additional credits offered by the $\mathbf{1 2}$ Minor in Managerial Accountancy <br>  Department 3 ACCO 330 <br>   6 ACCO 430 <br>    additional credits offered by the <br>   Department  |
| Accountancy <br> Co-operative <br> Program | Director <br> SANDRA M. ROBINSON, Lecturer <br> (514) 848-2748 <br> The Accountancy Co-operative program is offered to students who are enrolled in the BComm program and are majoring in Accountancy. Students interested in applying for the Accountancy co-op should refer to $\S 24$ where a full description of the admission requirements is provided. <br> Academic content is identical to that of the regular program, but six Study terms are interspersed with four Work terms. |

ACCO 220 Financial and Managerial Accounting (3 credits)
This course provides an introduction to accounting principles underlying the preparation of financial reports with an emphasis on the relationship between accounting information and production decisions. It examines the relationship between costs, production volume, and profit, as well as the practical benefits of standard costs for planning and control purposes. The role of accounting information in various manufacturing decisions is also highlighted.
NOTE: This course would be useful to Engineering students.
NOTE: Commerce and Administration students may not take this course for credit.
NOTE: Students who have received credit for ACCO 213, 218, 230, 240 may not take this course for credit.

## ACCO 230 Introduction to Financial Accounting (3 credits)

This course provides an introduction to accounting concepts underlying financial statements of organizations. It focuses on the analysis, measurement, and reporting of business transactions to users of financial statements. It also examines the uses and limitations of accounting information for investment and credit decisions.
NOTE: Commerce and Administration students may not take this course for credit.
NOTE: Students who receive a grade of "C" or better may be exempt from COMM 217.
NOTE: Students who have received credit for ACCO 213 or 220 may not take this course for credit.

## ACCO 240 Introduction to Managerial Accounting (3 credits)

Prerequisite: ACCO 213 or 230. This course examines the role of accounting information for decision making, and focuses on concepts and techniques used in planning operations, controlling activities, and evaluating managerial performance. New developments are addressed with a focus on contemporary business issues and real-world applicability of management accounting concepts and techniques.
NOTE: Commerce and Administration students may not take this course for credit.
NOTE: Students who receive a passing grade may be exempt from COMM 305.
NOTE: Students who have received credit for ACCO 218 or 220 may not take this course for credit.

## ACCO 310 Intermediate Accounting I

 (3 credits)Prerequisite: COMM 305 or ACCO 218 previously or concurrently. This course extends the material covered in the first financial accounting course, integrating the previous work with more advanced accounting theory and application. Intensive study is made of the theory and practice of external financial reporting by business entities, focusing on concepts and procedures
underlying the measurement of assets and the determination of income.
NOTE: Students who have received credit for ACCO 323 may not take this course for credit.

## ACCO 320 Intermediate Accounting II (3 credits)

Prerequisite: ACCO 310 or 323 . This course continues the intensive study of ACCO 310, with particular emphasis on accounting for liabilities, shareholders' equity, and other related topics such as earnings per share, pension accounting, and accounting for income taxes. NOTE: Students who have received credit for ACCO 326 may not take this course for credit.

## ACCO 330 Cost and Management Accounting (3 credits)

Prerequisite: ACCO 218 or COMM 305. This course provides an examination of the techniques, systems, and procedures applicable to the managerial use of accounting information for planning, decision-making, and control. Topics include cost accumulation and allocation, product and process costing, flexible budgeting and variance analysis, evaluation of managerial performance, and transfer pricing.
NOTE: Students who have received credit for ACCO 303 may not take this course for credit.

## ACCO 340 Income Taxation in Canada (3 credits)

Prerequisite: ACCO 213 or COMM 217. This course examines the federal income tax structure, including the taxation of employment, business, property income, and capital gains of individuals and corporations.
NOTE: Students who have received credit for ACCO 441 may not take this course for credit.

## ACCO 345 Managerial Tax Planning

 (3 credits)Prerequisite: ACCO 213 or COMM 217. This course develops an understanding of the role of taxes in business decision processes. It presents a conceptual framework that integrates tax and nontax business issues without resorting to the technical details of the Income Tax Act. The emphasis is on applying key concepts to all planning issues, whether they are personal or corporate, domestic or international. The topics covered include multi-period tax planning, implicit taxes and market equilibrium, tax arbitrage, and international tax planning.
NOTE: Students in the Accountancy Major may not take this course for credit.
NOTE: This course would be useful for students in Finance and Management.

## ACCO 350 Accounting Information <br> Systems (3 credits)

Prerequisite: DESC 222 or COMM 301; ACCO 218 or COMM 305; ACCO 310 or 323. This course examines the role and function of computerized accounting information systems in recording, processing, and storing accounting
data necessary for planning, decision-making, and control of organizations. Theory and practice are combined in a case-study approach which includes "hands-on" experience with computer software.
NOTE: Students who have received credit for ACCO 414 may not take this course for credit. NOTE: This course would be useful for students in Management Information Systems.

## ACCO 355 Analysis of Financial

Statements (3 credits)
Prerequisite: ACCO 218 or COMM 305; FINA 214 or COMM 308. This course explores the usefulness and limitations of financial statements for investment and credit decisions. It focuses on the interpretation of the information contained in financial statements which reflect the economic characteristics of the firm and its strategic business decisions. Instruments and techniques for financial statement analysis are discussed and applied to case studies and actual companies.
NOTE: Students in the Accountancy Major may not take this course for credit.
NOTE: This course would be useful for students in Finance and Management.

ACCO 400 Accounting Theory (3 credits) Prerequisite: ACCO 320 or 326. This course examines the theoretical foundations of the contemporary approach to financial reporting, and the political and pragmatic considerations in the development of the conceptual framework underlying current accounting standards. Alternative theories of accounting are discussed and controversial areas are emphasized.
NOTE: Students who have received credit for ACCO 461 may not take this course for credit.

## ACCO 410 Governmental and Not-forProfit Accounting (3 credits)

 Prerequisite: ACCO 320 or 326 . This course introduces the theory and concepts that underlie the financial accounting, control, and reporting in not-for-profit organizations. General concepts and principles will be illustrated by comparing the practices of selected not-for-profit organizations, including local and federal governments and universities, with authoritative standards.
## ACCO 420 Advanced Financial Accounting (3 credits)

Prerequisite: ACCO 320 or 326 . This course examines the theory and practice of accounting for intercorporate investments, business combinations, consolidation of financial statements, disaggregated information, and foreign currency transactions and operations. The course also examines accounting for partnerships. NOTE: Students who have received credit for ACCO 335 may not take this course for credit.

## ACCO 430 Advanced Management <br> Accounting (3 credits) <br> Prerequisite: ACCO 303 or 330. This course

expands on the problem-solving and decisionmaking tools covered in ACCO 330, and develops the student's ability to select and apply appropriate managerial accounting techniques to cases involving actual companies. This integrative course emphasizes the development of analytical skills needed to solve managerial problems, and covers recent developments in management accounting.
NOTE: Students who have received credit for ACCO 422 may not take this course for credit.

ACCO 440 Advanced Taxation (3 credits) Prerequisite: ACCO 340 or 441 . This course extends the coverage of ACCO 340 with an examination of specialized topics in personal and corporate income tax, including a detailed review of the taxation of corporations, tax planning, and the tax effects of various theoretical and practical business combinations.
NOTE: Students who have received credit for ACCO 442 may not take this course for credit.

ACCO 450 Financial Auditing (3 credits) Prerequisite: ACCO 320 or 326 previously or concurrently. This course examines auditing concepts and methodology underlying audits of financial statements in terms of current practice and standards. It emphasizes the audit process and the role of the public accountant in expressing an opinion on the financial statements of an organization.
NOTE: Students who have received credit for ACCO 429 or 432 may not take this course for credit.

ACCO 460 Operational Auditing (3 credits) Prerequisite: ACCO 320 or 326 previously or concurrently. This course examines the concepts and techniques of operational auditing. It emphasizes the audit of operations within the organization. Topics include comprehensive auditing, management control and systems development, computer-based auditing techniques, documentation and communication of audit findings.

## ACCO 470 Special Topics in Accounting

 (3 credits)Prerequisite: Written permission of the Department. This course is intended to complement accounting courses taken previously or concurrently at the senior level. It provides an opportunity for more intensive study in one or more specific topics in accounting.
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

## ACCO 480 Financial Reporting and Analysis (3 credits)

Prerequisite: ACCO 335 or 420. This course integrates the material covered in prior financial accounting courses. It emphasizes a user perspective of financial reporting, and focuses on the interpretation and analysis of information
contained in financial statements and related disclosures. It provides an understanding of the usefulness and limitations of financial accounting information for investment and credit decisions. Models and techniques used in financial statement analysis are applied to case studies and actual companies.

ACCO 490 Seminar in Taxation (3 credits) Prerequisite: ACCO 440 or 442 . This course provides an in-depth coverage of taxation issues. It emphasizes the development of professional skills in the application of tax principles and concepts to the solution of complex tax problems facing individuals, trusts, and corporations. NOTE: Students who have received credit for ACCO 471A may not take this course for credit.


Decision Sciences and Management Information Systems Co-operative Program

Director
MERAL BÜYÜKKURT, Associate Professor
(514) 848-2741

The Decision Sciences and Management Information Systems co-operative program is offered to students who are enrolled in the BComm program and are majoring in Management Information Systems. Students interested in applying for the Management Information Systems co-op should refer to §24 where a full description of the admission requirements is provided.
Academic content is identical to that of the regular program, but six Study terms are interspersed with four Work terms.
Students are supervised personally and must meet the requirements specified by the John Molson School of Business and the Institute for Co-operative Education in order to continue their studies in the co-op format.
Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Management Information Systems co-op committee, which includes the student's advisers. Please refer to $\$ 24$ for the schedule of Study and Work terms and the full description of admission requirements.

DESC 325 Operational/Tactical Issues in Operations Management (3 credits)
Prerequisite: COMM 225. Operations management issues and problems with short-medium term implication will be studied in this course. Among the topics covered are: production planning and control, scheduling, materials handling, warehousing, purchasing, and inventory management. Both modelling and managerial aspects will be dealt with. Manufacturing analysis and enterprise resources planning software will be used to demonstrate the integration of the topics covered and their practical applications.
NOTE: Students who have received credit for DESC 350 or MANA 345 may not take this course for credit.

DESC 335 Quality Management (3 credits)
Prerequisite: COMM 215 or DESC 244; COMM 225 or DESC 250. Operational issues in managing quality in manufacturing and service operations will be dealt with. The main focus of the course is on the technical issues in quality management aimed at developing hands-on knowledge. Topics such as Quality Management Philosophies, Total Quality Management, Process Management and Continuous Improvement, Quality Management Evaluation and Assessment (including ISO certification), Quality Assurance and Control (including Statistical Process Control, Reliability) will be covered. Software packages will be used for analysing problems with real-life data.

## DESC 361 Management Science Models for Operations Management (3 credits)

Prerequisite: COMM 225 or DESC 250. This course deals with application of optimization models (such as linear programming, network models, integer programming, quadratic programming, and waiting line models) for various operations management scenarios dealing with human, physical, and financial resources planning. The course focuses on mathematical modelling
issues and interpretation of solution through the use of optimization software packages. NOTE A/See §200.2

## DESC 375 Survey Design and Analysis

 (3 credits)Prerequisite: COMM 215 or DESC 244. This course deals with the design and execution of surveys and treatment of data consisting of measurements of several variables. Topics include development of research problems, sample design, survey data analysis, and elementary multivariate techniques. Students are required to carry out a project individually or in small groups. Substantial use is made of statistical software on mainframe and/or microcomputers. NOTE A/See §200.2

## DESC 378 Statistical Models for Business

 Research (3 credits)Prerequisite: COMM 215 or DESC 244. This course is intended to give the student a foundation in data analysis using linear models, with emphasis on applications in business, administration, and economics. Topics include regression modelling with several variables; one- and twofactor analysis of variance; time series analysis and forecasting. The course is applied in nature with a focus on real-life data analysis using statistical software packages. NOTE A/See §200.2

## DESC 381 Introduction to Business Computer Programming (3 credits)

Prerequisite: COMM 301 or DESC 222. The objective of this course is to provide students with the skills needed to develop computerbased applications. To this end, students will first learn fundamental software development techniques that will enable them to solve business information-processing problems, using both procedural and non-procedural approaches. They will then apply these concepts and techniques by developing business applications in a contemporary programming language such as Visual Basic. NOTE A/See §200.2

## DESC 382 Database Management

 (3 credits)Prerequisite: COMM 301 or DESC 222. This course introduces students to the management of data in a corporate environment. Topics include data management, elementary data modelling, physical structures for representing business data, file organization, data dictionaries, file design, database administration, and issues in documentation. Use is made where feasible of professional data management software to illustrate course concepts. NOTE A/See §200.2

## DESC 384 Business Data Communications

 (3 credits)Prerequisite: COMM 301; COMP 218 or 248. This course will provide a comprehensive introduction to the principles and techniques of business data communications. The content is directed towards the business student who desires a technical overview of the concepts of data transmission and methodologies employed in designing and managing local area and regional communications networks.
NOTE: Students who have received credit for DESC 486 may not take this course for credit.

## DESC 385 Decision Support Systems

 (3 credits)Prerequisite: COMM 301 or DESC 222. New developments in information technology such as data bases, fourth-generation languages, and artificial intelligence have changed the nature of traditional business decision support systems (DSS). This course starts by examining the human decision-making process and categorizes decision tasks. It then evaluates the requirements for effective user-machine decision making. The impact of the new end-user computing tools is considered in relation to DSS design.
NOTE: Students who have received credit for DESC 493 may not take this course for credit.

## DESC 387 Fundamentals of Electronic Business (3 credits)

Prerequisite: COMM 301. This is an introductory course designed to familiarize students with the fundamental, technical, and managerial issues concerning electronic business. Topics covered include E-business strategies and models; strategic role of electronic commerce technologies; underlying technologies; knowledge management; intelligent systems; customer relationship management; trust, money and markets; new organizational forms and virtual enterprises; security and ethical issues. The learning occurs through the study and discussion of conceptual reading material and analysis.
NOTE: Students who have received credit for this topic under a DESC 490 number may not take this course for credit.

## DESC 388

Systems Development Methodologies for Electronic Business (3 credits)
Prerequisite: COMM 301. This course focuses on
the management of data in a corporate database environment and the most recent developments in system analysis and design methodologies. Topics include feasibility analysis, systems analysis, process modelling, data modelling, database design, database technology, database implementation utilizing relational software, database administration, client-server/distributed database environment, and Web-based technologies. Teaching methods used include lectures on theory and tools, exercises assigned to reinforce the theory and tools, and a term project involving practical experience on analysis of a real business information system.
NOTE: Students who have received credit for DESC 382 or 481 may not take this course for credit.
NOTE: MIS Majors or Minors may not take this course for credit.

## DESC 389 Electronic Business Supply Chain (3 credits)

Prerequisite: COMM 225; DESC 387 previously or concurrently. This course examines the strategies and processes for dealing with all partners in the chain of service or goods provision, from initial input through final output and consumption. Extensive laboratory experience provides students with the basic concepts in the use of tools for enterprise resource-planning (ERP) and decision support systems. Students learn how the principles of supply-chain management integrate into the "real-time" environment of E-business, and examine case studies of such implementations. Latest software and technology are discussed and examples demonstrated. This is a combined lecture and technology hands-on course. The issues of supply-chain management are covered during class lectures and discussions. In laboratory sessions, students learn the basics of an ERP software package, as well as undertake an analysis of material from a company database.
NOTE: Students who have received credit for this topic under a DESC 490 number may not take this course for credit.

## DESC 390 Production/Manufacturing Management (3 credits)

Prerequisite: COMM 225 or DESC 250. It is the production function of the enterprise that gives us the products and services that we sell. In this course, we attempt to help management guide and control this area. Topics include government programs and incentives, health and safety regulations, material handling, plant location and layout, and production incentive systems.
NOTE: Students who have received credit for MANA 345 may not take this course for credit.

## DESC 425 Strategic Issues in Operations Management ( 3 credits)

Prerequisite: DESC 325 or 350 . Issues related to product/service and process strategies, management of technology, capacities management, facilities planning, and cycle time man-
agement will be dealt with. Also, issues in contemporary operations management such as minimalistic manufacturing, activity/target-based costing, synchronous manufacturing and business process-re-engineering will be covered. The focus and examples would be both on service, as well as on manufacturing operations.

## DESC 445 Statistical Software for Decision Making (3 credits)

Prerequisite: DESC 378. This course presents a thorough introduction to widely used statistical software systems for data management (information storage and retrieval), data modification and programming, file handling, and procedures for statistical analysis and reporting. It also covers current software on mainframe and/or microcomputers, and covers special features such as graphics and macro languages. The course will be offered in computer labs and will expose the students to the use of the software on different platforms and different operating systems.

## DESC 477 Managerial Forecasting (3 credits)

Prerequisite: DESC 378 or equivalent. This course presents the foundations of applied time-series analysis for managerial forecasting. It includes forecasting methods and objectives, fundamental concepts in time-series analysis, models for seasonal time-series, models for nonstationary time-series, Box and Jenkins methods, forecast evaluation. This is an applied course with a heavy emphasis on actual data analysis using statistical computer packages on mainframe and/or microcomputers.
NOTE A/See §200.2
DESC 481 Information Systems Analysis (3 credits)
Prerequisite: COMM 301 or DESC 222. This course covers the first phase of the systems development life cycle, which culminates in the systems proposal. Topics include the preliminary survey, analysis of existing systems and identification of deficiencies, the development of functional specifications, feasibility and cost/ benefit analysis and development of a recommended course of action. In addition, various diagramming techniques are examined.
NOTE A/See §200.2

## DESC 482 Information Systems Design

 (3 credits)Prerequisite: DESC 382, 481. Methods and procedures for designing business information systems are discussed. Topics include data and process modelling, preparing screen and report layouts using data dictionaries and documentation within the design process. A comprehensive case study using current computer-aided technologies demonstrates various design concepts.
NOTE A/See §200.2
NOTE: To ensure proper succession in the thought process, students are strongly recom-
mended to enrol in this course in the term immediately following the successful completion of DESC 481.

## DESC 484 Software Application Development (3 credits)

Prerequisite: DESC 482. Students will implement the applications they have analysed and designed in DESC 481 and 482. New development tools and languages will be employed in this implementation effort.
NOTE: Students who have received credit for DESC 383 may not take this course for credit.

## DESC 487 Object-Oriented System Development (3 credits)

Prerequisite: DESC 481; COMP 218 or 248.
This course is an introduction to the concepts, techniques, and methodologies of the ObjectOriented (OO) approach to information system development. Fundamental concepts of objects models will be followed by a study of various 00 methods for system analysis and design. Finally, a comparative survey of several contemporary OO implementation technologies such as object languages, object databases, and distributed object architecture will be presented. Students will then use one of these methodologies to develop a small-scale business system.

## DESC 488 Web Site Construction and Management (3 credits)

 Prerequisite: DESC 387; DESC 388 (for non-MIS Majors) or DESC 382 and 481 (for MIS Majors). This course is a general overview of Web site design and management. Topics include a general introduction to the World Wide Web and the Hypertext Transfer Protocol (HTTP); HTML scripting (including tables, frames, and cascading style sheets); JavaScript programming (document object model; input validation, graphics tricks); Perl programming (overview; scalar, array and hash data types; control structures, regular expressions; basic I/O; file access references and object-oriented programming); server configuration (types of servers; basic configuration parameters); CGI scripting (CGI basics, secure programming); and database integration. The major project involves the development of an E-commerce site.NOTE: Students who have received credit for this topic under a DESC 490 number may not take this course for credit.

## DESC 489 Electronic Business

 Implementation (3 credits) Prerequisite: DESC 387; DESC 388 (for non-MIS Majors) or DESC 382 and 481 (for MIS Majors). Electronic commerce describes the ways in which business activities take place over networks. It is a process of marketing, evaluating, procuring, selling, buying, and also producing goods, services, and information. E-commerce changes the traditional systems used for purchasing, sales, operations and marketing. Topics covered include E -commerce architectures and implementationstrategies; E-commerce systems components; system design; creating and managing content; transaction processing; back office systems; cryptography and security; and payment systems. Teaching methods consist of a series of lectures, case discussion, tutorials introducing several technologies for the development of Web-based systems (including HTML, XML, CGI and CSS, and basics of Unix/Linux). The major project involves the development of an E-commerce site developed for a specific business customer. NOTE: Students who have received credit for this topic under a DESC 490 number may not take this course for credit.

DESC 490 Special Topics in Decision Sciences and Management Information Systems (3 credits)
Prerequisite: Permission of the Department. This course allows for more intensive examination of one or more topics in production/operations management, operations research, business statistics or management information systems.

DESC 492 Business Simulation ( 3 credits) Prerequisite: COMM 215 or DESC 244; COMM 225 or DESC 250. This course is intended to give an insight into using simulation technique for building realistic models of complex systems, and how to use these models to experiment with alternative system designs. Application areas will include manufacturing and production systems, transportation systems, health-care systems, government/public systems, and financial systems. A simulation language will be taught and application of animation will also be dealt with. NOTE A/See §200.2

## DESC 495 Information Systems Design and Implementation (3 credits)

Prerequisite: DESC 381, 382, 481. The main objective of this course is to expose students to the concepts, tools, and techniques they need to transform the information system requirements, resulting from the system analysis phase, into system design specifications, and to transform
the information system design specifications, resulting from the system design phase, into a working system. Topics include data and process analysis and design to distribute data and activities into design units; development of database specifications, input/output design specifications, user interface specifications and structured program design specifications; system implementation activities; project repository. Besides the formal lectures, assigned exercises, workshop and in-class discussions, students will be asked to apply system design tools and techniques to a specific business application.
NOTE: Students who have received credit for DESC 482 or 484 may not take this course for credit.

DESC 496 Management of Information Technology (3 credits)
Prerequisite: DESC 481. This course focuses on the issues and management techniques involved in administering the activities of Information Technology (IT) resources in an organization. Issues include such things as management of IT professionals, development of project management systems, acquisition of hardware/software, organizational structure, planning processes and management control of IT resources. Although most of the course material applies to managing the operations function within the IT department, the emphasis is on the manager's role as designer, facilitator, and change agent in managing the development and implementation of computerbased information systems and in managing the evolving IT organization. A socio-technical perspective will be emphasized to ensure a balanced look at technical and people issues. Besides the formal lectures, assigned exercises, workshop and in-class discussions, students will be asked to apply their managerial and consulting skills to a specific business application. NOTE A/See §200.2
NOTE: Students who have received credit for DESC 386 or 483 may not take this course for credit.

### 61.60 <br> ECONOMICS

## Location <br> Sir George Williams Campus <br> Annex ER, Room: 100 <br> (514) 848-3900

Programs
For departmental information please see $\S 31.080$.

| 24 | Major in Economics | $\mathbf{1 2}$ | Minor in Economics |
| :--- | :--- | ---: | :--- |
| 12 | ECON 301, 302, 303, 304 | 6 | ECON 318, 319 |
| 12 | ECON elective credits chosen at the 400 | 6 | ECON elective credits chosen at the |
|  | level |  | 300 level |

24 Major in Economics
ECON 301, 302, 303, 304 level

[^3]
# 61.70 <br> <br> FINANCE 

 <br> <br> FINANCE}


|  | Sir George Williams Campus |
| :--- | :--- |
| Annex GM, Room: $300-55$ |  |
|  | (514) $848-2789$ |

Department
Objectives

The Department of Finance is committed to excellence in both research and teaching and has earned a solid reputation as a productive and research oriented academic unit. The Department's research activities include theoretical, empirical, and applied contributions - all aimed at furthering knowledge in the field. Its teaching activities cover a wide range of topics including corporate finance, investment, international finance, personal finance, optimization techniques, portfolio management, options and futures and fluctuations in security prices, exchange rates, and interest rates. Teaching effectiveness represents the cornerstone of the Department's teaching objectives. The Department's curriculum is a dynamic one which keeps up with current trends and innovations in the financial area. Department members have been recognized not only with Faculty Teaching Awards but also internationally by winning the 3M Teaching Fellowship Award.
The Department has developed orientation and training programs with major corporations and financial institutions for its students. Through this type of external involvement, classroom teaching is effectively blended with the complexities of the real world thereby providing students not only with a more meaningful education but also with job opportunities.

|  | 24 | Major in Finance |
| :--- | ---: | :--- |
|  | 3 | FINA 380 |
| 3 | FINA 390 |  |
|  | 18 | additional 400-level credits offered by |
|  |  |  |
|  | the Department |  |


| 12 | Minor in Finance |
| ---: | :--- |
| 3 | FINA 380 |
| 3 | FINA 390 |
| 6 | additional 400-level credits offered by |
|  | the Department |

## 12 Minor in Finance

additional 400 -level credits offered by the Department

Finance
Co-operative
Program

Director
ARSHAD AHMAD, Associate Professor
(514) 848-2928

The Finance Co-operative program is offered to students who are enrolled in the BComm program and are majoring in Finance. Students interested in applying for the Finance co-op should refer to §24 where a full description of the admission requirements is provided.
Academic content is identical to that of the regular program, but six Study terms are interspersed with four Work terms. Students will be under personal supervision and must meet the requirements specified by both the John Molson School of Business and the Institute for Co-operative Education in order to continue their studies in the co-op format.

FINA 320
Mrerequisite: COMM 308 or FINA 315. This course is designed to assist the student in making rational decisions when consulting in personal financial activities. Topics covered include personal budgeting, spending pattern analysis, the proper use of credit, housing, investment (both traditional and modern), tax and retirement planning. Case studies are utilized when possible.
NOTE: Finance Majors and Minors may not take this course for credit towards their Major or Minor.
NOTE: Students who have received credit for FINA 424 may not take this course for credit.

## FINA 330 Applied Financial Management

 (3 credits)Prerequisite: COMM 308 or FINA 315. The intent of this course is to develop skill in the identification and structuring of financial problems, in the selection of appropriate analytical techniques for their solution, and in the application of such techniques to decision-making in actual business situations. A variety of cases are used to achieve these objectives.
NOTE A/See §200.2
NOTE: Finance Majors and Minors may not take this course for credit towards their Major or Minor.
NOTE: Students who have received credit for FINA 430 may not take this course for credit.

## FINA 350 Introduction to Real Estate (3 credits)

Prerequisite: COMM 308 or FINA 315. This course deals with the central issues in real estate finance and investment. Topics in property management and real estate development which are covered include the organization of real estate markets, pricing, inflation, taxation, valuation methods, brokerage, ownership forms, and real estate law.
NOTE: Finance Majors and Minors may not take this course for credit towards their Major or Minor. NOTE: Students who have received credit for FINA 491 may not take this course for credit.

## FINA 370 (also listed as IBUS 370) International Financial Management (3 credits)

Prerequisite: COMM 308 or FINA 315. This course is designed for students to acquire and demonstrate knowledge of the fundamental principles and issues in international financial management. It covers such topics as foreign exchange markets, exchange rate behaviour, structure and meaning of the international balance of payments, the functioning of fixed and floating exchange rate systems, short- and long-term investment and borrowing decisions, eurocurrency markets, foreign exchange risk management, and capital budgeting decisions for overseas investment. In sum, the topics are
covered from the perspective of an individual who wishes to know how the international financial environment will affect the firm. NOTE: Finance Majors and Minors may not take this course for credit toward their Major or Minor. NOTE: Students who have received credit for FINA 467 or IBUS 370 or 469 may not take this course for credit.

FINA $380 \quad$ Theory of Finance (3 credits)
Prerequisite: COMM 308 or FINA 315. This course provides a theoretical foundation upon which subsequent 400 -level courses can be built. The course investigates the perfect capital markets paradigm in the context of how asset prices are related; how price relationships are grounded in utility theory; how formal asset pricing and related models, such as the Capital Asset Pricing Model, Arbitrage Pricing Theory, Option Pricing Model and the Miller-Modigliani Propositions, are implications of the paradigm; and how price relationships are changed in imperfect markets.
NOTE: Students who have received credit for FINA 440 may not take this course for credit.

## FINA $390 \quad$ Theory of Capital Markets (3 credits)

Prerequisite: COMM 308 or FINA 315; FINA 380 or 440 previously or concurrently. This course extends the concepts covered in FINA 380 to a consideration of the way in which domestic and international capital markets operate. The course will survey the reasons why different markets have different institutional characteristics; how various markets are used by investors and financial managers; how prices in these markets behave; and what the implications of the functioning of various markets are for financial decision makers. NOTE A/See §200.2
NOTE: Students who have received credit for FINA 460 may not take this course for credit.

## FINA 400 Theory of Corporate Finance (3 credits)

Prerequisite: FINA 380 or 440; FINA 390 or 460. This course focuses on the application of the modern theory of finance to corporate decisions. Building upon the material covered in FINA 380 and 390, it examines the firm's investment and financial decisions under various economic and capital market conditions. More specifically, topics covered include cost of capital, capital structure decisions, evaluation and the application of the recently developed financial innovations in the debt market (e.g., swaps and junk bonds), mergers and acquisitions and leveraged buyout decisions, and dividend and equity management strategies. NOTE A/See §200.2
NOTE: Students who have received credit for FINA 441 may not take this course for credit.

FINA 401 Capital Budgeting (3 credits) Prerequisite: FINA 380 or 440 ; FINA 390 or 460. This course provides an in-depth coverage of analytical techniques for rational capital investment decisions by corporations. Emphasis is placed on the assessment of investment choices within the overall strategic framework of the firm, and on the practical as well as the theoretical aspects of the decision process.

## NOTE A/See §200.2

NOTE: Students who have received credit for FINA 417 may not take this course for credit.

## FINA 402 Short-Term Financial Management (3 credits)

Prerequisite: FINA 380 or 440; FINA 390 or 460. This course is concerned with the key aspects of short-term financial management. It begins with a brief coverage of the institutional environment facing the financial manager in Canada. A detailed coverage of sources for short-term borrowing and investments is presented. The structure of the Canadian financial system along with a description of the various methods of effecting payments as well as the clearing and settlement system are covered. Topics in overall liquidity management are briefly reviewed from a theoretical perspective. Traditional subjects in cash management, i.e., collections, disbursement and control, forecasting, company bank relationship, and shortterm investment and borrowing are examined next. Such new developments as electronic data interchange and EFT/POS are also examined. The course also provides a coverage of trade credit both from a theoretical positive standpoint and normative viewpoint.
NOTE: Students who have received credit for FINA 420 may not take this course for credit.

## FINA 410 Investment Analysis (3 credits)

Prerequisite: FINA 380 or 440 ; FINA 390 or 460. This course is devoted to an examination of the investment decision, both from the viewpoint of the individual investor and the institutional investor. Valuation of different financial instruments such as treasury bills, bonds, common stocks, preferred stocks, options, warrants, convertibles, rights, futures both commodity and financial, mutual funds and pension funds, and the use of different instruments in various investment strategies such as investment, speculation, hedging, and arbitrage are examined. Techniques examined by analysts to pick investments such as fundamental analysis, technical analysis, and quantitative analysis are studied.
NOTE A/See §200.2
NOTE: Students who have received credit for FINA 452 may not take this course for credit.

## FINA 411 Portfolio Management

(3 credits)
Prerequisite: FINA 380 or 440; FINA 390 or
460. This course focuses on modern investment theory and its application to the management of
entire portfolios. Topics include: a) construction of optimal asset portfolios using techniques such as the single index model, b) extensions of the capital asset pricing model theory and tests example, the zero-beta model, c) criteria for evaluation of investment performance, d) active vs. passive portfolio management, e) portfolio insurance, f) market efficiency. A computer exercise is assigned to illustrate the application of the theory. NOTE A/See §200.2 NOTE: Students who have received credit for FINA 453 may not take this course for credit.

FINA 412 Options and Futures (3 credits)
Prerequisite: FINA 380 or 440 ; FINA 390 or 460. This course on options and futures is a comprehensive analysis of the options and futures markets in North America. The student is introduced to the different markets for these instruments and their institutional details. The different types of options and futures currently trading are examined. The principles of valuation of futures and options, their use in risk management through hedging techniques and their use in speculative strategies are studied. Emphasis is placed on the analysis of financial options and futures.
NOTE: Students who have received credit for FINA 419 may not take this course for credit.

## FINA $450 \quad$ Real Estate Investment and Finance (3 credits)

Prerequisite: FINA 380 or 440; FINA 390 or 460. This course deals with both the central issues in real estate finance and investment and with recent advances in the field. Students will be introduced to basic topics such as the organization of real estate markets, pricing, inflation, taxation, valuation methods, brokerage, ownership forms, and real estate law. In addition, they will study recent advances in finance as they apply to the concept of real estate valuation. Principles learned in FINA 380 and 390 and academic journals will serve as the basis for this aspect of the course. NOTE: This course is offered for Finance Majors and Minors only. Non-Finance Majors and Minors must register for FINA 350. NOTE: Students who have received credit for FINA 350 or 491 may not take this course for credit.

FINA $455 \quad$ Seminar in Finance (3 credits) This course is intended primarily for Finance Majors and Minors. It provides an opportunity for more intensive study in one or more specific topics of finance. The topic varies according to the special interests of the professor and the students. Enrolment is restricted and is subject to departmental approval. Students repeating FINA 455 register for credits under FINA 456. NOTE A/See §200.2
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

FINA 470 International Finance (3 credits) Prerequisite: FINA 380 or 440; FINA 390 or 460. This course examines the fundamental principles and issues in international finance. After examining the recent global evolution of the international financial environment, the institutional characteristics of foreign exchange and Eurocurrency markets will be studied. In addition, in-depth coverage of various issues relating to forecasting exchange rates, capital movements, and the international structure of interest rates is provided. Several mechanisms for managing international exchange and financial risk will be assessed, including forwards, options, and futures on currencies as well as on interest rates. The course will conclude with a survey of recent international asset pricing models.
NOTE: This course is offered for Finance Majors and Minors only. Non-Finance Majors and Minors must register for FINA 370.
NOTE: Students who have received credit for FINA 370 or 467 , or IBUS 370 or 469 may not take this course for credit.

FINA $480 \quad$ Management of Financial Institutions (3 credits)
Prerequisite: FINA 380 or 440; FINA 390 or
460. The objective of this course is to provide a framework for understanding the fundamental variables and relationships that affect the management of Canadian financial institutions in the domestic and international environment. Specific topics include an overview of the financial institutions sector, the regulatory framework, performance and cost analysis, strategic planning, capital structure issues, asset and liability management, management of financial institution risk, international intermediation, and financial innovation. NOTE A/See §200.2
NOTE: Students who have received credit for FINA 461 may not take this course for credit.

## FINA 490 Cases in Finance (3 credits)

Prerequisite: FINA 380 or 440 ; FINA 390 or 460. This course uses case discussions to focus on the application of the principles of finance learned in FINA 380 and 390 in real-world contexts. Cases will cover topics in corporate finance, investments, and financial markets and institutions. NOTE A/See §200.2 NOTE: Students who have received credit for FINA 431 may not take this course for credit.

# 61.80 

INTERNATIONAL BUSINESS

Program Director
RAMDAS CHANDRA

| Location | Sir George Williams Campus <br> Annex GM, Room: 300-37 <br> (514) 848-2956 |
| :--- | :--- |
| Program | The globalization of business is increasing the demand for managers who are comfortable working in <br> Objectivesa variety of diverse and multi-cultural environments. The Major in International Business is an attractive <br> and exciting preparation for such a career. International business issues are examined from a strategic <br> perspective and students are also exposed to several disciplines including international management, <br> marketing, and finance, as well as international aspects of politics, economics, and sociology. <br> Students are strongly encouraged to enrol in language courses as elective courses. Adding a Minor in <br> a more specific discipline of interest is also suggested to further complement this program. <br> Participation in the International Student Exchange Program is also highly recommended. This <br> experience will add a more relevant and unique perspective to the overall scope of this exciting degree. |


| Programs | 24 Major in International Business <br> 9 IBUS 462, 466, 492 <br> 15 additional credits chosen from IBUS 370, 465, 471, 493; ECON 319; POLI 305, 307, 315, 394 | 12 Minor in International Business <br> 9 IBUS 462, 466, 492 <br> 3 additional credits chosen from IBUS 370, 465, 471, 493 |
| :---: | :---: | :---: |
| Courses | IBUS 370 (also listed as FINA 370) International Financial Management (3 credits) <br> Prerequisite: COMM 308 or FINA 315. This course is designed for students to acquire and demonstrate knowledge of the fundamental principles and issues in international financial management. It covers such topics as foreign exchange markets, exchange rate behaviour, structure and meaning of the international balance of payments, the functioning of fixed and floating exchange rate systems, short- and long-term investment and borrowing decisions, eurocurrency markets, foreign exchange risk management, and capital budgeting decisions for overseas investment. In sum, the topics are covered from the perspective of an individual who wishes to know how the international financial environment will affect the firm. NOTE: Students who have received credit for FINA 370 or 467 or IBUS 469 may not take this course for credit. <br> IBUS 462 (also listed as MARK 462) Environment of World Business (3 credits) <br> Prerequisite: COMM 305 or ACCO 218; COMM 215 or DESC 244 or equivalent; COMM 308 or FINA 214; COMM 210 or MANA 266; COMM 224 or MARK 350. This is a foundation course in international business; the | objective is to present information which exposes the student to cultural, social, political, economic, legal, and financial environments in which Canadian business executives manage their operations abroad. All students are encouraged to develop their own philosophy towards international business activities by developing research and analytical skills in analysing current and long-term problems perceived in different economic systems and environments. Specific topics include empirical dimensions of world economy, economic development, international trade and investment patterns, regional economic co-operation, area studies, Canadian nationalism, and foreign investment in Canada, etc. <br> NOTE: Students who have received credit for MARK 462 may not take this course for credit. <br> IBUS 465 (also listed as MARK 465) <br> International Marketing <br> Management (3 credits) <br> Prerequisite: COMM 224 or MARK 350; MARK 462 or IBUS 462. This course studies the management approach to international marketing, with emphasis on key variables that are controllable by the international marketing manager. Attention is focused on market measurement, product policy, channels, pricing, and promotion, with special emphasis on the development and control of multinational |

marketing strategies and programs. Students will execute a project directed to a selected part of the world.
NOTE: Students who have received credit for MARK 465 may not take this course for credit.

## IBUS 466 (also listed as MANA 466) Management of Multinational Corporations (3 credits)

Prerequisite: MARK 462 or IBUS 462;
COMM 222 or MANA 340. This is a course that demonstrates the analytical tools of operations and organization theory applicable within a multinational company. The course is designed to give students a grasp of the problems of strategy formulation and organization, and inculcates a general knowledge of the major parameters in which an international manager operates. Focus is on the Canadian as well as other international companies based in U.S.A., Europe, Japan, etc.
NOTE: Students who have received credit for MANA 466 may not take this course for credit.

IBUS 471 Topics in International Business (3 credits)
Prerequisite: MARK 462 or IBUS 462. This course is intended primarily to provide an opportunity for more intensive study in one or more specific topics of international business. The topic will vary according to the special interests of the professor and the students. NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

IBUS 492 (also listed as MARK 492) Cross-Cultural Communications and Management (3 credits)
Prerequisite: MARK 462 or IBUS 462. This course deals with the multicultural dimensions of international business operations. The objective is to develop Canadian managerial skills for effective performance in an international setting. Topics to be covered include international negotiations, management of multicultural personnel, cross-cultural consumer behaviour profile, cross-cultural communication, and other cultural aspects of marketing strategy. NOTE: Students who have received credit for MARK 492 may not take this course for credit.

## IBUS 493 (also listed as MANA 493)

 International Business Law (3 credits)Prerequisite: MARK 462 or IBUS 462;
COMM 315 or MANA 475. This course is an introduction to international business law. The focus is Canadian but comparative material is included and problems relating to other legal systems are examined. Topics to be covered include private loans applicable to international business transactions, international sales, federal regulations, export controls and anti-dumping, export insurances, and bilateral trade agreements. NOTE: Students who have received credit for MANA 493 may not take this course for credit.

### 61.90 <br> MANAGEMENT



## Programs

| 24 | Major in Management |
| :--- | :--- |
| 24 | Credits of MANA 342, 343, 362, 402, |
|  | 420, 446, 451, 461, 466, 476, 499; |
|  | IBUS 492 |
| 12 | Minor in Management |
| 12 | Credits from the program of Major in |
|  | Management |
| 12 | Minor in Entrepreneurship and Small |
|  | Business Management |
| 3 | MANA 451 |
| 3 | MANA 454 |
| 6 | Credits of MANA 343, 420, 476 |

6 Credits of MANA 343, 420, 476

24 Major in Human Resource Management
3 MANA 342
3 MANA 343
3 MANA 362
3 MANA 420
3 MANA 463
9 Credits of MANA 402, 443, 444, 445, 446, 498

12 Minor in Human Resource Management
3 MANA 362
9 Credits of MANA 402, 443, 444, 446, 463, 498

Director

Management Co-operative Program

BARBARA SHAPIRO, Lecturer
(514) 848-2780

The Management Co-operative program is offered to students who are enrolled in the BComm program and are majoring in Human Resource Management. Students interested in applying for the Human Resource Management co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is identical to that of the regular program, but six Study terms are interspersed with four Work terms. Students will be under personal supervision and must meet the requirements specified by both the John Molson School of Business and the Institute for Co-operative Education in order to continue their studies in the co-op format.

MANA 211 Business Law ( 6 credits)
A general survey of the law obtaining in the Province of Québec, with special emphasis on the aspects thereof relating to business and commerce. It includes a basic outline of the law of domicile, marriage, persons, property, ownership and its modifications, successions, gifts and wills, testamentary executors, contracts, quasi-contracts, offences and quasi-offences, privileges, hypothecs and prescription, and a more detailed study of the contract of sale, lease and hire of things and of work, mandate, loan, deposit, partnership, suretyship, pledge, insurance, and an outline of the basic law applying to negotiable instruments, corporations, carriers, bankruptcy and winding up, and copyrights, patents, and trade marks.
NOTE A/See §200.2
NOTE: Commerce and Administration students may not take this course for credit.

## MANA 213 Foundations of Behaviour

 (3 credits)The purpose of this course is to introduce the student to those behavioural concepts relevant to the study of organizational problems. Topics include perception, attitudes, personality, group behaviour, roles, and culture as they relate to organizational processes.
NOTE: Students who have received credit for PSYC 200 or equivalent may not take this course for credit.
NOTE: Commerce and Administration students may not take this course for credit.

## MANA 266 Foundations of Modern Management (3 credits)

This course introduces students to the basic elements of the managerial process (e.g., planning, organizing, controlling, motivating, etc.) and presents the historical base upon which contemporary management theory and practice is built. The evolution and scope of management are considered, with illustrations from both large and small Canadian enterprises.
NOTE: Students entering the BComm or BAdmin program as of September 1996 may not take this course for credit.

MANA 341 Organization Theory (3 credits) Prerequisite: COMM 222 or MANA 340. The function, structure, and processes of organizations provide the focus for study. Interrelationships among the psychosocial, technological, and formal properties of organizations are examined. Emphasis is placed on the diagnosis, analysis of organizational problems, and optimal-design alternatives for improving organizational performance and effectiveness are explored. The objective is to provide the student with a
thorough understanding of the nature of contemporary complex organizations.

## MANA 342 Organizational Change and Development (3 credits)

Prerequisite: COMM 222 or MANA 340. An administrative perspective of the behavioural and rational empirical strategies for effecting change in organizations. Emphasis is placed on an eclectic approach to the planning and implementation of change. Models and methods of change are reviewed, and opportunities for the development of change-agent skills are provided.

## MANA 343 Negotiation and Conflict Resolution (3 credits)

Prerequisite: COMM 222 or MANA 340. This course examines the causes and consequences of disputes and provides alternative strategies for negotiating and resolving conflicts. It utilizes lectures, videos, cases, interactive exercises, empirical research and videotaping to convey concepts and enhance one's ability to effectively negotiate and resolve disputes. NOTE: Students who have received credit for MANA 441 may not take this course for credit.

## MANA 362 Human Resource Management

 (3 credits)Prerequisite: COMM 222 or MANA 340. The aim of the course is to provide a sound background in fundamentals, theory, principles, and practice of human resource management. It focuses on the areas of human resource planning, personnel recruitment, selection and placement, performance appraisal, and career planning. NOTE A/See §200.2
NOTE: Students who have received credit for MANA 462 may not take this course for credit.

MANA 364 Industrial Relations (3 credits) Prerequisite: COMM 222 or MANA 340. Industrial Relations is a survey course designed to provide comprehensive knowledge about the state of labour-management relations in Canada. NOTE A/See §200.2

## MANA 365 Collective Bargaining (3 credits)

Prerequisite: MANA 364; MANA 343 or 441. This course is designed to help the student understand the day-to-day problems of negotiating and administering collective agreements. Course content takes into consideration behavioural aspects of industrial relations. NOTE A/See §200.2

MANA 369 Canadian Business and its Environment (3 credits)
Prerequisite: COMM 215 or DESC 244;

ECON 203; COMM 210 or MANA 266; COMM 308 or FINA 214; COMM 224 or MARK 213. The purpose of this course is to examine the functioning of Canadian business and its relationships with its public, including stockholders, consumers, employees, labour, community, and government. Major contemporary issues, such as the impact of technology on people and the physical environment, are examined. NOTE A/See §200.2

MANA 402 Supervisory Practice (3 credits) Prerequisite: COMM 222 or MANA 340. A seminar focusing on the emerging understanding of leadership and supervisory techniques in task-oriented organizations. Contemporary concepts and research on leadership and supervision are examined. The seminar analyses the multiple bases for influence and the situational or contingency aspects of leadership. A balance among the conceptual, diagnostic, and experiential approaches to the development of supervisory capability is emphasized.

## MANA 420 Business Research Methods (3 credits)

Prerequisite: COMM 222 or MANA 340;
COMM 215 or DESC 244. This seminar focuses on the means by which social and organizational data can be gathered, analysed, and interpreted. Needs of the firm for efficient, timely, and unobtrusive research are given special attention. Topic coverage includes applications of the scientific method, research design, field research techniques, data analysis, research utilization, and use of existing information sources. Student projects parallel the classroom activities by designing and conducting business research studies of limited scale.

MANA 442 Managerial Concepts (3 credits) Prerequisite: COMM 222 or MANA 340. This course provides an opportunity for intense study of recent developmental topics within the discipline. Topics might include women in management; managing in Québec; management by objectives; long-range planning; equity theories of motivation; changing roles of managers.

## MANA 443 Compensation and Benefits Management (3 credits)

Prerequisite: MANA 362 or 462 . The purpose of this course is to provide a thorough understanding of the role, conceptual basis, procedures, and methods associated with the management and administration of compensation and benefits within an organization. Issues such as job families and ladders, salary surveys, position valuation, pay equity, incentive compensation, and benefits administration are addressed.

## MANA 444 Training and Development

 (3 credits)Prerequisite: MANA 362 or 462 . This course examines the conceptual and practical issues regarding orientation of new employees, the
socialization process, learning theories and diagnoses, training technologies, developmental strategies, and the management of the training and development function.

## MANA 445 Health and Safety Management

 (3 credits)Prerequisite: MANA 362 or 462. This course examines the critical aspects of health and safety administration within organizations. It provides a brief overview of the relevant legislation and focuses upon prevention, causes, detection, intervention, reintegration, epidemiological and clinical investigation, and health development. Physical and psychological aspects of health and safety are examined.

MANA 446 Staffing (3 credits)
Prerequisite: MANA 362 or 462 . This course is designed to cover the theory, research, and practice of organizational staffing. The primary focus of this course will be on the theoretical, analytical, and conceptual tools needed to effectively staff organizations with qualified employees. The main coverage will include human resource strategy, planning, recruitment, job analysis, measurement, legal issues, and various selection methods. Attention will focus on relevant theory and research as well as techniques for developing valid and reliable selection procedures. Both the strategic needs of the organization and the legal environment of contemporary organizations in Québec and Canada will be considered.

## MANA 451 Managing a Small Business (3 credits)

Prerequisite: COMM 320 or 410 . This introductory course emphasizes the operational aspects of management that are uniquely important to a small enterprise. It provides opportunity to practise operational decision-making under conditions characteristic for small firms.

## MANA 454 Family Business Management

 (3 credits)Prerequisite: COMM 308 or FINA 315;
COMM 224 or MARK 350; COMM 225 or DESC 250; COMM 222 or MANA 340; COMM 315 or MANA 475; COMM 320 or 410; MANA 451; and 39 additional credits in Commerce and Administration. This course focuses on family business management issues such as the entrepreneurial process, the dual relationship, conflict management, letting go, succession planning in the family business, managing the transition to the next generation, going outside the family, strategic management and managing strategic change in family firms.

## MANA 461 Implementing Competitive Strategies (3 credits)

Prerequisite: COMM 401 or 310 . This course concentrates on how the strategy formulated in COMM 401 is implemented by the organization. Organization structures are studied in differing environments. The relationships between
organization structures and the organization's strategy are analysed. The problems encountered by general managers as well as middle managers in the process of the implementation of the set policies are studied. NOTE A/See §200.2

## MANA 463 Strategic Human Resource Management (3 credits)

Prerequisite: MANA 362 or 462, and any two of the following: MANA 402, 443, 444, 446. This course is a final-year integrative seminar for Human Resource Management majors. It focuses on the philosophies underlying current human resource management principles and policies and the processes of their implementation. It utilizes cases to integrate human resource management areas such as recruitment, selection, training, performance appraisal, compensation, and benefits administration.

## MANA 466 (also listed as IBUS 466) Management of Multinational Corporations ( 3 credits)

Prerequisite: IBUS 462 or MARK 462; COMM 222 or MANA 340 . This is a course that demonstrates the analytical tools of operations and organization theory applicable within a multinational company. The course is designed to give students a grasp of the problems of strategy formulation and organization, and inculcates a general knowledge of the major parameters in which an international manager operates. Focus is on the Canadian as well as other international companies based in U.S.A., Europe, Japan, etc.

NOTE: Students who have received credit for IBUS 466 may not take this course for credit.

MANA 476 Managerial Law (3 credits) Prerequisite: COMM 315 or MANA 475. Federal and provincial government regulation of business, including bankruptcy, anti-combines, trade marks and patents, labour law, insurance, special commercial contracts including secured transactions, fair employment, environmental law.

## MANA 477 The Law of Insolvency and Secured Transactions (3 credits)

Prerequisite: COMM 315 or MANA 475. An examination of the various laws and cases, both federal and provincial, across Canada, governing commercial insolvency, with particular emphasis upon the liability of directors and officers, and the creditor's rights in bankruptcy, including the role of inspectors and the trustee. An examination of the various forms of secured transactions, of which creditors may avail themselves, more particularly financial institutions, including assignment of book debts, pledge, mortgages, bonds, trust deeds.

MANA 478 Company Law (3 credits) Prerequisite: COMM 315 or MANA 475. The examination of important legal issues relating to
the business corporation, including an analysis of their legal nature and structure, and the powers, rights, and obligations of directors, officers, and shareholders, including analysis of the legal implications, insider trading, company re-organization, mergers, joint ventures, and takeovers. These matters are studied through the Federal, Québec, and Ontario Companies' Acts and relevant court cases.

MANA 479 Labour Law (3 credits)
Prerequisite: COMM 315 or MANA 475. A study of the law and relevant court cases dealing with major labour-management issues, including collective bargaining, union certification, strikes, lock-outs, grievances, and arbitration. Covers Canadian law, primarily that of Québec.

## MANA 493 (also listed as IBUS 493) International Business Law (3 credits)

Prerequisite: IBUS 462 or MARK 462;
COMM 315 or MANA 475. This course is an introduction to international business law. The focus is Canadian but comparative material is included and problems relating to other legal systems are examined. Topics to be covered include private loans applicable to international business transactions, international sales, federal regulations, export controls and anti-dumping, export insurances, and bilateral trade agreements. NOTE: Students who have received credit for IBUS 493 may not take this course for credit.

## MANA 498 Special Topics in Human Resource Management (3 credits)

Prerequisite: Written permission of the Department. This course is intended to complement and supplement human resource management (HRM) courses taken previously or concurrently. The course emphasizes HRM literature and modern thought.
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

## MANA 499 Special Topics in Management

 (3 credits)Prerequisite: Written permission of the Department. Intended to complement and supplement business courses taken previously or concurrently, this course emphasizes business literature and modern thought. Students are encouraged to work independently on research topics of interest to them. Students repeating MANA 499 register for credits under MANA 498. NOTE A/See §200.2
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

# 61.100 

 MARKETING

| Programs | 24 | Major in Marketing | 12 | Minor in Marketing |
| :---: | :---: | :---: | :---: | :---: |
|  | 3 | MARK 402 | 3 | MARK 402 |
|  | 3 | MARK 405 | 3 | MARK 405 |
|  | 3 | MARK 495 | 6 | MARK credits offered by the |
|  | 15 | MARK credits offered by the Department. |  | Department. |


| Marketing | Director <br> Co-operative <br> HAROLD J. SIMPKINS, Lecturer <br> (514) 848-2955 |
| :--- | :--- |
|  | The Marketing Co-operative program is offered to students who are enrolled in the BComm program <br> and are majoring in Marketing. The Marketing co-op is a combination of the common 42-credit core, <br> the Marketing Major and four Work terms. The program seeks to cultivate in each student the skills <br> and perspectives essential for effective and responsible marketing. Students interested in applying <br> for the Marketing co-op should refer to §24 where a full description of the admission requirements is <br> provided. |


the role of models, and the development of measurement techniques are discussed. Emphasis is placed on the nature and scope of marketing research methods for obtaining internal and external data, and on the steps and principles involved in gathering and analysing data. The student is also briefly introduced to applications of marketing research and to the technique involved in conducting a marketing study. NOTE A/See §200.2

MARK 405 Consumer Behaviour (3 credits)
Prerequisite: COMM 224 or MARK 201 or 350.
This course analyses the motivations, roles, and behaviour of the consumers, how they are affected by economic, social, and cultural influences, and how the marketer may model this behaviour for decision-making purposes. NOTE A/See §200.2
NOTE 1: Although not required, it is strongly recommended that MARK 402 be taken prior to or concurrently with this course.
NOTE 2: Students who have received credit for MARK 352 may not take this course for credit.

## MARK 453 Advertising (3 credits)

Prerequisite: COMM 224 or MARK 201 or 350. The objectives of this course are to provide the student with an introduction to an understanding of the principles of advertising from three different viewpoints: the nature of services provided by advertising agencies, the needs of the users (i.e. business, institutions) of these services, the needs of society in economic, ethical, and legal terms.
NOTE A/See §200.2

## MARK 454 Personal Selling and Sales Management (3 credits)

Prerequisite: COMM 224 or MARK 201 or 350.
This course has a dual focus: the cultivation of personal selling skills, and the theoretical and applied aspects of managing the personal selling function. Cases, readings, simulations, and presentations are deployed to achieve the course goals. NOTE A/See §200.2

## MARK 455 Direct-Response Marketing

 (3 credits)Prerequisite: COMM 224 or MARK 201 or 350.
This course explores state-of-the-art managerial apporaches and analytical techniques for developing, executing, and evaluating direct-response marketing programs. Through recent case studies, comprehensive projects, and/or empirical field research, the student will learn about strategies, offer planning and positioning, list selection and segmentation, creative strategies, data base marketing, fulfilment process, testing, media (catalogues, mail, telephone, broadcast, print, and others) and application of direct marketing to industrial settings.

## MARK 460 Integrated Marketing Communications (3 credits)

 Prerequisite: COMM 224 or MARK 201 or 350; MARK 402; 352 or 405; 453; 455 or 491Mpreviously or concurrently. This course examines the disciplines, rigours, and interrelationships involved in planning and synergistically integrating the various components of a firm's communication mix, with particular emphasis on advertising, sales promotion, public relations, personal selling, and reseller support. Students will develop an actual integrated marketing communications plan for a product, service, or idea using the concepts discussed in class.

## MARK 462 (also listed as IBUS 462) Environment of World

 Business (3 credits)Prerequisite: COMM 305 or ACCO 218;
COMM 215 or DESC 244 or equivalent; COMM 308 or FINA 214; COMM 210 or MANA 266; COMM 224 or MARK 350. This is a foundation course in international business; the objective is to present information which exposes the student to cultural, social, political, economic, legal, and financial environments in which Canadian business executives manage their operations abroad. All students are encouraged to develop their own philosophy towards international business activities by developing research and analytical skills in analysing current and long-term problems perceived in different economic systems and environments. Specific topics include empirical dimensions of world economy, economic development, international trade and investment patterns, regional economic co-operation, area studies, Canadian nationalism, and foreign investment in Canada, etc. NOTE: Students who have received credit for IBUS 462 may not take this course for credit.

MARK 463 Retailing (3 credits)
Prerequisite: COMM 224 or MARK 201 or 350. This course seeks to apply the theories of marketing and administration to the retail situation. Topics to be covered include site selection for single and multi-unit retail outlets, organizing and staffing the retail operation, the wholesaler-retailer relationship, consumer behaviour in the retail situation. The impact of such new developments as consumer cooperatives, franchising, discounting, and computer technology on the future of retailing is also considered.
NOTE A/See §200.2

## MARK 465 (also listed as IBUS 465) International Marketing Management (3 credits)

Prerequisite: COMM 224 or MARK 350; MARK 462 or IBUS 462. This course studies the management approach to international marketing, with emphasis on key variables that are controllable by the international marketing manager. Attention is focused on market measurement, product policy, channels, pricing, and promotion, with special emphasis on the development and control of multinational marketing strategies and programs. Students will execute a project directed to a selected part of the world. NOTE: Students who have received credit for IBUS 465 may not take this course for credit.

## MARK 480 Customer Service Excellence (3 credits)

Prerequisite: COMM 224 or MARK 201 or 350. This course explores the nature and scope of customer service, its importance in business, its impact on profitability, its dimensions, and how to manage it. Through field studies in given industries, the student will 1) identify examples of outstanding service and of very poor service to gain a better appreciation of customers' expectations and of their assessment of current levels of customer service delivery, 2) analyse service encounters to understand the many dimensions of customer service, 3) gather, evaluate, and improve existing measures of customer satisfaction to learn how companies should go about getting feedback about themselves, and 4) identify and evaluate current customer service training practices to understand whether companies are "paying lip service" or "walking the talking".

## MARK 485 Business-to-Business Marketing (3 credits)

Prerequisite: COMM 224 or MARK 201 or 350. The course focuses on the managerial aspects of industrial marketing. The concept of organization buying behaviour and its impact on marketing strategy formulation are discussed. Management of the industrial marketing mix considering product service development, intelligence, promotion, channels, and performance measurement is covered, both in existing product lines and new product-launch activities.

## MARK 486 Product Strategy and Innovation (3 credits)

Prerequisite: COMM 224 or MARK 201 or 350.
The focus of this course is the development of a dynamic and successful product strategy for the organization. Topics covered include product life cycle concepts, the adoption and diffusion of innovations, strategic product planning, developing the service offering, and the process of innovating and launching new products and services.

## MARK 491 Special Topics Seminar (3 credits)

Prerequisite: Written permission of the Department. This seminar is an inquiry into various selected topics which vary from year to year. Students repeating MARK 491 register for credits under MARK 492. NOTE A/See §200.2
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

## MARK 492 (also listed as IBUS 492) Cross-Cultural Communications and Management (3 credits)

Prerequisite: MARK 462 or IBUS 462. This course deals with the multicultural dimensions of international business operations. The objective is to develop Canadian managerial skills for effective performance in an international setting. Topics to be covered include international negotiations, management of multicultural personnel, cross-cultural consumer behaviour profile, cross-cultural communication, and other cultural aspects of marketing strategy. NOTE: Students who have received credit for IBUS 492 may not take this course for credit.

## MARK 495 Strategic Marketing Planning

 (3 credits)Prerequisite: Sixty credits including 15 credits in Marketing of which six credits must be MARK 402 and 405. This is a holistic, integrative, capstone course directed primarily to cultivating the skills and technique required in effective marketing planning. Various pedagogical tools including cases, readings, and a major project will be deployed to achieve the course goals. Students will develop an actual marketing plan for a product, service, or idea using the concepts and techniques studied throughout their major program.
NOTE: Students who have received credit for MARK 490 may not take this course for credit.

### 61.120 <br> ADMINISTRATION

ADMI 201 Introduction to Administration (Administered by the Finance Department) (3 credits)
This course is intended to develop a basic understanding of the role of administration in our society.
The course includes a survey of different forms of organizations, their social and legal
responsibilities, and how they function to achieve their goals.
NOTE: Commerce and Administration students may not take this course for credit.
ADMI 202 Perspective on Business (Administered by the Finance Department) (3 credits)
This course is designed to review the historical development of business (in Canada in particular) and to examine the relationships between the firm (management) and the owners, the employees, the customers, the government, and the community. Further, it studies some of the problems facing Canadian business today: the dehumanizing aspect, pollution problems, large vs. small firms, foreign ownership, competition, etc.
NOTE: Commerce and Administration students may not take this course for credit.

# 6144 PROGRAM OPTIONS FOR NON-BUSINESS STUDENTS 

## Courses/Non-Business Students

Students not enrolled in a program offered by the John Molson School of Business may register for six credits per term for a maximum of 30 credits (total) within the School of Business.
Students not registered in the John Molson School of Business, who wish to undertake any courses offered by the School, but do not have the stated prerequisites, must obtain permission in writing from the Student Request Committee, John Molson School of Business prior to registration. The Office of the Associate Dean reserves the right to deregister those students who do not adhere to academic regulations.

## CERTIFICATE IN BUSINESS STUDIES

This program is not open to students registered in a program leading to an undergraduate degree. Students may transfer into the Certificate program up to 12 credits earned in an incomplete degree or Certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.
a) Diploma of Collegial Studies or the equivalent; MATH 208, 209; ECON 201, 203; INTE 290 or COMP 201
or
b) Mature students: MATH 208, 209; ECON 201, 203; INTE 290 or COMP 201.

## Program

Admission
Requirements

Program

Program

Program

## 30 Certificate in Business Studies

24 COMM 210, 212, 215, 217, 220, 222, 224, 225
6 additional credits from the John Molson School of Business chosen in consultation with an academic adviser.

## MINOR IN BUSINESS STUDIES

This program is not open to students registered in a program leading to an undergraduate degree in the John Molson School of Business.
NOTE: A GPA of 2.50 is required for entrance into this Minor.

MATH 208, 209; ECON 201, 203; INTE 290 or COMP 201.

## 30 Minor in Business Studies

24 COMM 210, 212, 215, 217, 220, 222, 224, 225
6 additional credits from the John Molson School of Business chosen in consultation with an academic adviser.

## MARKETING ELECTIVE GROUP FOR NON-BUSINESS STUDENTS

This 15 -credit elective group is available to students registered in undergraduate programs outside the John Molson School of Business. Students choosing this elective group have the opportunity to add a business-oriented marketing component to their arts, science, engineering, or fine arts degrees.

## 15 Marketing Elective Group for Non-Business Students

9 MARK 201, 402, 405
6 Additional credits from MARK 453, 454, 455, 460, 463, 480, 485, 486
NOTE: Since non-Business students can only register for a maximum of 30 credits within the John Molson School of Business, students registered in the Minor in Business Studies, the BCompSc Information Systems Option, or the BSc Specialization in Physics/Marketing cannot register for the Marketing elective group.

THE BASICS OF BUSINESS ELECTIVE GROUP
This interdisciplinary elective group is designed for non-business students seeking insight into the exciting world of business.

15 The Basics of Business Elective Group
15 Chosen from ACCO 230, 240; ADMI 201, 202; COMM 215, 499F (Personal Finance); MANA 211, 213, 266; MARK 201
NOTE: This elective group is not open to BComm/BAdmin students. Not all elective-group credits are transferable to the BComm/BAdmin program.
NOTE: Since non-Business students can only register for a maximum of 30 credits within the John Molson School of Business, students registered in the Minor in Business Studies, the BCompSc Information Systems Option, or the BSc Specialization in Physics/Marketing cannot register for the Basics of Business elective group.

### 61.150 COMPUTER SCIENCE

For a Major in Management Information Systems see $\S 61.50$

### 61.160 SPECIAL CERTIFICATE PROGRAMS

There are many organizations within the business community designed to serve the needs of people working in specialized areas of business. These organizations recognize that the educational qualifications of those seeking membership must be continually upgraded. Therefore, they sponsor an Academic Certificate which may be obtained through correspondence courses, or through a lecture program.
The John Molson School of Business cooperates with these business organizations by permitting personnel to register as Visiting students, and to take courses leading to a certificate to be awarded by the organization concerned.
Students must comply with the University regulations regarding dates of application and Visiting Commerce student entrance requirements as outlined in the Academic Calendar §11. In addition, they must meet the requirements of the specific organization.
The credit courses taken may be applied towards the BComm degree, provided the student meets the admission requirements and wishes to transfer from Visiting Commerce status to undergraduate status after completing a Certificate program. Students are advised that they must meet the BComm curriculum requirements in force at the date of transfer.
Each Certificate program has one or more special courses required to complete the program. These courses do not carry credit towards an undergraduate degree and are designated as non-credit courses.
Students interested in the following Certificate programs may obtain details of required courses from the organization concerned:

The American Marketing Association (Montréal Chapter)
Institute of Canadian Bankers
The Insurance Institute of Canada
The Trust Companies Institute of Canada
Professional Secretaries International (CPS)
Canadian Institute of Management

### 61.170 SPECIAL PROGRAMS IN ACCOUNTANCY

The three professional organizations listed below recognize certain Concordia University courses for course exemptions or standing in their professional designation programs.

## L'ORDRE DES COMPTABLES AGRÉÉS DU QUÉBEC: Chartered Accountant (CA)

The John Molson School of Business offers a Diploma in Accountancy which has been accredited by the Order of Chartered Accountants of Québec. Entry into the program normally requires an undergraduate degree in Commerce, and a Major in Accountancy with high academic standing. Applicants lacking an appropriate pattern of undergraduate work will be required to successfully complete certain qualifying courses, as assigned by the director of the program and the Order of Chartered Accountants of Québec. For further details, refer to the Graduate Calendar of Concordia's School of Graduate Studies.

## L'ORDRE DES COMPTABLES EN MANAGEMENT ACCRÉDITÉS DU QUÉBEC:

## Certified Management Accountant (CMA)

Students who wish to follow the CMA program must register with L'Ordre des comptables en management accrédités du Québec, 715 Square Victoria $3^{\text {rd }}$ Floor, Montréal, Québec, H2Y 2H7, (514) 849-1155 / (800) 263-5390. The list of courses comprising the CMA program is shown below:

ECON 201 or cégep equivalent*
ECON 203 or cégep equivalent*
COMM 210
COMM 212

Introduction to Microeconomics Introduction to Macroeconomics Contemporary Business Thinking Business Communication

| COMM 215 | Business Statistics |
| :--- | :--- |
| COMM 217 | Financial Accounting |
| COMM 220 | Analysis of Markets |
| COMM 222 | Organizational Behaviour and Theory |
| COMM 224 | Marketing Management |
| COMM 225 | Production and Operations Management |
| COMM 301 | Management Information Systems |
| COMM 305 | Managerial Accunting |
| COMM 308 | Introduction to Finance |
| COMM 315 | Business Law and Ethics |
| COMM 320 | Entrepreneurship |
| COMM 401 | Strategy and Competition |
| ACCO 310 | Intermediate Accounting I |
| ACCO 320 | Intermediate Accounting II |
| ACCO 330 | Cost and Management Accounting |
| ACCO 340 | Income Taxation in Canada |
| ACCO 350 | Accounting Information Systems |
| ACCO 400 | Accounting Theory |
| ACCO 410 | Governmental and Not-for-Profit Accounting |
| ACCO 420 | Advanced Financial Accounting |
| ACCO 430 | Advanced Management Accounting |
| ACCO 450 | Financial Auditing |
| ACCO 470 A | Special Topics in Accounting: |
| IBUS 462 or MARK 462 | Management Accounting |
|  | Environment of World Business |

*Students who have not taken the equivalent of ECON 201 and 203 at the cégep level must take these two courses as restricted electives.

## NOTES:

1. This equivalence table is subject to amendment by the Ordre.
2. Students taking University courses must satisfy the necessary prerequisite courses.
3. The Entrance Examination of the Society of Management Accountants of Canada is mandatory. Coaching seminars for these courses are encouraged prior to writing the Entrance Examination. A student may not sit for this examination until all other Corporation courses or their equivalents have been successfully completed.
4. Prospective CMA students should note that the above sequence of courses is a prerequisite to the CMA program, which commences with an Entrance Examination (held in June each year). It is necessary to sit the Entrance Examination in order to take part in a 24-month Strategic Leadership Program. The Program consists of work experience, independent study, group and residential sessions. All candidates for the Entrance Examination must be registered student members of the Ordre.

## L'ORDRE DES CGA DU QUEBEC: Certified General Accountant (CGA)

Students who wish to follow the CGA program must register with L'Ordre des CGA du Québec located at 445 boulevard St-Laurent Bureau 450, Montréal, Québec, H2Y 2Y7, (514) 861-1823, Web site: www.cga-quebec.org.

The list of courses comprising the CGA Academic Program is shown below:
ECON 201 or cégep equivalent* Introduction to Microeconomics
ECON 203 or cégep equivalent* Introduction to Macroeconomics
COMM 215
COMM 217
COMM 220 (3) (6)
COMM 301
COMM 305
COMM 308 (3) (6)
COMM 315
COMM 401
ACCO 310
Business Statistics
Financial Accounting
Analysis of Markets
Management Information Systems
Managerial Accounting
Introduction to Finance
Business Law and Ethics
Strategy and Competition
Intermediate Accounting I
Intermediate Accounting II
Cost and Management Accounting
ACCO 330
Income Taxation in Canada
ACCO 340 (4) (6)
Accounting Information Systems
ACCO 350
Accounting Theory

ACCO 410 (1) (6)
ACCO 420 (1) (6)
ACCO 440 (4) (6)
ACCO 450 (2) (5) (6)
ACCO 460 (5)
ACCO 470D (2)
ACCO 490 (4)

Governmental and Not-for-Profit Accounting
Advanced Financial Accounting
Advanced Taxation
Financial Auditing
Operational Auditing
Special Topics in Accounting
(Advanced Auditing)
Seminar in Taxation
*Students who have not taken the equivalent of ECON 201 and 203 at the cégep level must take these two courses as restricted electives.
(1) Prerequisite to the Financial Accounting (FA4) examination
(2) Prerequisite to the Auditing 2 (AU2) examination
(3) Prerequisite to the Finance 2 (FN2) examination and professional certification program in Financial Performance
(4) Prerequisite to the Taxation 2 (TX2) examination
(5) Prerequisite to the Management Auditing 1 (MU1) examination
(6) Prerequisite to Professional Applications (PA-1) examination

NOTE: The listing above is subject to amendment. Please communicate with the CGA - Québec Ordre.

## FACULTY OF ENGINEERING AND COMPUTER SCIENCE

| 71.10 | FACULTY OF ENGINEERING AND COMPUTER SCIENCE |  |
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| 71.30 | DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING |  |
|  | 71.30 .1 | Course Requirements (BEng in Electrical Engineering) |
|  | 71.30 .2 | Course Requirements (BEng in Computer Engineering) |
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| 71.40 | DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING |  |
|  | 71.40.1 | Course Requirements (BEng in Mechanical Engineering) |
|  | 71.40 .2 | Course Requirements (BEng in Industrial Engineering) |
|  | 71.40 .3 | The Co-operative Format |
| 71.50 | DEPARTMENT OF BUILDING, CIVIL AND ENVIRONMENTAL ENGINEERING |  |
|  | 71.50.1 | Course Requirements (BEng in Building Engineering) |
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|  | 71.50 .3 | The Co-operative Format |
| 71.60 | ENGINEERING COURSE DESCRIPTIONS |  |
| 71.70 | DEPARTMENT OF COMPUTER SCIENCE |  |
|  | 71.70 .1 | Curriculum for the Degree of BCompSc |
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|  | 71.70 .5 | Minor in Computer Science |
|  | 71.70 .6 | Programs Related to Computer Science |
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|  | 71.70 .8 | Curriculum for the Degree of BEng in Software Engineering |
|  | 71.70 .9 | Degree Requirements for the BEng in Software Engineering |
|  | 71.70 .10 | The Co-operative Format |
|  | 71.70.11 | Course Descriptions |
| 71.80 | DIGITAL | IMAGE/SOUND AND COMPUTER SCIENCE |

## 71 <br> FACULTY OF ENGINEERING AND COMPUTER SCIENCE

## Dean

M. NABIL ESMAIL

Associate Dean, Undergraduate Programs and Student Affairs
KHASHAYAR KHORASANI
Associate Dean, Graduate Programs and Research
GEORGIOS H. VATISTAS
Associate Dean, Special Projects
TERRILL FANCOTT
Associate Dean, External Affairs
LOUISE QUESNEL

Chair, Department of Electrical and Computer
Engineering
M. OMAIR AHMAD

Chair, Department of Mechanical and Industrial
Engineering
RAMA B. BHAT
Chair, Department of Building, Civil and
Environmental Engineering
OSAMA MOSELHI
Chair, Department of Computer Science
THIRUVENGADAM RADHAKRISHNAN

| Location | Sir George Williams Campus <br> J.W. McConnell Building, Room: LB 1001; (514) 848-3109 <br> Student Affairs, Room LB 1020-3; (514) 848-3056 |
| :--- | :--- |
| Objectives | By dedicating itself to program excellence, the Faculty seeks to prepare its graduates not only to <br> practice their professions well into the twenty-first century but also to participate, in national and <br> international affairs, as good citizens with a social conscience. It is equally dedicated to the <br> advancement of knowledge through research and graduate education, and to the development of <br> the professions of engineering and computer science. The Faculty strives to provide an environment <br> of equal opportunity, collegiality, and lively intellectual debate for all members of its community. |

### 71.10 FACULTY OF ENGINEERING AND COMPUTER SCIENCE

The following programs are offered in the Faculty of Engineering and Computer Science:
71.10.1

Programs Offered

1. BEng degrees in Building, Civil, Computer, Electrical, Industrial, Mechanical, and Software Engineering.
2. BCompSc degree.
3. Minor in Computer Science.

The requirements for the programs are different, and the appropriate section in the following pages must be consulted for each.

General admission requirements are listed in §13.
In addition, the following specific requirements exist for the various programs. Applicants should specify their choice of program on their application.
Students entering the Faculty of Engineering and Computer Science are presumed to have acquired some familiarity with computers and programming, either through a course or through time spent working with a personal or other computer.

## APPLICANTS FROM QUÉBEC INSTITUTIONS

Successful completion of a two-year pre-university cégep program is required, including the specific courses in the appropriate profile, as follows:

1. BEng (all programs)

BCompSc (Computer Systems and
Software Systems Options)
Cégep Profile
Mathematics 201 -
103 or NYA, 105 or NYC, 203 or NYB

Physics 203 -
101 or NYA, 201 or NYB, 301 or NYC
(see Note 1)
Chemistry 202 -
101 or NYA
Note 1: Physics 301 or NYC is only
required for Electrical, Computer, and
Software Engineering
2. BCompSc (Information Systems and Computer Applications Options; and Minor in Computer Science)

Cégep Profile 10.12
Mathematics 201 -
103 or NYA, 105 or NYC, 203 or NYB
Applications from graduates of cégep technology programs will also be considered. Program requirements for successful applicants will be determined on an individual basis.

## APPLICANTS FROM OUTSIDE QUÉBEC

Academic qualifications presented by students applying from institutions outside Québec should be comparable to those expected of students applying from within Québec.
Where the pre-university education is shorter than in Québec, students may be considered for admission to the first year of the Extended Credit Program. (See §13.3.2 to 13.3.6, §71.20.2, and 71.70.3)

## MATURE ENTRY

Admission requirements are listed in §14.

Students should refer to the Academic Regulations of the University in §16.

## Definitions

Assessable courses: all record entries of courses listed in this Concordia Calendar for which a grade point value is specified in $\S 16.3$.3. However, any course which is a requirement for admission to a program offered by the Faculty of Engineering and Computer Science will not be counted unless specifically listed on the student's admission letter.
Dean's Office: appropriate member of the Dean's Office, normally the Associate Dean, Student Affairs. Program of Study: course requirements in effect at the time of the latest admission or readmission to a program, for example, BEng (Civil) or BCompSc (Information Systems), including modifications on an individual basis as specified or approved in writing by the Dean's Office, or the Student Request Committee of Faculty Council.
Grade Points: as defined in $\S 16.3 .3$ of this Calendar.
Weighted Grade Point Average (WGPA): as defined in $\S 16.3 .10$ of this Calendar.
Academic year: a period which begins with a Summer Session followed by a Regular Session (Fall and Winter).

## Objectives

The objectives of these regulations are:
a) to ensure that the Faculty can certify that all of its graduates are qualified to enter their profession, and
b) to ensure that students can, with the assistance or intervention of the Faculty, assess themselves objectively and plan programs of study designed to meet their individual needs.

## Grading System

See §16.3.3 for the Concordia grading system.
NOTE: Although a "C-" grade is designated as Satisfactory, a weighted grade point average of 2.00 is required for acceptable standing in the Faculty of Engineering and Computer Science.

## Regulations

1. Students' standings are assessed at the end of each academic year providing they have registered for at least 12 credits subsequent to their previous assessment, or in the case of a first assessment, subsequent to their admission to a program of study. Standings of students who have attempted less than 12 credits since their last assessment are assessed as follows:
a) The standings of potential graduates are determined on the basis that these credits constitute an extension of the last assessment period.
b) The standings of other students are determined at the end of the academic year in which they have attempted a total of at least 12 credits since their last assessment.
2. Students' standings are determined according to the following criteria.

## Acceptable Standing:

A WGPA of at least 2.00 for the assessment period.
Students in acceptable standing may proceed subject to the following conditions: any failing grade must be cleared by repeating and passing the failed course or in the case of an elective, by replacing the failed course by an alternative within the same group of electives and passing this course. Any variation must be approved by the Dean's Office.

## Conditional Standing:

A WGPA of at least 1.50 but less than 2.00 for the assessment period.
Students in conditional standing may proceed subject to the following conditions.
a) They must successfully repeat all courses in which failing grades were obtained, or replace them by alternatives approved by the appropriate member of the Dean's Office in consultation with the student's Department.
b) They must repeat or replace by approved alternatives at least one-half of those courses in which they obtained grades in the "D" range. The specific courses to be repeated will be determined by the Dean's Office in consultation with the student's Department.
c) Courses to be taken may be specified by the Dean's Office. In no case will the number exceed five per term for full-time students and two per term for part-time students.
d) They must obtain acceptable standing at the time of their next assessment.

## Failed Standing:

Failure to meet the criteria for acceptable or conditional standing, or conditional standing over two consecutive assessments.
Failed students are subject to the following regulations.

1. Failed students who are not subject to regulation 2 below may apply for readmission through the Dean's Office of the Faculty to which they wish to be readmitted. If readmitted, they will be placed on academic probation. They must return to acceptable standing at the time of their next assessment. Other conditions will be determined at the time of readmission.
2. Students who are in failed standing for a second time will be dismissed from the University. In subsequent years, should they wish to return to university studies, they must contact the Office of the Registrar for information concerning conditions and procedures for seeking admission. Applications will not normally be considered before a five-year absence from the program. Decisions of the relevant authority in the Faculty to which application is made are final.

## Availability of Supplemental Examinations

Supplemental examinations are not offered in the Faculty of Engineering and Computer Science other than in the courses COMP 201 and COMP 218.

1. Students in the Faculty of Engineering and Computer Science who have been absent from their program for six consecutive terms or more will be officially withdrawn from their program by the Faculty and must submit a new application for admission through the Office of the Registrar.
2. The maximum regular session course load for full-time students in the regular programs is three more than one-third of the total credits for their particular option as specified in subsequent sections.
3. The maximum regular session course load for full-time students in the Extended Credit and Mature Student programs is 30 credits until they have completed all the courses required beyond those specified for their particular option in subsequent sections.
4. The fall- and winter-term course loads of full-time students may be unbalanced by up to three credits without permission; further differences between the two terms require the permission of the Dean's Office.
5. Except for students registered for the co-operative format, the maximum load in a Summer Session is eight credits, with no more than four and a half credits in either of its terms.

Students must satisfy all program requirements and be in acceptable standing. The standings of potential graduates who have attempted less than 12 credits since their last assessment are determined on the basis that these credits constitute an extension of the last assessment period. Students who fail to meet acceptable standing but meet conditional standing will have the following options:
a) register for 12 credits and meet the criteria for acceptable standing;
b) register for fewer than 12 credits. In this case, standing will be determined on the basis that these credits constitute an extension of the last assessment period.
The maximum number of credits obtained as an Independent student which may be transferred into programs offered by the Faculty of Engineering and Computer Science is as follows:

BEng and BCompSc: 30

Full-time students in the Engineering program normally follow an eight-term sequence. In general, introductory level courses are offered in both day and evening. Subject to the Registration Regulations in $\S 71.10 .4$ above, a student may register on a part-time basis. Further information on sequencing may be found in the Undergraduate Program Guide issued by the Dean's Office.

Availability of
Programs

The Undergraduate Program Guide specifies course sequences for the BEng and BCompSc programs, including their Mature Entry and Extended Credit programs.
71.10 .8

The Co-operative
Format

A limited number of high ranking students entering the first year of the regular program leading to the BCompSc degree and the BEng degree are permitted to undertake their studies in the co-operative format in conjunction with the Institute for Co-operative Education. See §24.
The academic content is identical to that of the regular programs; however, in order to continue their studies in the co-operative format in the Faculty of Engineering and Computer Science, or to graduate from one of its programs as Members of the Institute for Co-operative Education, students must:
(i) maintain a cumulative grade point average (CGPA)* of at least 2.70 after their first year of study in their program with no single term below 2.50 ;
(ii) be assigned a pass for each work term report.

For additional information, please refer to §24.
*The CGPA is calculated over all courses attempted since admission to the program in the manner described in §16.3.10 for the WGPA.
71.20 .1

Curriculum for the
Degree of BEng
71.20 .2

Extended Credit
Program
71.20 .3

Accreditation by the
Canadian Council of
Professional
Engineers

### 71.20 BENG

The University offers programs leading to the degree of BEng in the fields of Building, Civil, Computer, Electrical, Industrial, Mechanical, and Software Engineering. Students enrolled in the BEng program in Building Engineering may, after the completion of all but one of their 200- and 300-level courses, apply through the Dean's Office to enter a combined degree program leading to the joint award of an undergraduate and a graduate degree in this field.
The BEng degree requires completion of a minimum of 119.25 to 120 credits depending on the program chosen. Program requirements comprise a group of required courses with a group of elective courses which allow students to select part of their program to provide some depth in an area of specialization (their "Option") according to their particular interests, or breadth in the general field of their chosen discipline.
Students must have completed all 200 -level courses required for their program before they can register for any 400 -level courses. Students who fail a fall-term 200-level course which is inherent to their discipline are required to repeat it in the immediate subsequent Winter Term. In addition, students obtaining grades in the "D" range for such courses may choose to repeat them. Students in Engineering programs may not combine their program with a Minor or Cluster from another field of study. Any exception to this policy must be approved by the Faculty's Student Request Committee.
In their final undergraduate year, students with high standing may apply for permission through the Dean's Office to register for a limited number of graduate courses offered by the Faculty in lieu of some courses in the undergraduate program.
Successful completion of a BEng program requires hard work and considerable dedication on the part of each student. Courses are presented with the expectation of an average of about two hours of "outside" work for each lecture hour and about one-half hour of "outside" work for each hour spent in the laboratory for all programs of study.

Students admitted to an Extended Credit Program under the provisions of $\$ 13.3 .2$ or 13.8.1 must successfully complete the requirements of a specific program, as set out in $\S 71.30$ to 71.50 , plus the following courses:
a) Building, Civil, Industrial, Mechanical, and Software Engineering:

MATH $202^{3}, 203^{3}, 204^{3}, 205^{3}$
PHYS 204 ${ }^{3}$, 205 ${ }^{3}$, 224 ${ }^{1}, 225^{1}$
CHEM $205^{3}$
COMP $201^{3}$
Six credits chosen from courses in the humanities and social sciences. ESL courses and
courses that focus on the acquisition of a language may not be used to meet this requirement.
b) Electrical and Computer Engineering:

The courses specified in a), plus PHYS $206^{3}$

All Engineering programs in the Faculty have been designed to meet the criteria of the Canadian Engineering Accreditation Board. These programs are assessed at regular intervals according to the rules and procedures of the Board. Graduates of accredited programs are qualified for membership in the Order of Engineers of Québec, or its equivalent in any other provincial jurisdiction.
71.20 .4

Membership in the Order of Engineers of Québec

The Ordre des ingénieurs du Québec (O.I.Q.) currently admits graduates of the BEng curricula in Building, Civil, Computer, Electrical, Industrial, Mechanical, and Software Engineering, as members. Québec law requires that candidates seeking admission to provincially recognized Québec professional corporations (such as the Ordre des ingénieurs du Québec) possess an appropriate knowledge of the French language.
A person is deemed to have that knowledge who:
(1) has taken at least three years of full-time instruction given in French at the secondary or postsecondary level;
(2) has passed the French mother tongue examinations in the fourth or fifth grade of the secondary level;
(3) has obtained in Québec, a secondary school certificate for the 1985-86 school year or later. In all other cases, a person must obtain a certificate delivered by the Office de la langue française or hold a certificate defined as equivalent by regulation of the Government.
Candidates may obtain a certificate by passing a test prescribed by the Office de la langue française. Information on this testing program of the Office de la langue française may be obtained by writing to: Office de la langue française, 800 Place Victoria, $13^{e}$ étage, C.P. 316, Montréal, Québec, H4Z 1G8, (514) 873-8361.

To be recommended for the degree of BEng, students must satisfactorily complete the courses of the Engineering Core as well as those specified for their particular program in subsequent sections in accordance with the graduation requirements in §71.10.5.

Engineering Core Credits
EMAT 213 Ordinary Differential Equations 3.00
EMAT 233 Advanced Calculus 3.00
ENCS 282 Technical Writing and Communication 3.00
ENGR 201 Professional Practice and Responsibility 1.50
ENGR 202 Sustainable Development and Environmental Stewardship 1.50 (1)
ENGR 275 Principles of Electrical Engineering 3.75 (2)
ENGR 301 Engineering Management Principles and Economics 3.00
ENGR 371 Probability and Statistics in Engineering 3.00
ENGR $391 \quad$ Numerical Methods in Engineering 3.00 (3)
ENGR 492 Impact of Technology on Society 3.00
General Education elective 3.00
30.75

NOTES:
(1) Students in Building Engineering are not required to take this course since its content is introduced in several other courses in their program.
(2) Students in Electrical and Computer Engineering shall replace ENGR 275 with ELEC 273.
(3) Students in Software Engineering may replace ENGR 391 with COMP 361 and must also take two Basic Science courses as indicated in §71.70.9 for a total of 36.75 credits.

Students must select three General Education elective credits from the General Education List in §71.20.6. Students in Building Engineering shall replace ENGR 492 with BLDG 481. Students in Civil and Industrial Engineering shall take ACCO 220 as their General Education elective.

The professional engineer requires, in addition to technical knowledge and skills, an understanding of society, its infrastructure and needs to promote safety and preservation of the environment. Complementary Studies include courses in the areas of economics and management; engineering law to respect the responsibilities and ethical principles arising from the Code of Professions as well as safety; effective communication skills to improve the ability of the student to organize and express his/her thoughts; and courses in social sciences and humanities to appreciate the central issues, methodologies, and thought processes in these areas.
The following are prescribed electives in General Education:

## General Education List

Students may take any course at the 200- or 300-level in the following disciplines:

| Anthropology | ANTH or ANTZ |
| :--- | :--- |
| Art History | ARTH |
| Classics | CLAS or CLAZ, with the exception of CLAS 280 and 290 |
| Economics | ECON |
| English | ENGZ, or ENGL 230 or above |
| French Literature | FLIT or FLIZ |


| Film Studies | FMST |
| :--- | :--- |
| Geography | GEOZ only |
| History | HIST or HISZ |
| Philosophy | PHIL or PHIZ |
| Political Science | POLI or POLZ |
| Religion | RELI or RELZ |
| Science and Human Affairs | SCHA |
| School of Community and  <br> Public Affairs  <br> Sociology SCPA or SCPZ <br> Theology SOCI, with the exception of SOCI 212 or 213 <br> Women's Studies THEO or THEZ <br>  WSDB or WSDZ$\$=1$ |  |

Students may also choose from the following courses:
ADMI 201 Introduction to Administration
ADMI $202 \quad$ Perspective on Business
COMZ 360 Mass Communication
EDUZ 230 Introduction to Philosophy of Education
MANA 213 Foundations of Behaviour
MANA 266 Foundations of Modern Management
MARK 201 Introduction to Marketing
URBS 230 Urban Development
Please note the following:

1) Prior to registering, students who do not have any specified prerequisites for a general elective must obtain permission of the relevant department.
2) ESL courses or introductory courses that deal with the acquisition of a language will not be considered as substitutions for this requirement.
3) Should students take a general elective course in a discipline not listed above, they must receive written permission from the Student Affairs Office of the Faculty of Engineering and Computer Science prior to taking the course.
71.20 .7

Writing Skills
Requirement

The Faculty of Engineering and Computer Science is committed to ensuring that its students possess good writing skills. Hence, every student in an undergraduate degree program is required to demonstrate competence in writing English or French prior to graduation.
All students admitted to the Faculty of Engineering and Computer Science as of September 2001 must meet the writing skills requirement by satisfying the requirements outlined in §16.2.4 (University Writing Test).
If a student has satisfied the writing skills requirement prior to September 2001, or prior to transferring to the Faculty of Engineering and Computer Science, that student is deemed to have satisfied the writing skills requirement.
Newly admitted students are strongly encouraged to meet the requirement very early in their program (Fall Term of first year for students starting in September or Winter Term of first year for students starting in January) to avoid the risk of delayed graduation should remedial work prove necessary. Students who are required to take ESL courses should meet the writing skills requirements in the semester following completion of their ESL courses.

##  and computer engineering

| Faculty | Chair |
| :---: | :---: |
|  | M. OMAIR AHMAD, Professor |
|  | Professors |
|  | ASIM J. AL-KHALILI |
|  | RACHIDA DSSOULI |
|  | AHMED K. ELHAKEEM |
|  | KHASHAYAR KHORASANI |
|  | MUSTAFA K. MEHMET ALI |
|  | EUGENE I. PLOTKIN |
|  | VENKATANARAYANA RAMACHANDRAN |
|  | ABDEL R. SEBAK |
|  | CHRISTOPHER W. TRUEMAN |
|  | Research Professor |
|  | M.N.S. SWAMY |
|  | Distinguished Professors Emeriti |
|  | JEREMIAH F. HAYES |
|  | STANLEY J. KUBINA |
|  | Professors Emeriti |
|  | J. CHARLES GIGUÈRE |
|  | OTTO SCHWELB |
|  | Associate Professors |
|  | ABDESLAM EN-NOUAARY |
|  | MOJTABA KHARIZI |
|  | FERHAT KHENDEK |
|  | LESLIE M. LANDSBERGER |
|  | LUIZ A. LOPES |
|  | WILLIAM E. LYNCH |
|  | ROBERT PAKNYS |
|  | RABIN RAUT |
|  | VICTOR ROSSOKHATY |
|  | YOUSEF R. SHAYAN |
|  | MOHAMMED REZA SOLEYMANI |
|  | SOFIĖNE TAHAR |
|  | CHUNYAN WANG |
|  | WEIPING ZHU |

Assistant Professors<br>ANJALI AGARWAL<br>AMIR G. AGHDAM<br>OTMANE AIT MOHAMED<br>AISHY AMER<br>ALI GHRAYEB<br>PEYMAN GOHARI-MOGHADAM<br>WALAA HAMOUDA<br>SHAHIN HASHTRUDI ZAD<br>NAWWAF N. KHARMA<br>SKANDER M. KORT<br>MOHAMED NEKILI<br>KATARZYNA RADECKA<br>PURNENDU SINHA<br>XIAOFENG WANG<br>JOHN X. ZHANG<br>Lecturer<br>ROCCO DI GIROLAMO<br>Professional and Industrial Adjunct Professor mUMTAZ B. GAWARGY<br>Adjunct Professors<br>DHAMIN AL-KHALILI<br>PRAVEEN K. JAIN<br>GEZA JOOS<br>THO LE-NGOC<br>JOHN LODGE<br>VIJAY SOOD<br>Adjunct Associate Professors<br>CHRISTIAN S. GARGOUR<br>PAUL SCOTT GUINAND<br>FAYEZ HYJAZIE<br>MICHEL KADOCH<br>RONGGANG QI<br>JIAJUN ZHANG<br>Adjunct Assistant Professors<br>RAJEEV AGARWAL<br>YASSINE MOKHTARI

| Location | Sir George Williams Campus <br> Hall Building, Room: H 961 <br> (514) 848-3100 |
| :--- | :--- |
| Department | Electrical Engineering is concerned primarily with energy and information, their conversion and <br> Objectives <br> transmission in the most efficient and reliable manner. This vast field of endeavour includes many <br> specialties and Electrical Engineers may be involved in one or more of these throughout their <br> careers. A partial list includes: electronics, integrated circuit design, very large scale integrated <br> (VLSI) circuit design, layout and testing, controls, robotics, system simulation, telecommunications, <br> signal processing, computer hardware design, software design, power devices, power and control <br> systems, electromechanical systems, microelectromechanical devices, electromagnetics, antennas, <br> wave guides, lasers, and optoelectronics. <br> Computer Engineering is the driving force of the information revolution and its transformation of <br> society. Over the course of their careers, computer engineers will be called upon to meet a number <br> of challenges, most of which cannot be imagined today. A partial list of current specialties includes: <br> computer architecture, digital electronics, digital circuits, very large scale integrated (VLSI) circuit |

design, layout and testing, digital circuit testing and reliability, software design, software engineering, digital communication and computer networks.
The four-year programs consist of the Engineering Core, taken by all engineering students, program cores and electives. The Electrical Engineering Core provides a solid introduction to all aspects of the discipline, to programming methodology and to the design of large software systems. Technical electives are scheduled to enable students to register for sets of related technical courses. Current sets of electives include: Communications and Signal Processing, Computer Systems, Electronics and VLSI, Power and Control Systems, and Waves and Electromagnetics. The Computer Engineering Core provides a thorough grounding in all aspects of computer hardware and software. Technical electives allow students to acquire further knowledge in various aspects of hardware or software. A mandatory final-year design project gives students in both programs the opportunity to apply the knowledge they have acquired to the design and testing of a working prototype.
Six Québec universities have joined together with Hydro-Québec to create the Institute for Electrical Power Engineering whose primary mission is to meet the anticipated shortfall in this area. Students accepted by the Institute are expected to complete six courses offered by participating universities. Some of these courses are offered in English and others in French. Students register for courses at their home universities.
The University also participates in another inter-university initiative, the International Institute for Telecommunications (IIT). Each institute contributes to the education of students in Electrical Engineering and is responsible for informing students concerning mechanisms for participation in their activities. In each case, students must be enrolled in the proper option within the BEng Electrical Engineering program and should be guided by the relevant institute in their choice of electives. Both programs involve an extensive amount of personal computing. Students are encouraged to acquire personal computers with Pentium ${ }^{\top \mathrm{M}}$ or equivalent processors. Information concerning Québec government loans for the purchase of computers is available from Concordia's Financial Aid and Awards Office.

### 71.30 .1

Course Requirements
(BEng in Electrical
Engineering)

The program in Electrical Engineering consists of the Engineering Core, the Electrical Engineering Core, and one of two options as set out below. The normal length of the program is 120 credits.

Engineering Core ( 30.75 credits)
See §71.20.5.

| Electrical Engineering Core |  | Credits |
| :---: | :---: | :---: |
| COEN 231 | Introduction to Discrete Mathematics | 3.00 |
| COEN 243 | Programming Methodology I | 3.00 |
| COEN 244 | Programming Methodology II | 3.00 |
| COEN 311 | Computer Organization and Software | 3.00 |
| COEN 312 | Digital Systems Design I | 3.75 |
| COMP 352 | Data Structures and Algorithms | 3.00 |
| ELEC 251 | Fundamentals of Applied Electromagnetics | 3.00 |
| ELEC 261 | Complex Variables for Electrical and Computer Engineers | 3.00 |
| ELEC 311 | Electronics I | 4.50 |
| ELEC 321 | Introduction to Semiconductor Materials and Devices | 3.50 |
| ELEC 331 | Fundamentals of Electrical Power Engineering | 3.75 |
| ELEC 351 | Electromagnetic Waves and Guiding Structures | 3.00 |
| ELEC 361 | Signals and Systems | 3.00 |
| ELEC 362 | Vector Calculus and Partial Differential Equations | 3.00 |
| ELEC 370 | Modelling and Analysis of Physical Systems | 3.75 |
| ELEC 372 | Fundamentals of Control Systems | 3.75 |
| ELEC 461 | Fundamentals of Telecommunications Systems | 3.75 |
| ELEC 490 | Electrical Engineering Project | 4.00 |
|  |  | $\overline{60.75}$ |
| Telecommunications Option |  | Credits |
| ELEC 462 | Digital Transmission Systems | 3.75 |
| ELEC 463 | Telecommunication Networks | 3.00 |
| ELEC 471 | Random Processes | 3.00 |
|  | Elective credits chosen from list below | 18.75 |
|  |  | 28.50 |
| COEN 320 | Introduction to Real-Time Systems | 3.00 |
| COMP 346 | Operating Systems | 4.00 |
| ELEC 442 | Introduction to Digital Signal Processing | 3.75 |
| ELEC 453 | Microwave Engineering | 3.75 |


| ELEC 456 | Antennas | 3.00 |
| :--- | :--- | :--- |
| ELEC 457 | Design of Wireless RF Systems | 3.00 |
| ELEC 464 | Communications Systems Engineering | 3.75 |
| ELEC 465 | Networks Security and Management | 3.75 |
| ELEC 472 | Performance Evaluation of Telecommunication Systems | 3.50 |
| ELEC 473 | Overview of Communications Systems* | 3.75 |
| ENGR 411 | Special Technical Report | 1.00 |

*Note: Registration in ELEC 473 is limited to those students accepted by the International Institute for Telecommunications (IIT). Such students should consult the IIT as to their choice of electives.

| Electronics/Systems Option* | Credits |  |
| :--- | :--- | :---: |
| COEN 315 | Digital Electronics | 3.75 |
| ELEC 312 | Electronics II | 4.50 |
| ELEC 442 | Introduction to Digital Signal Processing | 3.75 |
|  | Elective credits chosen from lists below | $\underline{16.50}$ |
|  |  | $\underline{28.50}$ |

*Note: Six Québec universities have joined together with Hydro-Québec to create the Institute for Electrical Power Engineering whose primary mission is to meet the anticipated shortfall in this area. Students accepted by the Institute are expected to complete six courses offered by participating universities. Some of these courses are offered in English and others in French. Students register for courses at their home universities. Students accepted by the Institute for Electrical Power Engineering will take two of the three courses listed above and the following six required courses: ELEC 430, 431, $432,433,435,438$, resulting in a total of 21.75 elective credits and a total minimum of 29.25 credits instead of 28.5 credits.

## Electronics/Systems Electives

| Courses are listed in groups to facilitate course selection. | Credits |  |
| :--- | :--- | :---: |
|  |  | 3.00 |
| ELEC 498 | Topics in Electrical Engineering | 3.00 |
| MANA 266 | Foundations of Modern Management | 1.00 |


| A. Communications and Signal Processing | Credits |  |
| :--- | :--- | :---: |
| ELEC 441 | Analog Filter Design | 3.75 |
| ELEC 462 | Digital Transmission Systems | 3.75 |
| ELEC 463 | Telecommunication Networks | 3.00 |
| ELEC 464 | Communications Systems Engineering | 3.75 |
| ELEC 465 | Networks Security and Management | 3.75 |
| ELEC 471 | Random Processes | 3.00 |
| ELEC 472 | Performance Evaluation of Telecommunication Systems | 3.50 |

B. Computer Systems Credits

| COEN 313 | Digital Systems Design II | 3.75 |
| :--- | :--- | :--- |
| COEN 316 | Computer Architecture and Design | 3.00 |
| COEN 320 | Introduction to Real-Time Systems | 3.00 |
| COEN 345 | Software Testing and Validation | 4.00 |
| COEN 417 | Microprocessor Systems | 4.50 |
| COEN 421 | Embedded Systems and Software Design | 4.50 |
| COMP 346 | Operating Systems | 4.00 |
| SOEN 341 | Software Process | 3.00 |
| SOEN 342 | Software Requirements and Specifications | 3.00 |
| SOEN 343 | Software Design | 3.00 |

C. Electronics/VLSI Credits
COEN 451 VLSI Design I 4.00
COEN 452 VLSI Design II 4.00

ELEC $411 \quad$ Pulse and Waveform Generation 3.75
ELEC 421 Solid State Devices 3.75
ELEC $422 \quad$ Design of Integrated Circuit Components 3.75
ELEC $424 \quad$ VLSI Process Technology $\quad 3.75$

| D. Power and Control Systems |  | Credits |
| :---: | :---: | :---: |
| ELEC 430 | Appareillage électrique* | 3.75 |
| ELEC 431 | Electrical Power Systems | 3.75 |
| ELEC 432 | Control of Electrical Power Conversion Systems | 3.75 |
| ELEC 433 | Power Electronics | 3.75 |
| ELEC 435 | Electromechanical Energy Conversion Systems | 3.00 |
| ELEC 438 | Électricité industrielle* | 3.75 |
| ELEC 481 | Linear Systems | 3.75 |
| ELEC 482 | System Optimization | 3.75 |
| ENCS 245 | Mechanical Analysis | 3.00 |
| ENCS 472 | Robot Manipulators | 3.75 |
| ENGR 473 | Control System Design | 3.50 |
| *Note: ELEC 430 and 438 are offered in the French language. |  |  |
| E. Waves and Electromagnetics |  | Credits |
| ELEC 453 | Microwave Engineering | 3.75 |
| ELEC 454 | Optical Electronics | 3.75 |
| ELEC 455 | Acoustics | 3.00 |
| ELEC 456 | Antennas | 3.00 |
| ELEC 457 | Design of Wireless RF Systems | 3.00 |

71.30 .2
Course Requirements
(BEng in Computer
Engineering)

The program in Computer Engineering consists of the Engineering Core, the Computer Engineering Core, and one of the two options as set out below. The normal length of the program is 120 credits.

Engineering Core: ( 30.75 credits)
See §71.20.5

| Computer Engineering Core |  | Credits |
| :---: | :---: | :---: |
| COEN 231 | Introduction to Discrete Mathematics | 3.00 |
| COEN 243 | Programming Methodology I | 3.00 |
| COEN 244 | Programming Methodology II | 3.00 |
| COEN 311 | Computer Organization and Software | 3.00 |
| COEN 312 | Digital Systems Design I | 3.75 |
| COEN 417 | Microprocessor Systems | 4.50 |
| COEN 445 | Communication Networks and Protocols | 4.00 |
| COEN 490 | Computer Engineering Project | 4.00 |
| COMP 346 | Operating Systems | 4.00 |
| COMP 352 | Data Structures and Algorithms | 3.00 |
| ELEC 261 | Complex Variables for Electrical and Computer Engineers | 3.00 |
| ELEC 311 | Electronics I | 4.50 |
| ELEC 321 | Introduction to Semiconductor Materials and Devices | 3.50 |
| ELEC 353 | Basic Electromagnetics and Transmission Line Theory | 3.00 |
| ELEC 361 | Signals and Systems | 3.00 |
| ELEC 370 | Modelling and Analysis of Physical Systems | 3.75 |
| ELEC 372 | Fundamentals of Control Systems | 3.75 |
| SOEN 341 | Software Process | 3.00 |
|  |  | 62.75 |
| System Hardware Option |  | Credits |
| COEN 313 | Digital Systems Design II | 3.75 |
| COEN 315 | Digital Electronics | 3.75 |
| COEN 316 | Computer Architecture and Design | 3.00 |
| COEN 451 | VLSI Design I | 4.00 |
| ELEC 461 | Fundamentals of Telecommunications Systems | 3.75 |
|  | Electives chosen from the lists below | 8.25 |
|  |  | 26.50 |
| System Software Option |  | Credits |
| COEN 320 | Introduction to Real-Time Systems | 3.00 |
| COEN 345 | Software Testing and Validation | 4.00 |
| COEN 421 | Embedded Systems and Software Design | 4.50 |


| SOEN 342 | Requirements and Specifications | 3.00 |
| :--- | :--- | :--- |
| SOEN 343 | Software Design | 3.00 |
|  | Electives chosen from the lists below | $\underline{9.00}$ |
|  |  | $\mathbf{2 6 . 5 0}$ |

Electives to complete option requirements may be chosen from the first list and/or from the list appropriate to the option.

| Both Options |  | Credits |
| :--- | :--- | :---: |
| COEN 498 | Topics in Computer Engineering | 3.00 |
| COMP 353 | Databases | 4.00 |
| COMP 471 | Computer Graphics | 4.00 |
| COMP 472 | Artificial Intelligence | 4.00 |
| COMP 474 | Introduction to Expert Systems | 4.00 |
| ELEC 442 | Introduction to Digital Signal Processing | 3.75 |
| ELEC 465 | Networks Security and Management | 3.75 |
| ELEC 481 | Linear Systems | 3.75 |
| ENCS 245 | Mechanical Analysis | 3.00 |
| ENCS 472 | Robot Manipulators | 3.75 |
| MANA 266 | Foundations of Modern Management | 3.00 |
| SOEN 344 | Software Architecture | 3.00 |
| ENGR 411 | Special Technical Report | 1.00 |
|  |  |  |
| System Hardware Option | Credits |  |
| COEN 320 | Introduction to Real-Time Systems | 3.00 |
| COEN 345 | Software Testing and Validation | 4.00 |
| COEN 421 | Embedded Systems and Software Design | 4.50 |
| COEN 452 | VLSI Design II | 4.00 |
| ELEC 312 | Electronics II | 4.50 |
| ELEC 462 | Digital Transmission Systems | 3.75 |
| ELEC 471 | Random Processes | 3.00 |
| SOEN 342 | Requirements and Specifications | 3.00 |
| SOEN 343 | Software Design | 3.00 |
|  |  | Credits |
| System Software Option | 3.75 |  |
| COEN 313 | Digital Systems Design II | 3.75 |
| COEN 315 | Digital Electronics | 3.00 |
| COEN 316 | Computer Architecture and Design | 3.00 |
| COMP 335 | Introduction to Theoretical Computer Science | 4.00 |
| COMP 442 | Compiler Design | 4.00 |
| COMP 451 | Database Design | 3.00 |
| COMP 465 | Design and Analysis of Algorithms | 3.75 |
| ELEC 461 | Fundamentals of Telecommunications Systems | 3.00 |
| SOEN 357 | User Interface Design | 3.00 |
| SOEN 431 | Formal Methods | 3.00 |
| SOEN 448 | Management of Evolving Systems | 3.00 |
| SOEN 449 | Component Engineering | 3.00 |
| SOEN 475 | Imaging and Visualization |  |
|  |  |  |

71.30 .3
The Co-operative
Format

## Director

FERHAT KHENDEK, Associate Professor
Students entering the program leading to the BEng degree in Electrical or Computer Engineering may request permission to undertake their studies in the co-op format by following the application procedure specified in §24.
Academic content is identical to that of the regular program, but seven Study terms are interspersed with four Work terms. Students in Electrical or Computer Engineering will complete between 15.75 and 18.25 credits in each Study Term to obtain the required number of credits for a BEng (Electrical or Computer).
Students are supervised personally and must meet the requirements specified in $\$ 71.10 .8$ in order to continue their studies in the co-op format.
Liaison between the student, the employers and the Institute for Co-operative Education is provided by the Electrical and Computer Engineering co-op committee, which includes the student's advisers. Please refer to $\S 24$ for the schedule of Study and Work terms and the full description of admission requirements.

## 

| Faculty | Chair | ZEZHONG CHEN |
| :---: | :---: | :---: |
|  | RAMA B. BHAT, Professor | JAVAD DARGAHI BRANDON W. GORDON |
|  | Associate Chair | IBRAHIM G. HASSAN |
|  | MINGYUAN CHEN, Associate Professor | HENRY HONG |
|  |  | MAMOUN MEDRAJ |
|  | Professors <br> AK WAIZUDDIN AHMED | MUTHUKUMARAN PACKIRISAMY |
|  | A.K. WAIZUDDIN AHMED | MARIUS PARASCHIVOIU |
|  | M. NABIL ESMAIL | LUIS RODRIGUES |
|  | SUONG VAN HOA | RAMIN SEDAGHATI |
|  | SUBHASH RAKHEJA | KAMRAN SIDDIQUI |
|  | JAROSLAV V. SVOBODA GEORGIOS H. VATISTAS | PAULA WOOD-ADAMS |
|  |  | Adjunct Professors |
|  | Distinguished Professors Emeriti | ADOLF E BLACH |
|  | RICHARD M.H. CHENG | RAO V DUKKIPATI |
|  | SUI LIN | RAO V. DUKKIPATI |
|  | HUGH J. MCQUEEN | CHEUNG-KUEI JFN |
|  | MOHAMED O.M. OSMAN | HANY MOUSTAPHA |
|  | Associate Professors | MARC J. RICHARD |
|  | AKIF ASIL BULGAK |  |
|  | KUDRET DEMIRLI | Adjunct Associate Professors |
|  | RAJAMOHAN GANESAN | PAUL-EMMILE BOILEAU |
|  | WAHID S. GHALY | OSAMA HUNAIDI |
|  | GERARD J. GOUW | ELENA KONOPLEVA |
|  | VOJISLAV N. LATINOVIC | MIN-THAT TON-THAT |
|  | ALEXANDER POVITSKY |  |
|  | MARTIN D. PUGH | Adjunct Assistant Professors |
|  | ION STIHARU | SERA FETTIN ENGIN |
|  | CHUN YI SU | GRANT GUĖVREMONT |
|  |  | MEDHAT HOJJATI |
|  | Associate Professors Emeriti | ASHOK KAUSHAL |
|  | KALMAN I. KRAKOW | MICHEL ROBICHAUD |
|  | RAFIK A. NEEMEH | YVAN SOUCY |
|  | Assistant Professors | Consultant to Industrial Engineering Program |
|  | ALI AKGUNDUZ | LOUISE QUESNEL |
|  | NADIA BHUIYAN |  |
| Location | Sir George Williams Campus |  |
|  | Hall Building, Room: H 549 |  |

The Department of Mechanical and Industrial Engineering offers two distinct undergraduate programs, one leading to the BEng in Mechanical Engineering, the other to the BEng in Industrial Engineering. Mechanical Engineering is concerned with all forms of power generation (hydro-electric, steam, internal combustion, nuclear, jet rocket, and fuel cells), the design of mechanisms and machines, transportation systems, controls and automation, vibration analysis, environmental control (heating, ventilation, and refrigeration), materials handling, and precision measurement. The Mechanical Engineering curriculum consists of a combination of core courses with a series of technical electives that allow students to obtain some specialization in a particular area of the field depending on their interests and expected future professional activity. Four options are available: Thermo Fluid and Propulsion Engineering; Design and Manufacturing Engineering; Automation and Control Systems; and Aerospace and Vehicle Systems.
Industrial Engineering is concerned with the design, organization, analysis, and integration of people and industrial systems components in order to achieve or enhance effectiveness. These components include whole machines, transportation and conveyance elements, physical plant, organizational frameworks, schedules, and budgets. The Industrial Engineering curriculum is therefore designed
to give students the background needed to define and solve problems related to the conception, improvement, integration, and implementation of industrial systems.
71.40 .1

Course Requirements (BEng in Mechanical Engineering)

The program in Mechanical Engineering consists of the Engineering Core, the Mechanical Engineering Core, and option requirements as shown below. The minimum length of the program is 120 credits.

Engineering Core ( 30.75 credits)
See §71.20.5

| Mechanical | Engineering Core | Credits |
| :--- | :--- | :---: |
| ENGR 242 | Statics | 3.00 |
| ENGR 243 | Dynamics | 3.00 |
| ENGR 244 | Mechanics of Materials | 3.75 |
| ENGR 251 | Thermodynamics I | 3.00 |
| ENGR 311 | Transform Calculus and Partial Differential Equations | 3.00 |
| ENGR 361 | Fluid Mechanics I | 3.00 |
| MECH 211 | Mechanical Engineering Drawing | 3.00 |
| MECH 215 | Programming for Mechanical and Industrial Engineers I | 3.00 |
| MECH 216 | Programming for Mechanical and Industrial Engineers II | 3.00 |
| MECH 221 | Materials Science | 2.00 |
| MECH 311 | Manufacturing Processes | 3.50 |
| MECH 313 | Machine Drawing and Design | 3.00 |
| MECH 321 | Properties and Failure of Materials | 3.50 |
| MECH 343 | Theory of Machines I | 3.50 |
| MECH 351 | Thermodynamics II | 3.50 |
| MECH 352 | Heat Transfer I | 3.50 |
| MECH 361 | Fluid Mechanics II | 3.50 |
| MECH 370 | Modelling, Simulation and Analysis of Physical Systems | 3.75 |
| MECH 371 | Fundamentals of Control Systems | 3.75 |
| MECH 372 | Industrial Electronics | 3.50 |
| MECH 373 | Instrumentation and Measurements | 3.50 |
| MECH 441 | Mechanical Engineering Design | 3.00 |
| MECH 443 | Mechanical Vibrations | 3.50 |
| MECH 490 | Capstone Mechanical Engineering Design Project | 4.00 |
|  |  | 78.75 |

## Option Requirements

Students in the Mechanical Engineering program must complete at least 10.5 elective credits from the courses listed below, with at least two of the courses from within one of options A, B, C, or D. Prior to registration for elective courses, students indicate their choice of option on a form available from the Department, which must be submitted to the Chair's office for approval prior to March 15.

1. Option A - Thermo Fluid and Propulsion Credits

MECH 452 Heat Transfer II 3.50
MECH 461 Gas Dynamics 3.50
MECH 462 Turbomachinery and Propulsion 3.00
MECH 464 Aerodynamics 3.00
2. Option B — Design and Manufacturing Credits

ENGR 460 Finite Element Analysis 3.75
INDU 411 Computer Integrated Manufacturing 3.50
MECH 412 Computer-Aided Mechanical Design 3.50
MECH $426 \quad$ Stress and Failure Analysis of Machinery 3.00
3. Option C - Automation and Control Systems Credits
ENGR 473 Control System Design 3.50

ENGR 475 Process Dynamics and Control 3.75
MECH 463 Fluid Power Control 3.50
MECH 471 Microprocessors and Applications 3.50
4. Option D - Aerospace and Vehicle Systems Credits

MECH $447 \quad$ Fundamentals of Vehicle Systems 3.50
MECH 448 Vehicle Dynamics 3.00
MECH $480 \quad$ Flight Control Systems 3.50
MECH 482 Avionic Navigation Systems 3.00

|  | Others |  | Credits |
| :---: | :---: | :---: | :---: |
|  | ELEC 481 | Linear Systems | 3.75 |
|  | ELEC 482 | System Optimization | 3.75 |
|  | INDU 320 | Production Engineering | 3.00 |
|  | INDU 323 | Industrial Operations Research | 3.00 |
|  | INDU 372 | Quality Control and Reliability | 3.00 |
|  | INDU 410 | Safety Engineering | 3.50 |
|  | INDU 412 | Human Factors Engineering | 3.50 |
|  | INDU 463 | Industrial Automation | 3.00 |
|  | MECH 413 | Theory of Machines II | 3.50 |
|  | MECH 421 | Mechanical Shaping of Metals and Plastics | 3.50 |
|  | MECH 422 | Mechanical Behaviour of Polymer Composite Materials | 3.00 |
|  | MECH 423 | Casting, Welding, Heat Treating, and Non-Destructive Testing | 3.50 |
|  | MECH 424 | Design and Fabrication of Micromachines and Micromechanisms | 3.50 |
|  | MECH 425 | Manufacturing of Composites | 3.50 |
|  | MECH 431 | Principles of Aeroelasticity | 3.00 |
|  | MECH 444 | Guided Vehicle Systems | 3.00 |
|  | MECH 446 | Process Equipment Design | 3.00 |
|  | MECH 453 | Heating, Ventilation and Air Conditioning Systems | 3.00 |
|  | MECH 454 | Vehicular Internal Combustion Engines | 3.00 |
|  | MECH 465 | Gas Turbine Design | 3.50 |
|  | MECH 481 | Materials Engineering for Aerospace | 3.00 |
|  | MECH 498 | Topics in Mechanical Engineering | 3.00 |
|  | ENGR 411 | Special Technical Report | 1.00 |
| 71.40 .2 <br> Course Requirements <br> (BEng in Industrial Engineering) | The program in Industrial Engineering consists of the Engineering Core, the Industrial Engineering Core and elective credits as shown below. The minimum length of the program is 120 credits. |  |  |
|  |  |  |  |
|  | Engineering Core ( 30.75 credits) |  |  |
|  | Note: Students are required to take ACCO 220 - Financial and Managerial Accounting ( 3.00 credits) as a General Education elective. |  |  |
|  | Industrial Engineering Core |  | Credits |
|  | ENGR 242 | Statics | 3.00 |
|  | ENGR 243 | Dynamics | 3.00 |
|  | ENGR 244 | Mechanics of Materials | 3.75 |
|  | ENGR 251 | Thermodynamics I | 3.00 |
|  | ENGR 311 | Transform Calculus and Partial Differential Equations | 3.00 |
|  | ENGR 361 | Fluid Mechanics I | 3.00 |
|  | INDU 211 | Introduction to Production and Manufacturing Systems | 3.00 |
|  | INDU 311 | Simulation of Industrial Systems | 3.50 |
|  | INDU 320 | Production Engineering | 3.00 |
|  | INDU 323 | Industrial Operations Research | 3.00 |
|  | INDU 330 | Engineering Management | 3.00 |
|  | INDU 372 | Quality Control and Reliability | 3.00 |
|  | INDU 411 | Computer Integrated Manufacturing | 3.50 |
|  | INDU 412 | Human Factors Engineering | 3.50 |
|  | INDU 421 | Facilities Design and Material Handling Systems | 3.50 |
|  | INDU 423 | Inventory Control | 3.50 |
|  | INDU 490 | Capstone Industrial Engineering Design Project | 4.00 |
|  | MECH 211 | Mechanical Engineering Drawing | 3.00 |
|  | MECH 215 | Programming for Mechanical and Industrial Engineers I | 3.00 |
|  | MECH 216 | Programming for Mechanical and Industrial Engineers II | 3.00 |
|  | MECH 221 | Materials Science | 2.00 |
|  | MECH 311 | Manufacturing Processes | 3.50 |
|  | MECH 313 | Machine Drawing and Design | 3.00 |
|  | MECH 370 | Modelling, Simulation and Analysis of Physical Systems | 3.75 |
|  | MECH 371 | Fundamentals of Control Systems | 3.75 |
|  |  |  | 80.25 |

## Electives

Students must complete a minimum of 9 credits from the following courses, including at least two of the courses marked ${ }^{*}$.

> Credits

INDU 410* Safety Engineering 3.50
INDU 430* Advanced Operations Research 3.00
INDU 440* Concurrent Engineering 3.00
INDU 463* Industrial Automation 3.00
INDU 466 Decision Models in Service Sector 3.00
INDU $471 \quad$ Stochastic Models in Industrial Engineering 3.00
INDU 475* Advanced Concepts in Quality Improvement 3.00
INDU 498 Topics in Industrial Engineering 3.00
ENGR 411 Special Technical Report 1.00
71.40.3 GERARD J. GOUW, Associate Professor

The Co-operative
Format
Students entering the program leading to the BEng degree in Mechanical or Industrial Engineering may request permission to undertake their studies in the co-op format by following the application procedure specified in §24.
Academic content is identical to that of the regular program, but seven Study terms are interspersed with four Work terms. Students in Mechanical or Industrial Engineering will normally complete between 14 and 20.25 credits in each Study Term to obtain the required 120 credits for a BEng (Mechanical) and 120 credits for a BEng (Industrial).
Students are supervised personally and must meet the requirements specified in $\$ 71.10 .8$ in order to continue their studies in the co-op format.
Liaison between the student, the employers and the Institute for Co-operative Education is provided by the Mechanical and Industrial Engineering co-op committee, which includes the student's advisers.
Please refer to $\S 24$ for the schedule of Study and Work terms and the full description of admission requirements.

### 71.50 CIVIL AND ENVIRONMENTAL ENGINEERING

| Chair | Associate Professors |
| :--- | :--- |
| Faculty | MARIA ELEKTOROWICZ |
|  | CATHERINE MULLIGAN MOSELHI, Professor |
|  | HSsociate Chair |

71.50 .1

Course Requirements

The program in Building Engineering consists of the Engineering Core, the Building Engineering Core, and at least nine elective credits chosen from the elective courses listed below. Students may choose the Information Technology option, and in this case they must take nine credits from this option instead of the list of elective courses. The normal length of the program is 119.25 credits.

Engineering Core (29.25 credits)*
See §71.20.5. Students in BEng (Bldg) must successfully complete BLDG 481 as their General Education course (see §71.20.6).
*Note: The Engineering Core credits for students in the Building Engineering program are reduced from 30.75 credits to 29.25 credits since Building Engineering students are not required to take ENGR 202 ( 1.5 credits) in their program.

| Building Engineering Core | Credits |  |
| :--- | :--- | :---: |
| BCEE 231 | Computer Applications in Building and Civil Engineering | 2.50 |
| BCEE 232 | Programming for Building and Civil Engineers I | 2.00 |
| BCEE 342 | Structural Analysis I | 2.00 |
| BCEE 343 | Structural Analysis II | 3.00 |
| BCEE 344 | Structural Design I | 3.00 |
| BCEE 345 | Structural Design II | 3.00 |
| BCEE 451 | Construction Engineering | 3.00 |
| BLDG 212 | Building Engineering Drawing | 3.00 |
| BLDG 341 | Building Engineering Systems | 3.00 |
| BLDG 365 | Building Science | 3.50 |
| BLDG 366 | Acoustics and Lighting | 3.50 |
| BLDG 371 | Building Service Systems | 3.50 |
| BLDG 459 | Computer-Aided Building Design | 3.00 |
| BLDG 463 | Building Envelope Design | 3.00 |
| BLDG 471 | HVAC System Design | 4.00 |
| BLDG 476 | Thermal Analysis of Buildings | 3.00 |
| BLDG 490 | Capstone Building Engineering Design Project | 4.00 |
| CIIV 271* | Surveying | 3.00 |
| CIVI 321 | Engineering Materials | 3.75 |
| CIVI 432 | Soil Mechanics | 3.50 |
| ELEC 362 | Vector Calculus and Partial Differential Equations | 3.00 |
| ENGR 242 | Statics | 3.00 |
| ENGR 243 | Dynamics | 3.00 |
| ENGR 244 | Mechanics of Materials | 3.75 |
| ENGR 251 | Thermodynamics I | 3.00 |
| ENGR 361 | Fluid Mechanics I | 3.00 |
|  |  | 81.50 |

*Summer course to be taken before entering second year of BEng program.

## Elective Courses

A student must choose a minimum of nine credits from the following list of elective courses.

|  |  | Credits |
| :--- | :--- | :---: |
| BCEE 331 | Programming for Building and Civil Engineers II | 3.00 |
| BCEE 452 | Matrix Analysis of Structures | 3.00 |
| BCEE 455 | Introduction to Structural Dynamics | 3.00 |
| BLDG 462 | Modern Building Materials | 3.00 |
| BLDG 465 | Fire and Smoke Control in Buildings | 3.00 |
| BLDG 472 | Building Energy Conservation Technologies | 3.00 |
| BLDG 473 | Building Acoustics | 3.00 |
| BLDG 474 | Building Illumination and Daylighting | 3.00 |
| BLDG 475 | Indoor Air Quality | 3.00 |
| BLDG 477 | Control Systems in Buildings | 3.00 |
| BLDG 478 | Project Management for Construction | 3.00 |
| BLDG 491 | Labour and Industrial Relations in Construction | 3.00 |
| BLDG 492 | Construction Processes | 3.00 |
| BLDG 493 | Legal Issues in Construction | 3.00 |
| BLDG 498 | Topics in Building Engineering | 3.00 |
| CIVI 435 | Foundation Design | 3.50 |
| CIV 453 | Design of Reinforced Concrete Structures | 3.50 |
| CIV 454 | Design of Steel Structures | 3.50 |
| ENGR 411 | Special Technical Report | 1.00 |
|  |  |  |
|  |  |  |
| Option - Information Technology | Credits |  |
| BCEE 331 | Programming for Building and Civil Engineers II | 3.00 |
| COEN 231 | Introduction to Discrete Mathematics | 3.00 |
| COMP 352 | Data Structures and Algorithms | 3.00 |

Civil Engineering is concerned with the creation of systems of constructed facilities which play an important role in sound economic growth of society. It is also concerned with the development of technologies to combat pollution of air, water, and soil. Civil engineers are responsible for the design of foundations and superstructures of common structures such as buildings, bridges, dams, tunnels, wharves, as well as many unusual structures such as rocket installations, containment vessels for nuclear reactors, supports for radio telescopes, frameworks for aircraft. In addition, they are concerned with the engineering aspects of water resources; transportation facilities; planning metropolitan areas, and conducting and managing their public facilities. In dealing with environmental problems, civil engineers perform vital functions such as monitoring and controlling air, water, and soil quality, assessing the impact of technological changes on the environment, and developing innovative waste reduction technologies.
71.50 .2
Course Requirements

The program in Civil Engineering consists of the Engineering Core, the Civil Engineering Core, and one of the options listed below. The normal length of the program is 119.5 credits.

Engineering Core ( 30.75 credits)
Students in the BEng (Civil) program must take ACCO 220 as their General Education course. See §71.20.5.

| Civil Engineering Core | Credits |  |
| :--- | :--- | ---: |
|  |  |  |
| BCEE 231 | Computer Applications in Building and Civil Engineering | 2.50 |
| BCEE 232 | Programming for Building and Civil Engineers I | 2.00 |
| BCEE 342 | Structural Analysis I | 2.00 |
| BCEE 343 | Structural Analysis II | 3.00 |
| BCEE 344 | Structural Design I | 3.00 |
| BCEE 345 | Structural Design II | 3.00 |
| BCEE 451 | Construction Engineering | 3.00 |
| CIVI 212 | Civil Engineering Drawing | 3.00 |
| CIVI 231 | Geology | 3.75 |
| CIVI 271* | Surveying | 3.00 |
| CIVI 321 | Engineering Materials | 3.75 |
| CIVI 341 | Civil Engineering Systems | 3.00 |
| CIVI 361 | Introduction to Environmental Engineering | 3.00 |
| CIVI 372 | Transportation Engineering | 3.50 |
| CIVI 381 | Hydraulics | 3.50 |
| CIVI 382 | Water Supply and Waste-Water Engineering | 3.50 |
| CIVI 432 | Soil Mechanics | 4.00 |
| CIVI 490 | Integrated Civil Engineering Design Project | 3.00 |
| ELEC 362 | Vector Calculus and Partial Differential Equations | 3.00 |
| ENGR 242 | Statics | 3.00 |
| ENGR 243 | Dynamics | 3.75 |
| ENGR 244 | Mechanics of Materials | 3.00 |
| ENGR 251 | Thermodynamics I | 3.00 |
| ENGR 361 | Fluid Mechanics I | 73.75 |

*Summer course to be taken before entering second year of BEng program.

## Option Course Requirements

Students must complete a minimum of 12 credits from one of the following options, and at least three additional credits from any of the options. Option A is designed for students interested in careers in structural, geotechnical, and transportation engineering. Option B is tailored for students wishing to pursue careers in environmental engineering. Option C is designed for students interested in the applications of information technology in civil engineering.

|  | Option A - General | Credits |
| :--- | :--- | :---: |
| BCEE 452 | Matrix Analysis of Structures | 3.00 |
| BCEE 455 | Introduction to Structural Dynamics | 3.00 |
| CIVI 435 | Foundation Design | 3.50 |
| CIVI 437 | Advanced Geotechnical Engineering | 3.00 |
| CIVI 453 | Design of Reinforced Concrete Structures | 3.50 |


|  | CIVI 454 | Design of Steel Structures | 3.50 |
| :---: | :---: | :---: | :---: |
|  | CIVI 471 | Highway and Pavement Design | 3.50 |
|  | CIVI 474 | Transportation Planning and Design | 3.00 |
|  | Option B - Environmental |  | Credits |
|  | CIVI 464 | Environmental Impact Assessment | 3.00 |
|  | CIVI 465 | Water Pollution and Control | 3.50 |
|  | CIVI 466 | Engineering Aspects of Chemical and Biological Processes | 3.00 |
|  | CIVI 467 | Air Pollution and Emission Control | 3.00 |
|  | CIVI 468 | Waste Management | 3.00 |
|  | CIVI 469 | Geo-Environmental Engineering | 3.50 |
|  | CIVI 483 | Hydrology | 3.50 |
|  | CIVI 484 | Hydraulic Engineering | 3.50 |
|  | Option C - Information Technology |  | Credits |
|  | BCEE 331 | Programming for Building and Civil Engineers II | 3.00 |
|  | BLDG 459 | Computer-Aided Building Design | 3.00 |
|  | COEN 231 | Introduction to Discrete Mathematics | 3.00 |
|  | COMP 352 | Data Structures and Algorithms | 3.00 |
|  | Option A, B, or C |  | Credits |
|  | ENGR 411 | Special Technical Report | 1.00 |
| 71.50 .3 <br> The Co-operative | Director <br> MARIA ELEKTOROWICZ, Associate Professor |  |  |
| Format | Students entering the program leading to the BEng degree in Building or Civil Engineering may request permission to undertake their studies in the co-op format by following the application procedure specified in §24. <br> Academic content is identical to that of the regular program, but seven Study terms are interspersed with four Work terms. Students in Building or Civil Engineering will complete between 15 and 18 credits in each Study Term to obtain the required 119.25 or 119.5 credits for a BEng (Building or Civil, respectively). <br> Students are supervised personally and must meet the requirements specified in §71.10.8 in order to continue their studies in the co-op format. <br> Liaison between the student, the employers and the Institute for Co-operative Education is provided by the Building and Civil Engineering co-op committee, which includes the student's advisers. <br> Please refer to $\S 24$ for the schedule of Study and Work terms and the full description of admission requirements. |  |  |

# 71.60 

## ENGINEERING MATHEMATICS

## EMAT 213 Ordinary Differential Equations (3 credits)

Prerequisite: MATH 204 (cégep Mathematics 105) previously or concurrently; MATH 205 (cégep Mathematics 203). Complex numbers. Solution of linear differential equations with constant coefficients. Differential operator. Homogeneous equation, characteristic equation, real and complex roots. Particular integral. Forced and free response, exact equations, integrating factors (function of one variable only), Euler-Cauchy equation, solution by variation of parameters, forced oscillations. Motivation for series solution of differential equations. Taylor series, convergence, ratio test, integral test, comparison test, remainder estimation. Reduction of n'th order differential equation to matrix form. Eigenvalues and eigenvectors. Lectures: three hours per week. Tutorial: two hours per week. NOTE: Students who have received credit for EMAT 212 and 232 may not take this course for credit.

EMAT 233 Advanced Calculus (3 credits) Prerequisite: MATH 204 (cégep Mathematics 105); MATH 205 (cégep Mathematics 203). Functions of several variables, partial derivatives, higher order partial derivatives, differentials, total and exact differentials, approximations with differentials. Tangent plane and normal line to a surface, directional derivatives, gradient. Double integrals, polar coordinates, transformation of double integrals. Triple integrals, cylindrical and spherical coordinates, transformation of triple integrals. Vector differential calculus: divergence, curl, curvature, line integrals, Green's theorem, surfaces, surface integrals, divergence theorem, applications of divergence theorem, Stokes' theorem. Lectures: three hours per week. Tutorial: two hours per week. NOTE: Students who have received credit for EMAT 212 and 232 may not take this course for credit.

## ENGINEERING AND COMPUTER SCIENCE

ENCS 245 Mechanical Analysis (3 credits) Prerequisite: PHYS 204 and PHYS 224 (cégep Physics 101); EMAT 213 previously or concurrently. Forces in a plane and in space, moments of forces, Varignon's theorem, rigid bodies in equilibrium, free-body diagram. Centroids, centres of gravity. Distributed forces, moments of inertia. Principle of virtual work. Kinematics of particles and rigid bodies. Forces and accelerations; work and energy; impulse
and momentum. Kinetics of particles and rigid bodies. Lectures: three hours per week. Tutorial: one hour per week.

## ENCS 282 Technical Writing and

 Communication (3 credits) Technical writing form and style. Technical and scientific papers, abstracts, reports. Library research and referencing methods for engineers and computer scientists. Technical communication using information technology: document processing software, computer-assisted presentation, analysis and design of Web presentation, choice and use of appropriate tools. Students will prepare an individual major report and make an oral presentation. Students may be required to attend tutorial writing workshops based on the results of placement tests administered at the start of the course. Lectures: three hours per week. Tutorial: two hours per week. NOTE: Students who have received credit for ENCS 281 may not take this course for credit.
## ENCS 410 Social Issues in Computers and Information Technology

 (3 credits)Prerequisite: ENCS 282; SOEN 341. Characteristics of information technology; end-user computing; cyberspace applications. Social issues, including differences between software engineering and other engineering disciplines. Security, privacy, and accountability. Moral, ethical, and legal issues. Impact of computer technology on individuals and social groups: life, work, leisure, and interactions. Conflicts and trade-offs; lessons from history. Lectures: three hours per week.

ENCS 472 Robot Manipulators
(3.75 credits)

Prerequisite: ELEC 372 or ENGR 372. Spatial descriptions and transformations. Manipulator forward and inverse kinematics. Jacobians: velocities and static forces. Manipulator dynamics. Trajectory generation. Position control of manipulators. Force control of manipulators. Robot programming languages. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ENGINEERING

## ENGR 201 Professional Practice and

 Responsibility ( 1.5 credits) Health and safety issues for engineering projects: Québec and Canadian legislation; safe work practices; general laboratory safety common to all engineering disciplines, and specific laboratory safety pertaining to particular engineering disciplines. Review of the legal framework inQuébec, particularly the Professional Code and the Engineers Act, as well as professional ethics. Lectures: one and a half hours per week. NOTE: Students who have received credit for ENGR 402 or SOEN 402 may not take this course for credit.

## ENGR 202 Sustainable Development and

 Environmental Stewardship ( 1.5 credits)Introduction to the concept of sustainable development and the approaches for achieving it. Relationships with economic, social, and technological development. Methods for evaluating sustainability of engineering projects, including utilization of relevant databases and software. Impact of engineering design and industrial development on the environment. Case studies. Lectures: one and a half hours per week.

ENGR 242 Statics (3 credits)
Prerequisite: EMAT 213 previously or concurrently; PHYS 204, 224; MATH 204. Resultant of force systems; equilibrium of particles and rigid bodies; distributed forces; statically determinate systems; trusses; friction; moments of inertia; virtual work. Shear and bending moment diagrams. Lectures: three hours per week. Tutorial: two hours per week.

ENGR 243 Dynamics ( 3 credits) Prerequisite: EMAT 213; ENGR 242. Kinematics of a particle and rigid body; forces and accelerations; work and energy; impulse and momentum; dynamics of a system of particles and rigid bodies, introduction to vibrations. Lectures: three hours per week. Tutorial: two hours per week.

## ENGR 244 Mechanics of Materials ( 3.75 credits)

Prerequisite: ENGR 242; EMAT 213; EMAT 233 previously or concurrently. Mechanical behaviour of materials; stress; strain; shear and bending moment diagrams; introduction to inelastic action. Analysis and design of structural and machine elements subjected to axial, torsional, and flexural loadings. Combined stresses and stress transformation. Deflections. Introduction to elastic stability. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

ENGR 251 Thermodynamics I (3 credits) Prerequisite: MATH 203 (cégep Mathematics 103). Basic principles of thermodynamics and their application to various systems composed of pure substances and their homogeneous non-reactive mixtures. Simple power production and utilization cycles. Lectures: three hours per week. Tutorial: two hours per week.

## ENGR 275 Principles of Electrical

 Engineering ( 3.75 credits) Prerequisite: EMAT 212 or 213 previously or concurrently. Fundamentals of electric circuits: Kirchoff's laws, voltage and current sources,Ohm's law, series and parallel circuits. Nodal and mesh analysis of DC circuits. Superposition theorem, Thevenin and Norton Equivalents. Use of operational amplifiers. Transient analysis of simple RC, RL and RLC circuits. Steady state analysis: Phasors and impedances, power and power factor. Single and three phase circuits. Magnetic circuits and transformers. Power generation and distribution. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

## ENGR 301 Engineering Management Principles and Economics (3 credits)

Introduction to project delivery systems. Principles of project management; role and activity of a manager; enterprise organizational charts; cost estimating; planning and control. Company finances; interest and time value of money; discounted cash flow; evaluation of projects in private and public sectors; depreciation methods; business tax regulations; decision tree; sensitivity analysis. Lectures: three hours per week.
NOTE: Students who have received credit for ENGR 401 or 403 may not take this course for credit.

## ENGR 311 Transform Calculus and Partial

 Differential Equations (3 credits)Prerequisite: EMAT 233. Elements of complex variables. The Laplace transform: Laplace transforms and their properties, solution of linear differential equations with constant coefficients. Further theorems and their applications. The Fourier transform: orthogonal functions, expansion of a function in orthogonal functions, the Fourier series, the Fourier integral, the Fourier transform, the convolution theorem. Partial differential equations: physical foundations of partial differential equations, introduction to boundary value problems. Lectures: three hours per week. Tutorial: two hours per week.
NOTE: Students who have received credit for EMAT 311 may not take this course for credit.

ENGR 361 Fluid Mechanics I (3 credits) Prerequisite: EMAT 213, 233; ENGR 251. Basic concepts and principles of fluid mechanics. Classification of fluid flow. Hydrostatic forces on plane and curved surfaces, buoyancy and stability, fluids in rigid body motion. Mass, momentum, and energy conservation integral equations. Bernoulli equation. Basic concepts of pipe and duct flow. Introduction to Navier-Stokes equations. Similarity and model studies. Lectures: three hours per week. Tutorial: one hour per week.

## ENGR 371 Probability and Statistics in Engineering ( 3 credits)

Prerequisite: EMAT 213, 233. Axioms of probability theory. Events. Conditional probability. Bayes theorem. Random variables. Mathematical expectation. Discrete and continuous probability density functions. Transformation of variables. Probabilistic models, statistics, and elements of
hypothesis testing (sampling distributions and interval estimation). Introduction to statistical quality control. Applications to engineering problems. Lectures: three hours per week. Tutorial: one hour per week.

## ENGR $391 \quad$ Numerical Methods in

 Engineering (3 credits)Prerequisite: EMAT 213, 233; COMP 248 or COEN 243 or MECH 215 or BCEE 232. Roots of algebraic and transcendental equations; function approximation; numerical differentiation; numerical integration; solution of simultaneous algebraic equations; numerical integration of ordinary differential equations. Lectures: three hours per week. Tutorial: one hour per week. NOTE: Students who have received credit for EMAT 391 may not take this course for credit.

ENGR 410 Technical Report (1.5 credits) Prerequisite: ENCS 281. Registration in this course is by departmental permission only. Students being considered for this course must have completed ENCS 281 and been accepted to an Engineering program prior to September 2001. Students given permission to take this course must submit a report from 2,000 to 5,000 words long, on a topic closely related to the student's discipline. The report must present a review of a current engineering problem, a proposal for a design project, or a current engineering practice; a student's summer work may provide a suitable basis. Students are responsible for acquiring a complete set of instructions and the document Form and Style in the spring before entering the final year of the BEng program. These documents are available on the Faculty's Student Affairs Web site.
NOTE 1: Students must receive approval from their Undergraduate Program Director in order to register for this course. If approved, students must discuss their proposed topic with a faculty member in their Department, and obtain departmental approval of the proposed topic prior to registration for the course.
NOTE 2: Students in the Software Engineering program must take this course concurrently with SOEN 490.
NOTE: Students who have received credit for ENGR 411 may not take this course for credit.

## ENGR 411 Special Technical Report (1 credit)

Prerequisite: ENCS 281 or 282. Registration in this course is by departmental permission only. Students in the BEng program must submit a project report associated with their final-year Capstone Design project course. While a portion of the requirements for the written report will depend on the associated project course for which the student is registered, the report should also conform to the set of instructions available through the departmental offices or the Office of Student Affairs of the Faculty. NOTE: Students who have received credit for ENGR 410 may not take this course for credit.

## ENGR 460 Finite Element Analysis

 (3.75 credits)Prerequisite: ENGR 391 or EMAT 391; ENGR 244 or ENCS 245. Formulation and application of the finite element method to modelling of engineering problems, including stress analysis, vibrations, and heat transfer. Examples illustrating the direct approach, as well as variational and weighted residual methods. Elements and interpolation functions. Meshing effect. Error analysis. One- and two-dimensional boundary value problems. Development of simple programs and direct experience with general purpose packages currently used in industry for design problems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ENGR 473 Control System Design

 (3.5 credits)Prerequisite: ENGR 372 or ELEC 372. A course in industrial control design procedures by case study, including practical sensing, control, and actuating elements; optimization of system performance by choice of components and compensation; nonlinearites, introduction to multi-loop systems. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

ENGR 475 Process Dynamics and Control (3.75 credits)

Prerequisite: ENGR 372 or ELEC 372. Dynamics of mechanical and chemical processes; system capacity; resistance; piping complexes; characteristics and dynamics of control valves; process time constants; proportional, reset, and derivative control actions; feedforward and cascade control; direct digital control. Case studies on liquid-level control, temperature, and heat exchanger control. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ENGR 492 Impact of Technology on Society (3 credits)

 Prerequisite: ENCS 281 or 282; 20 courses in BEng program. Social history of technology and of science including the industrial revolution and modern times. Engineering and scientific creativity, social and environmental problems created by uncontrolled technology, appropriate technology. Lectures: three hours per week.
## BUILDING, CIVIL AND ENVIRONMENTAL ENGINEERING

## BCEE 231 Computer Applications in Building and Civil Engineering (2.5 credits)

Prerequisite: MATH 204; COMP 201; ENGR 242 previously or concurrently. Application of computers for solution of problems from various areas of building and civil engineering that involve the use of software including high-level scripting languages, spreadsheets, databases and CAD systems. Program structure and development: specifications, analysis of requirements, flow charting, incremental development, testing, vali-
dation and program documenting. Lectures: two hours per week. Tutorial: one hour per week. Laboratory: one hour per week.
NOTE: Students who have received credit for ENGR 231 may not take this course for credit.

BCEE 232 Programming for Building and Civil Engineers I (2 credits)
Prerequisite: BCEE 231. Elements of procedural programming: variables, primitive data types, scope, operators and expressions, control structures, functions, derived data types and basic data structures. Use of numerical tool box for engineering applications. Application examples and assignments will be drawn from building and civil engineering science. Lectures: two hours per week. Tutorial: two hours per week. NOTE: Students who have received credit for ENGR 232 may not take this course for credit.

## BCEE 331 Programming for Building and

 Civil Engineers II (3 credits)Prerequisite: BCEE 232. Fundamentals of object-oriented programming: class definition, data and function members, constructors and destructors; derived classes; inheritance, polymorphism, class libraries; concepts of software engineering. Project on software design for building and civil engineering applications. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for ENGR 331 may not take this course for credit.

BCEE 342 Structural Analysis I (2 credits) Prerequisite: ENGR 244 previously or concurrently. Analysis of statically determinate structures: deflections, strain energy concepts, virtual work principles. Mueller Breslau principle, influence lines. Approximate methods for statically indeterminate structures. Collapse load analysis. Computer applications. Lectures: two hours per week. Tutorial: one hour per week. NOTE: Students who have received credit for ENGR 342 may not take this course for credit.

BCEE 343 Structural Analysis II (3 credits) Prerequisite: BCEE 342. Analysis of statically indeterminate structures: the methods of consistent deformations, slope deflection, and moment distribution. Application of virtual work principles. Introduction to matrix methods. Computer applications. Lectures: three hours per week. Tutorial: one hour per week. NOTE: Students who have received credit for ENGR 343 may not take this course for credit.

BCEE 344 Structural Design I (3 credits) Prerequisite: BCEE 342 previously or concurrently. Basis for limit states design. Code requirements. Structural steel design: tension and compression members, beams and beamcolumns. Connections. Introduction to the design of timber members. Lectures: two hours per week. Laboratory: two hours per week. NOTE: Students who have received credit for ENGR 344 may not take this course for credit.

BCEE 345 Structural Design II (3 credits) Prerequisite: BCEE 342 previously or concurrently. Reinforced concrete behaviour in flexure, compression, shear, and bond. Ultimate strength design of reinforced concrete beams, columns, walls, and footings. Introduction to prestressed concrete and masonry. Lecture: two hours per week. Laboratory: two hours per week.
NOTE: Students who have received credit for ENGR 345 may not take this course for credit.

## BCEE 451 Construction Engineering

 (3 credits)Prerequisite: BLDG 341 or CIVI 341. The nature of construction and the environment in which the industry works; organizational structures for project delivery; construction contracts and documents; introduction to construction processes: excavation and site works, foundation layout, concrete form design, concrete, steel, timber, and masonry construction; project planning, scheduling, and control; construction safety. Lectures: three hours per week. NOTE: Students who have received credit for ENGR 451 may not take this course for credit.

## BCEE 452 Matrix Analysis of Structures

 (3 credits)Prerequisite: EMAT 213, 233; BCEE 343. Classical and matrix methods of structural analysis; influence coefficients, transformation matrices. Matrix formulation of the force and of the displacement methods of analysis. Direct stiffness approach; sub-structure technique. Introduction to finite-element method. Computer applications. Lectures: three hours per week. NOTE: Students who have received credit for ENGR 452 may not take this course for credit.

## BCEE 455 Introduction to Structural Dynamics ( 3 credits)

Prerequisite: ENGR 243, 391; BCEE 342.
Theory of vibration. Dynamic response of simple structural systems. Effects of blast, wind, traffic, and machinery vibrations. Basic concepts in earthquake resistant design. Computer applications. Lectures: three hours per week. NOTE: Students who have received credit for ENGR 455 may not take this course for credit.

## BUILDING ENGINEERING

## BLDG 212 Building Engineering Drawing (3 credits)

Fundamentals of technical drawing, dimensioning practices, orthographic projections, auxiliary and sectional views of buildings. Theory and applications of descriptive geometry in building design. Computer-aided building drawing. Building subsystems and related graphics standards; architectural and building engineering drawing at preliminary and final stages. Introduction to the design of light-frame buildings. Project: representation of a building and its sub-systems. Lectures: two hours per week. Laboratory: two hours per week. Tutorial: one hour per week. NOTE: Students who have received credit for BLDG 211 may not take this course for credit.

## BLDG 341 Building Engineering Systems

 (3 credits)Introduction to systematic solution of building engineering problems. Techniques treated include linear programming, network analysis, nonlinear programming. Introduction to decision analysis and simulation. Application of optimization methods for solution of design problems in building science, building environment, building structures, and construction management, taking into account sustainability issues. Lectures: three hours per week.

BLDG 365 Building Science ( 3.5 credits) Prerequisite: ENGR 251. General introduction to the thermal environment and sustainable development issues. Topics include heat, temperature, one-dimensional steady-state processes. Convection: natural and forced. Radiation. Combined radiative and convective surface transfer. Psychrometrics. Thermal comfort. Air quality. Condensation: surface and interstitial. Introduction to compressible viscous flow, friction, and flow in pipes; boundary layer and wind effects. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.
NOTE: Students who have received credit for BLDG 364 may not take this course for credit.

## BLDG 366 Acoustics and Lighting

 (3.5 credits)Prerequisite: ENGR 243. General introduction to the aural and visual environment. Psychological impact of environment. Subjective and objective scales of measurement. Introduction to vibration. The hearing mechanism. Transmission of sound, passive control of noise in buildings, transmission loss, absorption and reverberation time. Room acoustic assessment. Active control of the aural environment. Visual perception. Photometry, brightness, luminance, and illumination. Concept of natural lighting in building. Artificial lighting; light sources; Iuminaries. Calorimetry. Calculation methods for artificial lighting. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks. NOTE: Students who have received credit for BLDG 363 may not take this course for credit.

## BLDG 371 Building Service Systems

 (3.5 credits)Prerequisite: BLDG 365. Principles of building service systems, including electrical, gas, communications, service-water supply and distribution; introduction to plans, codes, and standards for utility distribution systems. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

BLDG 401 Building Economics (3 credits) Prerequisite: BLDG 341 previously or concurrently. Development of economic performance measures of interest to developers, owners, contractors, and users. Sources of finance and the determinants of the cost of money. Treatment of life cycle costing, economic risk; tax
regulation, inflation, forecasting techniques; model building, cost indices, elemental estimating, computerized information systems. Consideration of economic analyses of projects, single buildings, and building components. Lectures: three hours per week.

## BLDG 459 Computer-Aided Building Design (3 credits)

Prerequisite: BLDG 341. Building engineering design process: methodology, identification of objectives, building codes, formulation of design problems. Development and evaluation of sustainable building design alternatives. Conceptual building design: spatial requirements, design of space layout. Preliminary building design: synthesis and design of structures, enclosure systems, and services (HVAC, lighting, electrical distribution) using computeraided design tools. Performance evaluation using modelling, sensitivity analysis and cost estimation. A major design project is an integral part of this course. Lectures: three hours per week.

## BLDG 462 Modern Building Materials (3 credits)

Prerequisite: CIVI 321. Engineering properties of building materials such as: plastics, synthetic fibres, adhesives, sealants, caulking compounds, foams, sandwich panels, composites, polymer concrete systems, fibre-reinforced concretes, plastic mortars, polymers for flooring, roofing, synthetic wall papers. Their structural, thermal, and acoustical properties. Consideration of corrosion, bio- and thermal-degradation, stability to ultraviolet and solar radiation. Laboratory sessions to illustrate synthesis, application, testing, deterioration, and protection. Lectures: three hours per week.

## BLDG 463 Building Envelope Design (3 credits)

Prerequisite: BLDG 365; CIVI 321. Technical influences in the design of building envelope, including the control of heat flow, air and moisture penetration, building movements, and deterioration. Application of air/vapour barrier and rain-screen systems. Performance assessment and building codes through case studies and design projects. Sustainable design principles. Design of walls, roofs, joints and assemblies. Cause of deterioration and preventive measures, on-site investigation. Relevant building codes and standards. Lectures: three hours per week.
NOTE: Students who have received credit for BLDG 461 may not take this course for credit.

## BLDG 465 Fire and Smoke Control in Buildings (3 credits)

Prerequisite: BLDG 365, 366. Topics treated include fire and smoke control; failure mechanisms of building enclosure illustrated by case studies; code requirements for enclosure systems; systems approach for fire safety. Lectures: three hours per week.

BLDG 471 HVAC System Design (4 credits) Prerequisite: BLDG 371; BLDG 476 previously or concurrently. Principles of HVAC system design and analysis; sustainable design issues and impact on environment; component and system selection criteria including room air distribution, fans and air circulation, humidifying and dehumidifying processes, piping and ducting design. Air quality standards. Control systems and techniques; operational economics; computer applications. Lectures: three hours per week. Laboratory: two hours per week.

## BLDG 472 Building Energy Conservation Technologies (3 credits)

Prerequisite: BLDG 471 previously or concurrently. Standards of energy efficiency in buildings. Trends in energy consumption. Energy audit: evaluation of energy performance of existing buildings, weather normalization methods, measurements, disaggregation of total energy consumption, use of computer models, impact of people behaviour. Energy efficiency measures in buildings: approaches, materials and equipments, operating strategies, evaluation methods of energy savings. Renewable energy sources: passive or active solar systems, geothermal systems, free-cooling. Optimum selection of energy sources. Impact of emerging technologies. Case studies. Lectures: three hours per week.

BLDG 473 Building Acoustics (3 credits) Prerequisite: BLDG 363. Noise control criteria and regulations, instrumentation, noise sources, room acoustics, walls, barriers and enclosures, acoustical materials and structures, vibration and noise control systems for buildings. Lectures: three hours per week.

## BLDG 474 Building Illumination and

 Daylighting ( 3 credits)Prerequisite: BLDG 364. Production, measurement and control of light. Photometric quantities, visual perception and colour theory. Daylight and artificial illumination systems. Radiative transfer, fixture and lamp characteristics, control devices and energy conservation techniques. Design of lighting systems. Solar energy utilization and daylighting. Integration of lighting systems with mechanical systems for energy conservation and sustainable development. Lectures: three hours per week.

BLDG 475 Indoor Air Quality (3 credits) Prerequisite: BLDG 371 previously or concurrently. Elements of indoor air quality, physical/ chemical characteristics of contaminants, health effects, standard requirements. Estimation of the levels of indoor air contaminants in buildings. Design of ventilation systems for pollutant control. Air pollution due to outdoor air supply through ventilation systems. Effect of outdoor air pollution on indoor air quality. Lectures: three hours per week.

## BLDG 476 Thermal Analysis of Buildings

 (3 credits)Prerequisite: BLDG 365. Two- and three-dimen-
sional steady-state and transient conductive heat transfer together with convection and radiation as applied to building materials and geometries. Heating and cooling load analysis, including building shapes, construction type, solar radiation, infiltration, occupancy effects, and daily load variations. Computer applications for thermal load analysis. Introduction to heat exchangers. Lectures: three hours per week. Tutorial: one hour per week.

## BLDG 477 Control Systems in Buildings (3 credits)

Prerequisite: BLDG 371 previously or concurrently. Introduction to automatic control systems. Control issues related to energy conservation, indoor air quality and thermal comfort in buildings. Classification of HVAC control systems. Control system hardware: selection and sizing of sensors, actuators and controllers. Practical HVAC control systems; elementary local loop and complete control systems. Designing and tuning of controllers. Building automation systems. Case studies. Lectures: three hours per week.

## BLDG 478 Project Management for Construction (3 credits)

Prerequisite: BLDG 341. Introduction to project management techniques in construction, including project delivery methods, construction contracts, cost estimating and bidding planning and scheduling, cash flow analysis, project tracking and control, computer applications. Lectures: three hours per week.

## BLDG 481 Architectural Appreciation and Design (3 credits)

Prerequisite: 20 courses in the BEng program. Historical and modern architectural theories. Meaning, intentions, and formal issues in contemporary design. The influence of technology, energy conservation, and environmental constraints on built form. Architecture vs. industrial design. Lectures: three hours per week.

## BLDG 490 Capstone Building Engineering Design Project (4 credits)

Prerequisite: Minimum of 75 credits in the BEng (Bldg) program or permission of the Department; ENCS 282. The project of each team will encompass the integrated design of at least three sub-systems of a new or retro-fitted building to achieve high performance and efficiency at reasonable cost; sustainable design issues and environmental impact will be addressed in all projects. In the process, students will learn, through case studies and literature survey, the information gathering and decision/design process, problem-resolution as well as aspects related to management, teamwork and communication. Students registering for this course must contact the course coordinator for the detailed procedure. Lectures: two hours per week, two terms.

## BLDG 491 Labour and Industrial Relations

in Construction (3 credits)
Prerequisite: BCEE 451 or ENGR 451. The study of labour legislation with special emphasis on the construction industry, union organization, the theory and practice of negotiations, mediation, contract administration, and arbitration. Review of actual contracts, discussion of future trends. Lectures: three hours per week.

## BLDG 492 Construction Processes (3 credits)

Prerequisite: BCEE 451 or ENGR 451. A study of current construction methods and techniques. The subjects include site preparation and earthwork, wood framing, masonry, concrete forming, slip forming, precast construction, industrialized building, deep excavation shoring and underpinning. Design, erection, and removal of temporary construction work. Current field practice and safety considerations. Site visits. Lectures: three hours per week.

## BLDG 493 Legal Issues in Construction (3 credits) <br> Prerequisite: BCEE 451 or ENGR 451. Legal concepts and processes applicable to the development of constructed facilities and to the operation of the construction firm. Emphasis on Québec law and institutions. Lectures: three hours per week.

## BLDG 498 Topics in Building Engineering (3 credits)

Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Department. The course content may vary from offering to offering and will be chosen to complement the available elective courses. Lectures: three hours per week.

## CIVIL ENGINEERING

## CIVI 212 Civil Engineering Drawing (3 credits)

Fundamentals of technical drawing, dimensioning practice, orthographic projections, auxiliary and sectional views. Theory and applications of descriptive geometry in civil engineering. Computeraided drawing and applications to the preparation of working drawing of steel and concrete structures. Lectures: two hours per week. Tutorial: one hour per week. Laboratory: two hours per week. NOTE: Students who have received credit for CIVI 211 may not take this course for credit.

CIVI 231 Geology ( 2.75 credits)
Basic principles of physical and structural geology with emphasis on topics related to civil engineering, study of minerals, rocks and soil types, load formation, techniques of air-photo interpretations, and geological maps. Lectures: two hours per week. Laboratory: three hours per week, alternate weeks.

CIVI 271 Surveying (3 credits)
Elementary operations employed in engineering surveying; use, care, and adjustment of instru-
ments; linear and angular measurements; traversing; earthwork calculations; theory of errors; horizontal and vertical curves and curve layout; slope stakes and grades, application of surveying methods to city, topographic surveying, and introduction to advanced surveying techniques; use of digital computers in surveying calculations. Summer school taken before entering second year of study in the BEng program. Lectures and fieldwork: eight hours per day; six days per week for three weeks.

## CIVI 321 Engineering Materials

(3.75 credits)

Linear and nonlinear material behaviour, timedependent behaviour; structural and engineering properties of structural metals; behaviour of wood; production and properties of concrete; bituminous materials, ceramics, plastics; introduction to composite materials. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## CIVI 341 Civil Engineering Systems (3 credits)

Prerequisite: ENGR 371 previously or concurrently; BCEE 231. Development of concepts and techniques commonly associated with systems engineering which are applicable to design and operation of systems that concern civil engineers. Design and planning process; problem formulation, optimization concepts, linear programming, decision analysis; system simulation; network planning and project scheduling; computer applications. The techniques developed are used to solve problems in transportation, water resources, structures, and construction management. Lectures: three hours per week.

## CIVI 361 Introduction to Environmental

 Engineering ( 3.5 credits)Prerequisite: ENGR 361. Ecosystems considerations, food chain, natural decomposition, and recycling; environmental problems and impact of engineering activities. Various modes of pollution, water, air, and soil contamination, noise pollution; pollution measurement and quantification. Water and waste-water physical, chemical and biological characteristics; turbidity and colour, dissolved oxygen, hardness, pH, alkalinity, organic content, sampling and analysis, chemical and biochemical oxygen demand. Basic processes of treatment: flocculation and coagulation, sedimentation, filtration. Lectures: three hours per week. Tutorial: two hours per week, alternate weeks. Laboratory: two hours per week, alternate weeks.

## CIVI 372 Transportation Engineering

 (3 credits)Prerequisite: CIVI 341. Fields of transportation engineering; transportation's roles in society; planning and design of road, rail, air, and waterway system components: terminals, right-of-way; control systems: evaluation of alternative modes and decision-making process; introduction to computer-aided design and management of systems. Lectures: three hours per week. Tutorial: one hour per week.

CIVI 381 Hydraulics ( 3.5 credits) Prerequisite: ENGR 361, 391. Basic hydrodynamics; boundary layer theory, principle of energy losses. Steady flow in open channel; uniform flow, specific energy and critical flow, transition; non-uniform flow, water surface profiles, computer applications. Flow measurement in open channel, weirs, overflow spillways. Lectures: two hours per week. Laboratory: three hours per week.

## CIVI 382 Water Supply and Waste-Water Engineering ( 3.5 credits)

Prerequisite: CIVI 381; ENGR 391 or EMAT 391. Characteristics of water and waste water. Water use cycle; population forecast, water demands. Sources of waters, surface water, ground water, water quantities and requirements. Water supply network analysis, design of distribution systems, storage, pumping. Sanitary and storm water quantities, urban hydrology. Design of sewer systems, interceptors, gravity sewers, computer applications. Lectures: two hours per week. Laboratory: three hours per week.

CIVI 432 Soil Mechanics ( 3.5 credits) Prerequisite: ENGR 244. Index properties and classification of soils. Weight-volume relationships. Soil structures. Moisture-density relationships. Permeability, deformation, and strength of soils. Principle of total and effective stresses. Steady stage seepage through isotropic soil media. Stress distribution due to external loads and analysis of total settlements. Outline of theory of consolidation. Fundamentals of stability of earth retaining walls, slopes, and footings. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.
NOTE: Students who have received credit for CIVI 431 may not take this course for credit.

CIVI $435 \quad$ Foundation Design (3.5 credits) Prerequisite: CIVI 432. Loads, bearing capacity, and settlement. Lateral pressures. Foundation drainage and water-proofing. Spread footings. Strip footings. Pile foundations. Caissons. Retaining walls. Sheet-piling walls. Braced cofferdams. Cellular cofferdams. Anchors. Lectures: two hours per week. Laboratory: three hours per week.

## CIVI 437 Advanced Geotechnical Engineering (3 credits)

Prerequisite: CIVI 432. Mechanical properties of rocks and rock formations. Underground openings in rocks. Slope stability of stratified formations. Foundations on rocks. Rock bolting. Introduction of soil dynamics. Wave propagation in one and two dimensions in elastic media. Seismic waves. Foundations subjected to dynamic loading. Theory of liquefaction. Lectures: three hours per week.

## CIVI 453 Design of Reinforced Concrete

 Structures ( 3.5 credits)Prerequisite: BCEE 343 or ENGR 343; BCEE 345 or ENGR 345. Design of long columns, columns subjected to biaxial bending, two-way slabs, flat
plates, girders, and shells. Design of frames, shear-walls, and prefabricated structures. Prestressed concrete: losses, short- and long-term deflections; design requirements for shear, flexure, bond, and anchorage. Lectures: two hours per week. Laboratory: three hours per week.

## CIVI 454 Design of Steel Structures

 (3.5 credits)Prerequisite: BCEE 343 or ENGR 343; BCEE 344 or ENGR 344. Trends and developments in structural-steel design. Framing systems. Floor systems; composite construction; plate girders. Design of braced frames, moment-resisting frames. Connections. P-Delta effects. Introduction to steel-bridge design. Lectures: two hours per week. Laboratory: three hours per week.

## CIVI 464 Environmental Impact

Assessment (3 credits)
Prerequisite: CIVI 361. Engineering activities and the environment; environmental ethics. Prediction and estimation of impact on air, water, soil quality, and biological, socio-economic, cultural environments. Water and air pollution laws, solid and hazardous waste laws. Environmental inventories, assessment preparation, and review. Federal and provincial laws and regulations on environmental assessment. Strategies for environmental compliance, resolution of environmental conflicts. Case studies. Lectures: three hours per week.

## CIVI 465 Water Pollution and Control (3.5 credits)

Prerequisite: CIVI 361. Physical, chemical, and biological characteristics of water, water quality standards, reaction kinetics and material balances, eutrophication. Containment of reactive contaminants. Natural purification processes in water systems, adsorption, absorption; diffusion and dispersion, oxidation. Large-scale transport of contaminants, single and multiple source models; modelling of transport processes, computer simulation. Introduction to groundwater pollution, sea-water intrusion. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## CIVI 466 Engineering Aspects of Chemical and Biological Processes (3 credits)

Prerequisite: CIVI 361. Introduction to water purification, chemical treatment, coagulation, disinfection, special purification methods. Primary and secondary waste-water treatment, solution and surface chemistry, microbiological consideration; reaction kinetics, diffusion processes, membrane processes, re-aeration. Biological treatment, activated sludge process, treatment and disposal; biological reactors; aerated lagoons; trickling filter; biological nutrient removal. Tertiary waste-water treatment. Lectures: three hours per week.

## CIVI 467 Air Pollution and Emission Control (3 credits) <br> Prerequisite: CIVI 361. Types of air pollutants.

Sources of air pollutants, effects of air pollutants on health, vegetation, materials, and the atmosphere; emission standards. Meteorological considerations, dispersion of pollutants in the atmosphere, distribution and cleansing of particle matter, atmospheric photochemical reactions. Particulate pollutant control, source correction, cooling treatment; control of gaseous pollutant, point sources, odour control; measurement techniques; computer applications. Lectures: three hours per week.

## CIVI 468 Waste Management (3 credits)

 Prerequisite: CIVI 361. Solid waste; source and generation, sampling and analysis, collection, transport, and storage. Waste recycling, physical and chemical reduction; drying; energy recovery; disposal of solid waste. Sanitary and secure landfill planning, site selection, design and operation; chemical and biological reactions. Hazardous waste, chemical and physical characteristics, handling, processing, transportation, and disposal. Resource recovery alternatives material exchanges, hazardous waste management facilities, incinerators, landfills. Lectures: three hours per week.
## CIVI 469 Geo-Environmental Engineering ( 3.5 credits)

Prerequisite: CIVI 361. Structure and surface chemistry of soil, ion exchange, hydrolysis equilibrium, adsorption. Biochemical degradation, toxic contaminants. Mechanical and thermodynamic equilibrium in soil. Geotechnical considerations in environmental design; soil decontamination. Barrier technologies and soil interaction. Landfill covers and leachate collection systems; subsurface investigation, soil-gas survey. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## CIVI 471 Highway and Pavement Design

 (3.5 credits)Prerequisite: CIVI 271, 372. Design criteria, including capacity and level of service; route alignment and right-of-way considerations; geometric design; earthworks and construction practices. Pavement materials and tests; design of flexible and rigid pavements; pavement management. Computer applications. Geometric and pavement design projects. Lectures: two hours per week. Laboratory: three hours per week.

## CIVI 474 Transportation Planning and Design (3 credits)

Prerequisite: CIVI 372. Transportation planning process; data collection and demand analysis; trip generation, trip distribution, modal split and route assignment; forecasting travel patterns. Design of transportation facilities: street sections, intersections, and parking areas. Computer applications and design projects. Lectures: three hours per week. Tutorial: two hours per week, alternate weeks.

CIVI 483 Hydrology ( 3.5 credits)
Prerequisite: CIVI 381. Weather elements; precipitation, stage-discharge relations; evapo-
transpiration; ground-water flow; stream-flow hydrography, unit hydrography, synthetic hydrographs; laminar flow; hydrologic routing; instantaneous hydrograph; hydraulic routing, method of characteristics, kinematic routing; statistical analysis, confidence intervals, stochastic generator, autoregressive model; applications of hydrology. Lectures: two hours per week. Laboratory: three hours per week.

## CIVI 484 Hydraulic Engineering

(3.5 credits)

Prerequisite: CIVI 381. Development of surface wate resource; basic measurements in hydraulic engineering; storage reservoirs; practical problems; run off characteristics of natural steams; control structures; economic analysis; energy dissipators; sediment transportation; elements of river engineering; navigation; control of floods; computer modelling application. Lectures: two hours per week. Laboratory: three hours per week.
NOTE: Students who have received credit for CIVI 489 may not take this course for credit.

## CIVI 490 Integrated Civil Engineering Design Project (4 credits)

Prerequisite: Minimum of 75 credits in BEng (Civil) or permission of the Department; ENCS 282. The project of each team will encompass the integrated design of at least two sub-disciplines of a civil engineering project to achieve high performance at reasonable cost. Through case studies and literature survey, students learn the information gathering and decision/design process, problem resolution, and aspects related to management, teamwork, and communication. Students registering for this course must contact the course coordinator for the detailed procedure. Lectures: two hours per week, two terms.
NOTE: Students will work in groups under direct supervision of a faculty member.

## COMPUTER ENGINEERING

## COEN 231 Introduction to Discrete <br> Mathematics (3 credits)

Prerequisite: MATH 204 (cégep Mathematics 105). Fundamental principles of counting: rules of sum and product; permutations, arrangements and combinations, the binomial theorem; combinations with repetition; distributions. Fundamentals of logic: basic connectives and truth tables; logical equivalence; the laws of logic; logical implication; rules of inference; the use of quantifiers; proofs of theorems. Sets: the laws of set theory. Boolean algebra. Relation of Boolean algebra to logical and set theoretic operations. Modulo arithmetic: representations of numbers in binary, octal and hexadecimal formats; binary arithmetic. Induction and recursion: induction on natural numbers; recursive definitions. Functions and relations: cartesian products and relations; functions; function composition and inverse functions; computational complexity. Elements of graph theory: basic definitions of graph
theory; paths, reachability and connectedness; computing paths from their matrix representation; traversing graphs represented as adjacency lists; trees and spanning trees. Lectures: three hours per week. Tutorial: one hour per week.

## COEN 243 Programming Methodology I

 (3 credits)Prerequisite: COEN 231 previously or concurrently. Computer Systems: computer organization, evolution of operating systems, programming languages and paradigms. Software Development Process: algorithms, pseudocode and control structures, primitive data types, operators, statements, flowcharts and structured programming. Module- and Procedure-oriented Programming: procedures (or methods), packages, scope rules, recursion vs. iteration, arrays, multiple-subscribed arrays, references, parameters, sorting and searching arrays. Object-Based Programming: abstract data type with class, class scope, package and object creation, constructors, selectors, modifiers, finalizers, self reference, class members, data abstraction and information hiding. Introduction to object-oriented programming concepts: superclasses, subclasses, inheritance relationship, composition vs. inheritance, polymorphism, dynamic binding, abstract and concrete classes. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 248 may not take this course for credit.

## COEN 244 Programming Methodology II (3 credits)

Prerequisite: COEN 243. Review of objectoriented programming and further concepts. Strings and Characters. Fundamentals of file and stream processing. Event-based programming: Basic GUI; event-listener; mouse, keyboard, button and action events; layout managers. Exception handling: error-handling techniques, try/catch blocks. Pointers vs. References. Addressing and indirection. Arrays and pointers. Character string processing. Dynamic data types: Revisiting new/delete. Implicit and explicit instantiations. Inheritance. Polymorphism. Templates: function templates, class templates, standard template library; containers and iterators. Abstract base classes. Virtual functions. Namespaces. Case study of a medium scale OO project: simplified analysis and design. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 249 may not take this course for credit.

## COEN 311 Computer Organization and Software (3 credits)

Prerequisite: COEN 243,312 previously or concurrently. Introduction and terminology. Overview of the functional units and the operation of a computer. Machine programming fundamentals: instruction structure, addressing modes, the assembly process, examples of architectures. Case study of a microprocessor architecture: programming model, assembler and addressing
modes, instruction set and formats; programming examples. Stacks, subroutines, macros, exceptions, interrupts. Program and interrupt driven I/O. Memory management. Introduction to system software: system kernel, system services, assemblers, compilers, linkers and loaders, userlevel view of operating systems. Lectures: three hours per week. Tutorial: one hour per week.

## COEN 312 Digital Systems Design I

 (3.75 credits)Prerequisite: COEN 231. Logic gates and their use in the realization of Boolean algebra statements; logic minimization, multiple output circuits. Designing with MSI and LSI chips, decoders, multiplexers, adders, multipliers, programmable logic devices. Introduction to sequential circuits; flip-flops. Completely specified sequential machines. Machine equivalence and minimization. Implementation of clock mode sequential circuits. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

## COEN 313 Digital Systems Design II (3.75 credits)

Prerequisite: COEN 312. Two-level and multilevel logic optimization techniques. Hardware description languages (VHDL) for synthesis and simulation. Asynchronous design. Algorithmic state machines. Clocking and clock skew. Metastability. Self-timed concepts. Finite state machine (FSM) optimization. State reduction. FSM partitioning. Programmable logic devices and field programmable gate arrays. Data path and control design for processors. Testing issues. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.
NOTE: Students who have received credit for COEN 414 may not take this course for credit.

## COEN 315 Digital Electronics

(3.75 credits)

Prerequisite: ELEC 311. Modelling of semiconductor devices for analysis and simulations. MOS, CMOS, TTL, Schottky TTL, ECL, and GaAs circuits. Switching speeds, power dissipation, noise immunity, fan-in and fan-out. Flip-flops and multi-vibrators. Interface and BiCMOS circuits. $D / A$ and $A / D$ converters. Static and dynamic random-access memories. Read-only memories and programmable logic devices and arrays. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.
NOTE: Students who have received credit for COEN 412 may not take this course for credit.

## COEN 316 Computer Architecture and Design (3 credits)

Prerequisite: COEN 311, 312. Review of basic computer architecture designs. Fundamentals of computer design and performance. Cost issues. Instruction set design principles. Memory hierarchies: registers, caches, and virtual memories. Basic processor implementation issues. High
performance computing issues such as pipelining, superscalar, and vector processing. Input/output subsystem designs. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COEN 416 may not take this course for credit.

## COEN 320 Introduction to Real-Time Systems (3 credits)

Prerequisite: COMP 346. Fundamentals of realtime systems: definitions, requirements, design issues and applications. Real-time operating systems (RTOS) feature: multitasking, process management, scheduling, interprocess communication and synchronization, real-time memory management, clocks and timers, interrupt and exception handling, message queues, asynchronous input/output. Concurrent programming languages: design issues and examples, POSIX threads and semaphores. Introduction to realtime uniprocessor scheduling policies: static vs. dynamic, pre-emptive vs. non-pre-emptive, specific techniques - rate-monotonic algorithm, earliest-deadline-first, deadline monotonic, least-laxity-time-first; clock-driven scheduling. Design and specification techniques - Finite state machine based State-chart, Dataflow diagram, Petri nets. Reliability and fault-tolerance. Case studies of RTOS - QNX, VxWorks, and research prototypes. Lectures: three hours per week. Tutorial: one hour per week.

## COEN 345 Software Testing and Validation (4 credits)

Prerequisite: SOEN 342. Overview of the three phases and deliverables of a project. Validation vs. verification, reviews, walkthrough. Testing: acceptance testing, integration testing, module testing, etc. Writing stubs, etc. Performance testing. Role of formal methods. Code inspection. Defect tracking. Causality analysis. Software Metrics and quality management. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

## COEN 417 Microprocessor Systems

 (4.5 credits)Prerequisite: COEN 311, 312. Introduction to microprocessor interfacing. Bus functions, bus interconnections, synchronous and asynchronous bus. Signal flow and data transfer, decoding for I/O and memory, memory organization and structures. Interfacing examples; parallel interfacing, serial interfacing, the interrupt system; bus arbitration and DMA. Analog-to-digital and digital-toanalog structures and interfacing. Floppy disc and CRT controllers; bus standards; local area networks. Benchmarking and comparative study of recent microprocessors. Lectures: three hours per week. Laboratory: three hours per week.

## COEN 421 Embedded Systems and Software Design (4.5 credits)

Prerequisite: COEN 320, 417; SOEN 343. Introduction to real-time modelling languages. Introduction to embedded systems design using a unified view of software and hardware. Pro-
cessor technologies: general purpose, single purpose, application-specific. Memory. Interfacing. Design technologies: hardware-software co-design/co-synthesis/co-simulation. Real-time debugging and monitoring techniques. Real-time communication protocols. Introduction to clock synchronization and group communication techniques. A multi-component project provides a hands-on experience in designing, implementing, and testing a real-time embedded system. Lectures: three hours per week. Laboratory: three hours per week.

## COEN 445 Communication Networks and Protocols (4 credits)

Prerequisite: COEN 320; SOEN 343. Network topologies. Communications protocols basics. Local Area Networks (LANs). Wide Area Networks (WANs). Layered architecture standards (OSI and TCP/IP) and protocols. Broadband communications. Internetworking. Lectures: three hours per week. Laboratory: two hours per week.
NOTE: Students who have received credit for ELEC 463 may not take this course for credit.

COEN 451 VLSI Design I (4 credits)
Prerequisite: COEN 312 or COMP 327;
ELEC 311. Review of IC development and realization of logic elements. CMOS inverter, logic levels, power and speed considerations, area of implementation. Electrical analysis using SPICE, input, output, delay time and loading. CMOS NAND/NOR gates, fan-out limitations, and layout considerations. Simple CMOS process, design rules, and layout exercises. CMOS logic system design and analysis using SPLICE. Logic simulation and testing specification of input, output, and delay for fault simulation. Other CAD facilities for logic simulation and testing. Gate arrays and semi-custom CMOS design considerations. CMOS dynamic VLSI circuits; CMOS memories. NMOS dynamic and static circuit design: NMOS memories. Hierarchical approach to digital design of VLSI circuits. Lectures: three hours per week. Laboratory: two hours per week.
NOTE: Students who have received credit for ENCS 454 may not take this course for credit.

COEN 452 VLSI Design II (4 credits)
Prerequisite: COEN 451 or ENCS 454.
Hardware description language (VHDL). Modelling with VHDL and Verilog. Synthesis techniques. Behavioural and RTL synthesis. Programmable logic, Devices (PLD), synthesis with PLD. Applications. Lectures: three hours per week. Laboratory: two hours per week. NOTE: Students who have received credit for ENCS 455 may not take this course for credit.

## COEN 490 Computer Engineering Project

 (4 credits)Prerequisite: Minimum of 75 credits in BEng (Computer) or permission of the Department; ENCS 282. Students are assigned to groups, and work together under faculty supervision to
solve a complex interdisciplinary design problem - typically involving communications, control systems, electromagnetics, power electronics, software design, and/or hardware design. The project fosters teamwork between group members and allows students to develop their project management, technical writing, and technical presentation skills. Tutorial: one hour per week, two terms. Equivalent laboratory time: four hours per week, two terms.
NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.

## COEN 498 Topics in Computer Engineering (3 credits)

Prerequisite: Permission of the Department. The course, when offered, will include topics which complement elective courses in computer engineering and computer science. Lectures: three hours per week.

## ELECTRICAL ENGINEERING

ELEC 251 Fundamentals of Applied Electromagnetics (3 credits)
Prerequisite: ELEC 273 or ENGR 273; EMAT 233 previously or concurrently. Electric charge, Coulomb's law, electrostatic forces, electric field, Gauss' law, electric potential, stored energy. Dielectrics, properties of materials in electric fields. Electric current, conduction in a vacuum and in material media, displacement current, magnetic field of a current, force on a current-carrying wire, magnetic induction, electromotive force, energy stored in a magnetic field. Magnetism in material media, magnetic circuits. Time-varying fields. Capacitance, resistance, inductance, elements of electric circuits. Lectures: three hours per week. Tutorial: one hour per week.

## ELEC 261 Complex Variables for Electrical and Computer Engineers (3 credits)

Prerequisite: COEN 231; EMAT 213. Algebra of complex numbers; functions and inverse functions of complex variables. Derivatives and Cauchy-Reimann conditions. Analytic and harmonic functions. Exponential, trigonometric, hyperbolic, and logarithmic functions. Complex line integrals, Cauchy-Goursat theorem, Cauchy integral formula. Taylor and Laurent series. Residue theorem. Applications to signals and systems: the Laplace transform; linear difference equations and their solution using Z transforms. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for EMAT 252 may not take this course for credit.

## ELEC 273 Basic Circuit Analysis (3.75 credits)

Prerequisite: EMAT 213 previously or concurrently; PHYS 205 previously; PHYS 225 previously or concurrently. Units: current, voltage, power, and energy. Elementary wave-forms.

Time averages. Ohm's law. KVL and KCL. Ideal sources. Mesh and node analysis of resistive circuits. Network theorems. Inductors and capacitors and their response to the application of elementary waveforms. Transient response of simple circuits. Natural frequency and damping. Initial conditions. Steady state AC analysis: resonance, impedance, power factor. Introduction to three phase power, delta and $Y$ connections. Ideal operational amplifiers. Ideal transformers. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.
NOTE: Students who have received credit for ENGR 273 may not take this course for credit.

ELEC 311 Electronics I ( 4.5 credits)
Prerequisite: ELEC 273 or ENGR 273. Diodes: the ideal diode; terminal characteristics of junction diodes; analysis of diode circuits; the small signal model and its application; operation in the reverse-breakdown region - Zener diodes; rectifier circuits; limiting and clamping circuits. Bipolar junction transistors: structure and physical operation; DC analysis: biasing considerations: small signal analysis and parameters; hybrid $\pi$ model, T model; common base, common emitter, common collector configurations. Field-effect transistors: structure and physical operation; DC analysis; biasing considerations; small signal analysis and parameters; hybrid $\pi$ model, T model; common gate, common source, common collector configurations. Differential and multistage amplifiers: differential pair; differential gain; common-mode gain and common mode rejection ratio (CMRR). Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week.

ELEC 312 Electronics II ( 4.5 credits) Prerequisite: ELEC 311, 361. High frequency models: s-domain analysis, transfer functions; hybrid $\pi$ model at high frequency; common base, common emitter, common collector configurations; common gate, common source, common collector configurations; differential BJT pairs at high frequency; MOS differential pair at high frequency. Feedback: general feedback structure; properties of negative feedback; the four basic feedback configurations: series-shunt, series-series, shunt-series, shunt-shunt; loop gain and stability problems; effect of feedback on amplifier poles; bode plots and frequency compensation. Power amplifiers: classification and output stages; class A, B, C, and AB amplifiers; biasing the class $A B$ amplifier; variations on the class $A B$ configuration; IC power amplifiers and MOS power transistors. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week.

## ELEC 321 Introduction to Semiconductor Materials and Devices (3.5 credits)

Fundamentals underlying optical and electronic devices. The structure and growth of crystals.

The energy band model for elemental and compound semiconductors. Electronic and optical properties of semiconductors. Electroluminescence and photoluminescence. The semiconductor in equilibrium. Carrier transport and non-equilibrium phenomena. Introductions to junctions and devices. The laboratory demonstrates the basic electrical and optical properties of semiconductor materials. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, every three weeks.

## ELEC 331 Fundamentals of Electrical Power Engineering ( 3.75 credits)

Prerequisite: ELEC 251, 273. Review of fundamentals of AC circuit analysis. Overview of power systems. Three-phase circuits: balanced threephase circuits with star and delta connected loads, power measurements. Magnetic circuits. Transformers. Power conversion techniques: single phase $A C / D C$ rectifiers, $D C / D C$ choppers and DC/AC converters. DC machines: Operating principle, separately excited DC motor, torque speed characteristics and control methods using rectifiers and choppers. Induction machines: Theory of three-phase induction machines, equivalent circuit parameters, efficiency, torque speed characteristics and control methods using inverters. Overview of power distribution systems. Safety codes. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

## ELEC 351 Electromagnetic Waves and Guiding Structures (3 credits)

Prerequisite: ELEC 251; ELEC 332 or EMAT 332. Maxwell's equations. Differential forms of the laws of electromagnetism. Boundary conditions. Power and energy. Uniform plane waves. Transmission line theory. Rectangular waveguides. Antennas. Lectures: three hours per week. Tutorial: one hour per week.

## ELEC 353 Basic Electromagnetics and Transmission Line Theory (3 credits)

Prerequisite: ELEC 261 or EMAT 252; ELEC 273 or ENGR 273. Laws of electromagnetism, including differential forms. Boundary conditions.
Maxwell's equations. Plane Waves. Transmission line theory. Antennas. Lectures: three hours per week. Tutorial: one hour per week.

ELEC 361 Signals and Systems (3 credits) Prerequisite: ELEC 261. System functions. Impulse response. Convolution. The exponential and trigonometric forms of the Fourier series. Frequency domain plots of Fourier series coefficients. Mean square convergence. Gibbs' phenomenon. The Cauchy limit form of the Fourier transform. Transforms of periodic functions. Relation between the Fourier and Laplace transforms. Frequency domain plots. Difference equations. Relation between the $Z$ transform and the Fourier and Laplace transforms. Unit pulse response. Numerical convolution. Discrete Fourier transform.

Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for EMAT 312 may not take this course for credit.

## ELEC 362 Vector Calculus and Partial Differential Equations (3 credits)

Prerequisite: EMAT 213, 233. Review of vector calculus. Partial differential equations. Boundary value problems. Separation of variables. Fourier series solutions in one and two dimensions. Laplace and Poisson equations. One- and twodimensional wave equations in orthogonal coordinate systems. Scalar and vector potentials and fields. Examples from heat flow, electrostatics and magnetostatics. Bessel and Legendre functions. Power series solutions; method of Frobenius. Applications: vibrating string, vibrating membrane in rectangular and cylindrical coordinates. SturmLiouville problem. Eigenvalues and eigenfunctions. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for EMAT 332 may not take this course for credit.

## ELEC 370 Modelling and Analysis of Physical Systems ( 3.75 credits)

Prerequisite: ENGR 311 or ELEC 361 previously or concurrently; ELEC 273 or ENGR 275. Definition and classification of physical systems. Definition of through and across variables. Modelling of system components: electrical, mechanical, fluid, and thermal. Limits of linear models and linear representations of nonlinear components. Modelling of systems including mixed systems. Analysis techniques: review of first and second order systems; mesh and nodal analysis in the Laplace transform domain; impedance and transfer functions; two-port parameters; indefinite admittance matrix; signal flow graphs; identification of analysis techniques used for SPICE. Fundamentals of frequency response: introduction to filters; Butterworth and Chebyshev filter functions. Introduction to state variable analysis. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks. NOTE: Students who have received credit for ENGR 274 or 370 , or ELEC 341 or MECH 370 may not take this course for credit.

## ELEC 372 Fundamentals of Control Systems ( 3.75 credits)

Prerequisite: ELEC 370 or ENGR 370. Mathematical models of control systems. Characteristics, performance, and stability of linear feedback control systems. Root-locus methods. Frequency response methods. Stability in the frequency domain. Design and compensation of feedback control systems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks. Tutorial: one hour per week.
NOTE: Students who have received credit for ENGR 372 or MECH 371 may not take this course for credit.

ELEC 411 Pulse and Waveform Generation ( 3.75 credits)
Prerequisite: ELEC 312, 361. Modelling and techniques of analysis. Multivibrator circuits: analysis, design, and applications. Oscillator circuits. Linear sawtooth generators. Pulse transformers and blocking oscillators. Negativeresistance devices and some applications. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 421 Solid State Devices ( 3.75 credits) Prerequisite: ELEC 321. Junction theory (PN junctions, Schottky and ohmic contacts, heterojunctions). Diodes and bipolar transistors. Lightemitting diodes, photodetectors, solar cells, and fibre optics. Lasers: operating principles and applications in optoelectronic devices. Planar silicon junctions and transistors will be designed, fabricated and evaluated in the laboratory, including resistivity measurements, semiconductor cleaning, oxidation, diffusion, photolithography, etching, metallization, and comparison of design with experimental results. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ELEC 422 Design of Integrated Circuit Components ( 3.75 credits)

 Prerequisite: ELEC 421. Structures, characteristics and design of MOS capacitors and MOSFETs. Structures, characteristics and design of laser diodes. Optoelectronic devices and integrated circuits. Planar MOS devices, including capacitors and MOSFETs will be designed, fabricated, and evaluated in the laboratory. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.
## ELEC 424 VLSI Process Technology (3.75 credits)

Prerequisite: ELEC 311, 321. Introduction to basic VLSI technologies; crystal growth, thermal oxidation, diffusion, ion implantation, chemical vapour deposition, wet and dry etching, and lithography. Layout, yield, and VLSI process integration. The lab demonstrates a semiconductor device fabrication process. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ELEC 430 Appareillage électrique (3.75 crédits)

Préalable : ELEC 331. Éléments d'un réseau de transport. Lignes: modélisation et paramètres. Transformateurs : circuits équivalents, pertes, enclenchement, protection. Disjoncteurs : fonctionnement et dimensionnement. Équipements de compensation : condensateurs, branchement série et shunt, inductances. Coordination d'isolement. Cours : trois heures par semaine. Laboratoire : trois heures à toutes les deux semaines.

ELEC 431 Electrical Power Systems ( 3.75 credits)
Prerequisite: ELEC 331. Inductance, capacitance,
resistance of polyphase transmission lines; current and voltage relations of transmission lines; load flow studies; symmetrical and unsymmetrical faults; power system stability. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ELEC 432 Control of Electrical Power Conversion Systems

 (3.75 credits)Prerequisite: ELEC 372 or ENGR 372;
ELEC 331. Basic considerations and control requirements. Control system principles and structures. Controller characteristics and operation. Static power conversion systems. Electromechanical systems and electrical machine modelling. Control system design. Applications to electric motor drives and typical power conversion systems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 433 Power Electronics ( 3.75 credits) Prerequisite: ELEC 311, 331. Introduction to power electronics: definition, applications and classification of converters. Review of analytical techniques. Overview of power semiconductor switches. AC/DC rectifiers. Switch mode DC/DC converters. Resonant mode DC/DC converters. $D C / A C$ inverters. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ELEC 435 Electromechanical Energy Conversion Systems (3 credits)

Prerequisite: ELEC 331. Lumped parameter concepts of electromechanics. Energy, co-energy in the derivation of torques and forces. Examples of electric machines: dc, synchronous and induction types. Steady-state, transient and stability analysis. Power electronic controllers. Lectures: three hours per week.

## ELEC 438 Électricité industrielle ( 3.75 crédits)

Préalable : ELEC 331. Structure des réseaux électriques industriels. Niveau de tension. Installations électriques, codes et normes. Courtcircuits, protection et coordination. Mise à la terre. Qualité de l'onde. Facteur de puissance, tarification et gestion de l'énergie électrique. Cours : trois heures par semaine. Laboratoire : trois heures à toutes les deux semaines.

## ELEC 441 Analog Filter Design

(3.75 credits)

Prerequisite: ELEC 370 or ENGR 370. Two-port networks and parameters. Magnitude and phase approximation. Butterworth and Chebyshev filters. Realization of high-order transfer functions. GIC and FDNR secord order active RC filters. Op-amp based designs. Monolithic continuous time filter. OTA based designs. Monolithic sampled data filters. Switched capacitor filters. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ELEC 442 Introduction to Digital Signal

 Processing ( 3.75 credits)Prerequisite: ELEC 361. Review of discrete-time system properties and associated mathematical tools. Properties of linear-time invariant digital filters. Common digital filter structures. Common approaches to the design of digital filter transfer functions meeting time or frequency domain specifications. Computer-aided design and simulation of digital filters. $A / D$ and $D / A$ converters. Effect of finite word lengths. Description of a typical DSP chip. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ELEC 453 Microwave Engineering (3.75 credits)

Prerequisite: ELEC 370 or ENGR 370; ELEC 351. Properties of waveguides, striplines, and microstrips. Scattering parameters. Butterworth and Chebyshev impedance transformers. Microwave couplers, cavities, and Fabry-Perot resonators. Periodic structures. Microwave filter design. Faraday rotation and non-reciprocal devices. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 454 Optical Electronics ( 3.75 credits) Prerequisite: ELEC 370 or ENGR 370; ELEC 351. The Gaussian beam. Optical properties of dielectrics. Slab and fibre waveguides. Multilayer optical impedance transformation. Optical couplers, gratings, and distributed feedback structures. Principles of electro-optic devices. Interferometric devices. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 455 Acoustics (3 credits)
Prerequisite: ELEC 351. Sound generation and propagation in elastic media; conversion between acoustical, electrical, and mechanical energy. Lumped-parameter approximations, sound in rooms, underwater acoustics, microphones; loudspeakers and audio communications problems; noise and vibration control problems. Lectures: three hours per week.

## ELEC 456 Antennas (3 credits)

Prerequisite: ELEC 351. Antenna fundamentals and definitions. Radiation integrals. Dipoles and loops. Arrays. Antenna self and mutual impedance. Matching techniques. Travelling wave antennas. Broadband antennas. Equivalence principle. Aperture antennas. Antenna measurement techniques. Lectures: three hours per week.

## ELEC 457 Design of Wireless RF Systems (3 credits)

Prerequisite: ELEC 453. Introduction to wireless systems. Noise and distortion in microwave systems. Antennas and propagation. Amplifiers Mixers. Transistor oscillators and frequency synthesizers. Modulation techniques. Receiver design. Use of RF CAD tools. Lectures: three hours per week.

ELEC 461 Fundamentals of Telecommunications Systems ( 3.75 credits)
Prerequisite: ELEC 361; ENGR 371. Introduction to basic telecommunications concepts and systems. Analog communications: AM and FM, system level consideration of noise-bandwidth tradeoffs. Digital communications: sampling and quantization, digital modulation techniques, the matched filter. Redundancy encoding. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ELEC 462 Digital Transmission Systems (3.75 credits)

Prerequisite: ELEC 461, 471. Properties of transmission media: wire, coax, optical fibre, radio, satellite. Fundamentals of digital transmission; properties of noise, optimum receiver concepts. Performance of modulation techniques: PAM, PCM, PSK, FSK, QAM, Spread spectrum. Error control coding; ARQ and FEC. Basic concepts of information theory. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ELEC 463 Telecommunication Networks (3 credits)

Prerequisite: ELEC 461, 471. Introduction to layered network architecture; data link control and communication channels. Delay models in data networks; simple queueing systems; multiaccess communications; ALOHA, CSMA, reservation schemes, conflict-free access schemes. Satellite, packet radio networks, token rings and polling; routine and flow control; ISDN. Lectures: three hours per week.
NOTE: Students who have received credit for COEN 445 may not take this course for credit.

## ELEC 464 Communications Systems

 Engineering (3.75 credits)Prerequisite: ELEC 462. Communications system topologies: Point-to-Point, Point-to-Multipoint, Access and Backbone. Multiple-Access techniques and communications resource sharing: FDMA, TDMA, CDMA, system operation/design and related issues, performance comparison, switching techniques, switched network and signalling. Wireline communications systems: issues, system design, example systems: DSL, HFC, SONET, ATM. Wireless communications systems: issues, link engineering, system design, example systems: Satcom, Terrestrial Microwave: PCS, Cellular, LMDS/LMCS. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

## ELEC 465 Networks Security and Management ( 3.75 credits)

Prerequisite: COEN 445 or ELEC 463 and COMP 346. Network security threats. Importance of security policy. Principles and techniques of encryption and authentication. Network security protocols: X509, IPSEC (Internet Protocol Security Architecture). Network management: issues, architectures, and protocols. Fault
management, configuration management, security management, performance management, and accounting management. Management Information Bases (MIBs). SNMP and its evolution. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 471 Random Processes (3 credits) Prerequisite: ENGR 371; ELEC 361. Definition and classification of random processes; ergodicity and stationarity; auto and cross correlations; power spectral density Gaussian processes; linear transformations, estimation, and prediction; nonlinear transformations (full- and halfwave rectification); diffusion processes, Markov chains, Markov processes, Poisson processes, application to queueing. Lectures: three hours per week.

## ELEC 472 Performance Evaluation of Telecommunication Systems

 (3.5 credits)Prerequisite: ELEC 463. Performance measures: delay, throughput, loss probability, error probability. Performance evaluation techniques: analysis, simulation, queueing models: birth-death models, imbedded Markov chains, multidimensional Markov chains, Markov modulated processes. Simulation: event and time-driven simulations, variance reduction techniques, software (e.g. OPNET). Lectures: three hours per week. Project: one hour per week.

## ELEC 473 Overview of Communications

 Systems (3.75 credits)Prerequisite: ELEC 461. Broad perspective of the overall operation of a telecommunications company (systemic approach). Introduction to most of the engineering-related aspects of managing a telecommunications company, be it a conventional or wireless telephone company, a competitive toll or a local service company. Overview of the elements that must be considered by engineers working in these fields, primarily in terms of the Canadian industry, including Canadian telecommunications regulation, but also in terms of the market globalization of telecommunications. Impact of emerging telecommunications technologies. Project work will consist of a business case study. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.
NOTE: This course is required for and restricted to those students in the telecommunications option who have been accepted by the International Institute for Telecommunications.

## ELEC 481 Linear Systems ( 3.75 credits)

Prerequisite: ELEC 372 or MECH 371 or ENGR 372. Review of matrix algebra. State-space description of dynamic systems: linearity, causality, time-invariance, linearization. Solution of state-space equations. Transfer function representation. Discrete-time models. Controllability and observability. Canonical forms and minimal-order realizations. Stability. Stabilizability and pole placement. Linear
quadratic optimal control. Observer design. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.
NOTE: Students who have received credit for ENGR 471 may not take this course for credit.

## ELEC 482 System Optimization

(3.75 credits)

Prerequisite: ENGR 391 or EMAT 391. Linear least squares. Properties of quadratic functions with applications to steepest descent method, Newton's method and Quasi-Newton methods for nonlinear optimization. One-dimensional optimization. Introduction to constrained optimization, including the elements of Kuhn-Tucker conditions for optimality. Least $p^{\text {th }}$ and mini-max optimization. Application of optimization techniques to engineering problems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.
NOTE: Students who have received credit for ENGR 472 may not take this course for credit.

## ELEC 490 Electrical Engineering Project

 (4 credits)Prerequisite: Minimum of 75 credits in BEng (Electrical) or permission of the Department; ENCS 282. Students are assigned to groups, and work together under faculty supervision to solve a complex interdisciplinary design problem - typically involving communications, control systems, electromagnetics, power electronics, software design, and/or hardware design. The project fosters teamwork between group members and allows students to develop their project management, technical writing, and technical presentation skills. Tutorial: one hour per week, two terms. Equivalent laboratory time: four hours per week, two terms.
NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.

## ELEC 498 Topics in Electrical

 Engineering (3 credits)Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Electrical and Computer Engineering Department. The course content may vary from offering to offering and will be chosen to complement elective courses available in a given year.

## INDUSTRIAL ENGINEERING

## INDU 211 Introduction to Production and Manufacturing Systems (3 credits)

History of industrial engineering. Role of industrial engineers. Types of manufacturing and production systems. Material flow systems. Job design and work measurement. Introduction to solution methodologies for problems which relate to the design and operation of integrated production systems of humans, machines, information, and materials. Lectures: three hours per week.

## INDU 311 Simulation of Industrial

 Systems (3.5 credits) Prerequisite: ENGR 371. Modelling techniques in simulation; application of discrete simulation techniques to model industrial systems; random number generation and testing; design of simulation experiments using different simulation languages; output data analysis. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks. Tutorial: one hour per week.INDU 313 Industrial Economics (3 credits) Prerequisite: ACCO 220. Economic analysis for engineering decision making; the finance function in an industrial enterprise, time value of money; basic interest formulas; annual cost comparison; present value analysis; rate of return; depreciation and taxes; multiple alternatives; mathematical models for equipment replacement; break-even, sensitivity, and risk analysis; introduction to decision analysis; concepts of cost engineering. Lectures: three hours per week.

## INDU 320 Production Engineering (3 credits)

Prerequisite: INDU 323. The systems approach to production. Interrelationships among the component blocks of the system: forecasting, aggregate planning, production, material and capacity planning, operations scheduling. An overview of integrated production planning and control including MRP II, Just in Time manufacturing (JIT). Lectures: three hours per week.

## INDU 323 Industrial Operations Research (3 credits)

Prerequisite: EMAT 213, 233. An introduction to deterministic mathematical models with emphasis on linear programming. Applications to production, logistics, and service systems. Computer solution of optimization problems. Lectures: three hours per week.

## INDU 330 Engineering Management (3 credits)

Organizational structures, their growth and change. Motivation, leadership, and group behaviour. Design of alternatives for improving organizational performance and effectiveness. Planning, organization and management of engineering projects. Management for total quality. Lectures: three hours per week.

## INDU 372 Quality Control and Reliability

 (3 credits)Prerequisite: ENGR 371. Importance of quality; total quality management; statistical concepts relevant to process control; control charts for variables and attributes; sampling plans. Introduction to reliability models and acceptance testing; issues of standardization. Lectures: three hours per week.

INDU 410 Safety Engineering ( 3.5 credits) Prerequisite: MECH 221; ENGR 361. Engineering design for the control of workplace hazards. Occupational injuries and diseases. Codes and standards. Workplace Hazardous Materials Infor-
mation Systems (WHMIS). Hazard evaluation and control. Design criteria. Risk assessment. Safety in the manufacturing environment. Applications in ventilation, air cleaning, noise and vibration. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## INDU 411 Computer Integrated Manufacturing ( 3.5 credits)

 Prerequisite: MECH 311. Concepts and benefits of computer integrated manufacturing (CIM). Design for manufacturing. Computer-aided design, process planning, manufacturing (computer numerical control parts programming), and inspection. Robots in CIM. Production planning and scheduling in CIM. System integration. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.
## INDU 412 Human Factors Engineering

 (3.5 credits)Prerequisite: ENGR 371; INDU 320 previously or concurrently. Elements of anatomy, physiology, and psychology; engineering anthropometry; human capacities and limitations; manual material handling; design of workplaces; human-machines system design; design of controls and displays; shift work. Applications to a manufacturing environment. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## INDU 421 Facilities Design and Material

Handling Systems ( 3.5 credits)
Prerequisite: INDU 320. An introduction to planning and design of production and manufacturing. Facility layout and location. Material handling systems and equipment specifications. Computeraided facilities planning. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

INDU 423 Inventory Control ( 3.5 credits) Prerequisite: INDU 320. Inventory analysis and control systems; the role of forecasting in controlling inventories; the role of inventories in physical distribution; supply chain management; work in process inventories; inventory in just-in-time manufacturing systems. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## INDU 430 Advanced Operations

Research ( 3 credits)
Prerequisite: INDU 323. Integer programming (IP), including modelling and enumerative algorithms for solving IP problems; post-optimality analysis. Network flows, dynamic programming and nonlinear programming. Applications in the design and operation of industrial systems. Lectures: three hours per week.
INDU 440 Concurrent Engineering (3 credits)
Prerequisite: MECH 311. Introduction: objectives, definitions, impact on product development; process modelling and optimization; forming of engineering team; selection of techniques,
methodology, and tools; market design focus; development time management; process integration; case studies; future trends. Lectures: three hours per week.

INDU 463 Industrial Automation (3 credits) Prerequisite: ELEC 372 or ENGR 372 previously or concurrently. Introduction to mechanization of industrial processes such as machining, material handling, assembling, and quality control; selection of actuators and sensors for mechanization; design of sequential control circuits using classical methods, ladder diagram, travel-step diagram and cascade method; specifying control sequences using GRAFCET and FUP; special purpose circuits such as emergency circuits, timers, and programmable logic controllers (PLCs); case studies dealing with typical industrial manufacturing processes and computer simulation. Lectures: three hours per week.

## INDU 466 Decision Models in Service Sector (3 credits)

Prerequisite: ENGR 371; INDU 320. The course surveys applications of decision models in the service sector. Efficiency and effectiveness issues in the service sector such as police deployment, municipal resource allocation, health care, and criminal justice models are covered. Case studies from Canada and other countries are discussed using operations research, operations management, and statistical techniques. Lectures: three hours per week.
NOTE: This is the same course as DESC 466 with the exception of prerequisites.

## INDU 471 Stochastic Models in Industrial

 Engineering (3 credits)Prerequisite: ENGR 371. Overview of probability theory; probability distributions; exponential model and Poisson process; discrete-time and continuous-time Markov chains; classification of states; birth and death processes; queueing theory. Application to industrial engineering problems. Lectures: three hours per week. NOTE: Students who have received credit for INDU 371 may not take this course for credit.

## INDU 475 Advanced Concepts in Quality

 Improvement (3 credits)Prerequisite: INDU 372. Statistical experimental design issues such as randomized blocks, factorial designs at two levels, applications on factorial designs, building models, Taguchi methods. Lectures: three hours per week.

INDU $490 \quad$ Capstone Industrial Engineering Design Project (4 credits)
Prerequisite: 75 credits in the program; ENGR 410 concurrently. A supervised design, simulation or experimental capstone design project including a preliminary project proposal with complete project plan and a technical report by each student at the end of the Fall Term, a final report by the group and individual oral presentation at the end of the Winter Term. Lectures: one hour per week, one term. Equivalent laboratory
time: three hours per week, two terms. NOTE: Students will work in groups under direct supervision of a faculty member.
NOTE: Students who have received credit for INDU 480 may not take this course for credit.

## INDU 498 Topics in Industrial Engineering (3 credits)

Prerequisite: Permission of the Department chair. This course may be offered in a given year upon the authorization of the Mechanical and Industrial Engineering Department. The course content may vary from offering to offering and will be chosen to complement the elective courses available in the Industrial Engineering program. Lectures: three hours per week.

## MECHANICAL ENGINEERING

## MECH 211 Mechanical Engineering Drawing (3 credits) <br> Drawing as a communicating means. The third

 and the first angle views. Orthographic projection of points, lines, planes and solids. Principal and auxiliary views. Views in a given direction axonometric views. Intersection of planes and solids, development of surfaces. Sectional views and drafting practices. Dimensioning, size tolerancing and fits. Computer-aided drawing and solid modelling. Working drawings - detail and assembly drawing. Design practice. Lectures: two hours per week. Tutorial: one hour per week. Laboratory: two hours per week.
## MECH 215 Programming for Mechanical and Industrial Engineers I (3 credits)

Prerequisite: MATH 204 (cégep mathematics 105); COMP 201. Writing simple programs using assignment and sequence. Variables. Simple types. Operators and expressions. Conditional and repetitive statements. Input and output. Simple functions. Program structure and organization. Definition and scope. Data abstraction and encapsulation. Introduction to classes and objects. Constructors. Examples and assignments will be relevant to engineering. Lectures: three hours per week. Tutorial: one hour per week.

## MECH 216 Programming for Mechanical and Industrial Engineers II (3 credits)

Prerequisite: MECH 215. Class definitions. Designing classes and member functions. Class libraries and their uses. Input and output. Program development. Introduction to software engineering. Specification and implementation. Inheritance. Examples and assignments will be relevant to engineering. Lectures: three hours per week. Tutorial: one hour per week.
MECH 221 Materials Science (2 credits) Prerequisite: CHEM 205 (cégep Chemistry 101). Relationships between properties and internal structure, atomic bonding; molecular, crystalline and amorphous structures; crystalline imperfections and mechanisms of structural change;
microstructures; structures and mechanical properties of polymers. Lectures: two hours per week. Tutorial: two hours per week.
NOTE: Students who have received credit for ENGR C221 may not take this course for credit.

## MECH 311 Manufacturing Processes

 (3.5 credits)Prerequisite: MECH 313. Fundamentals of manufacturing processes and their limitations, metrology, machine shop practice, safety and health considerations, forming, machining and casting processes, welding and joining, plastic production, and non-conventional machining techniques. Laboratory includes use of basic machines, preparation of shop drawings with emphasis on production and field trips to local industries. Lectures: three hours per week. Tutorial: four hours per week, alternate weeks, including industrial visits. Laboratory: two hours per week, alternate weeks.

## MECH 313 Machine Drawing and Design (3 credits)

Prerequisite: MECH 211. The use of drawings and other graphical methods in the process of engineering design. Industrial standards and specifications, standard components and their use in product design. Detailed study of standard machine elements and assemblies, including various types of mechanical drives, cams, clutches, couplings, brakes, seals, fasteners, springs, and bearings; their representation and function in design and working drawings. Dimensioning and tolerance systems related to manufacturing processes, interchangeability, quality control, patent procedures. Pencil thinking and computer graphics in the design process. Computer-aided machine drawing. A student design project will be an integral part of this course. A four-hour introduction to machine shop techniques forms part of the tutorial. Lectures: three hours per week. Tutorial: two hours per week.

## MECH 321 Properties and Failure of Materials ( 3.5 credits)

Prerequisite: MECH 221. The service capabilities of alloys and their relationship to microstructure as produced by thermal and mechanical treatments; tensile and torsion tests; elements of dislocation theory; strengthening mechanisms; composite materials. Modes of failure of materials; fracture, fatigue, wear, creep, corrosion, radiation damage. Failure analysis. Material codes; material selection for design. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

## MECH 341 Kinematics and Dynamics of Mechanisms and Manipulators

 (2.5 credits)Prerequisite: EMAT 233; ENGR 243. Geometry of motion and mobility criteria; planar and spatial mechanisms; general relationship governing relative motion, displacement, velocity, acceleration and Coriolis acceleration. Vector calculus, complex vectors, and graphical methods for velocity
and acceleration. Instantaneous centres; line of centres method for velocity determination. Static and dynamic force analysis of planar mechanisms; effect of friction forces; static force-torque relationship for manipulators; virtual work method; dynamics of manipulators. Lectures: two hours per week. Tutorial: two hours per week, alternate weeks. Laboratory: two hours per week, alternate weeks.

MECH 342 Theory of Machines ( 2.5 credits)
Prerequisite: MECH 341. Cam kinematics; cam layout; basic follower motions; pressure angle; cam curvature constraints. Velocity, acceleration and jerk of cam followers. Kinematics of spur gears; standard teeth-layout of gear and pinion; involutometry; contact ratio; non-standard gears. Helical gears for parallel and crossed shafts; worm gear layout. Straight bevel gears, spiral and hypoid bevel gears. Gear trains; planetary gear trains. Differentials and differential screws. Force analysis of gears. Gyroscopic effect in machines. Static and dynamic balancing of rotating masses reciprocating machinery with single and multiple cylinders. Lectures: two hours per week. Tutorial: two hours per week, alternate weeks. Laboratory: two hours per week, alternate weeks.

## MECH 343 Theory of Machines I (3.5 credits)

Prerequisite: EMAT 213, 233; ENGR 243. Introduction to mechanisms; position and displacement; velocity; acceleration; synthesis of linkage; robotics; static force analysis; dynamic force analysis; forward kinematics and inverse kinematics; introduction to gear analysis and gear box design; kinematic analysis of spatial mechanisms. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.
NOTE: Students who have received credit for MECH 341 may not take this course for credit.

MECH 351 Thermodynamics II ( 3.5 credits) Prerequisite: ENGR 251. Brief review of ideal gas processes. Semi-perfect gases and the gas tables. Mixtures of gases, gases and vapours, air conditioning processes. Combustion and combustion equilibrium. Applications of thermodynamics to power production and utilization systems: study of basic and advanced cycles for gas compression, internal combustion engines, power from steam, gas turbine cycles, and refrigeration. Real gases. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

## MECH 352 Heat Transfer I ( 3.5 credits)

Prerequisite: ENGR 311. Analytical and numerical methods for steady-state and transient heat conduction. Empirical and practical relations for forced- and free-convection heat transfer. Radiation heat exchange between black bodies, and between non-black bodies. Gas radiation. Solar radiation. Effect of radiation on temperature measurement. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 361 Fluid Mechanics II ( 3.5 credits) Prerequisite: ENGR 361. Selected solutions of the Navier-Stokes equations. Introduction to turbulent flow. Fully developed pipe and duct flows, major and minor losses, flow measurement. Euler equations, potential flows, superposition of elementary plane flows. Boundary layers, flow about immersed bodies. Propagation of sound waves, isentropic flow of ideal gases in one dimension, stagnation properties, normal shocks. Introduction to open channel flows. Laboratory experiments: flow visualization, laminar and turbulent pipe flows, lift and drag of airfoils, Stokes' flow, numerical solution of potential flows. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 370 Modelling, Simulation and Analysis of Physical Systems ( 3.75 credits)

Prerequisite: ENGR 311 previously or concurrently; ENGR 243, 275. Definition and classification of dynamic systems and components. State-variable and input-output models. Modelling of system components: electrical, mechanical, fluid, and thermal. Modelling of multi-domain systems. Nonlinear systems and linear representations of nonlinear components. Simulation techniques. Analysis and solution techniques for linear systems. Transfer functions and block diagrams. Frequency response. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.
NOTE: Students who have received credit for ENGR 370 or ELEC 370 may not take this course for credit.

## MECH 371 Fundamentals of Control Systems (3.75 credits

Prerequisite: MECH 370 or ENGR 370. Mathematical models of control systems. Characteristics, performance, and stability of linear feedback control systems. Root-locus methods. Frequency response methods. Stability in the frequency domain. Design and compensation of feedback control systems. PID controller design. Introduction to time-domain methods. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.
NOTE: Students who have received credit for ENGR 372 or ELEC 372 may not take this course for credit.

## MECH 372 Industrial Electronics

(3.5 credits)

Prerequisite: ENGR 370 or MECH 370. A survey of electronic components and systems used in industry. Analog devices; the transistor, the operational amplifier and their models.
Amplifiers. Digital devices: gates, logic devices. Large scale integrated circuits, microcomputers. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.
NOTE: Students who have received credit for

ELEC 318 may not take this course for credit. NOTE: Electrical Engineering and Computer Engineering students may not take this course for credit.

## MECH 373 Instrumentation and Measurements ( 3.5 credits)

Prerequisite: ENGR 370 or MECH 370 . Unified treatment of measurement of physical quantities; static and dynamic characteristics of instruments - calibration, linearity, precision, accuracy, and bias and sensitivity drift; sources of errors; error analysis; experiment planning; data analysis techniques; principles of transducers; signal generation, acquisition and processing; principles and designs of systems for measurement of position, velocity, acceleration, pressure, force, stress, temperature, flow rate, proximity detection, etc. The course includes demonstration of various instruments. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 411 Design and Analysis of Mechanical Components (2.5 credits)

Prerequisite: MECH 311. Analytical review of current design practices and specification of standard components encountered in mechanical engineering. Introduction to overall system reliability estimates, safety considerations, interchangeability of mechanical devices and influence of stress-strength in determining the actual configuration of mechanical elements. Standard components covered include various types of mechanical drives, cams, clutches, couplings, brakes, seals, fasteners, springs, and bearings. Lectures: two hours per week. Tutorial: two hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 412 Computer-Aided Mechanical Design (3.5 credits)

Prerequisite: MECH 313. Introduction to computational tools in the design process. Introduction to the fundamental approaches to computer-aided geometric modelling, physical modelling and engineering simulations. Establishing functions and functional specifications with emphasis on geometric tolerancing and dimensioning, manufacturing and assembly evaluation. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 413 Theory of Machines II ( 3.5 credits)

Prerequisite: MECH 343. Spur gears; helical, worm and bevel gears; gear trains, design and analysis; cam design; balancing of machinery; theory of flywheel; theory of universal joints; theory of friction. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks. NOTE: Students who have received credit for MECH 342 may not take this course for credit

## MECH 421 Mechanical Shaping of Metals

 and Plastics ( 3.5 credits) Prerequisite:MECH 221. Metal forming: extrusion, forging, rolling, drawing, pressing, compacting; shear line theory, sheet forming limits. Metal cutting, machinability, tooling. Plastics shaping: extrusion, moulding, vacuum forming. Consideration of the mechanical parameters critical for process control and computer applications. Interaction of materials characteristics with processing to define product properties: cold working, annealing, hot working, super plasticity, thermomechanical treatment. Energy conservation, safety, product quality, and liability. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.
## MECH 422 Mechanical Behaviour of Polymer Composite Materials (3 credits)

Prerequisite: ENGR 244; MECH 221. General applications of polymer composite materials in aircraft, aerospace, automobile, marine, recreational, and chemical processing industries. Mechanics of a unidirectional lamina. Transformation of stress, strain, modulus, and compliance. Off-axis engineering constants, shear and normal coupling coefficients. In-plane and flexural stiffness and compliance with different laminates, including cross-ply, angle-ply, quasi-isotropic, and general bidirectional laminates. Hygrothermal effects. Strength of laminates and failure criteria. Micromechanics. Lectures: three hours per week.

MECH 423 Casting, Welding, Heat Treating, and Non-Destructive Testing (3.5 credits)

Prerequisite: MECH 221. Comparative analysis of the various techniques of casting, welding, powder fabrication, finishing, and non-destructive testing. Consideration of the control parameters that are essential to define both automation and robot application. Materials behaviour which determines product micro-structure and properties. Technology and theory of solidification, normalizing, quenching, surface hardening, tempering, aging, and thermomechanical processing for steels, cast irons and A1, Cu, Ni and Ti alloys. Energy conservation, worker safety, quality control, and product liability. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

## MECH 424 Design and Fabrication of Micromachines and Micromechanisms ( 3.5 credits)

Prerequisite: MECH 311, 343. Introduction to micromachining processes; mechanical properties of materials used in micromechanical systems; design and fabrication of free standing structures; sacrificial and structural layers; finite element modelling; micromechanical components; solid lubrication of microbearings; special techniques: double-side lithography, anodic bonding, electrochemical drilling, deep etching, LIGA process, laser microfabrication; influence of IC fabrication processes on the mechanical properties; applications in microdevices; simulation and packaging.

Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 425 Manufacturing of Composites

 ( 3.5 credits)Prerequisite: MECH 311. Fibres and resins. Hand lay up. Autoclave curing. Compression molding. Filament winding. Resin transfer molding. Braiding. Injection molding. Cutting. Joining. Thermoset and thermoplastic composites. Process modelling and computer simulation. Non-destructive evaluation techniques. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 426 Stress and Failure Analysis of

 Machinery (3 credits)Prerequisite: ENGR 244. Analysis of stresses, strains and deformations in machine elements; non-symmetric bending of beams; shear centre for thin-walled beams; curved beams; torsion of non-circular shafts and tubes; thick wall cylinders; plates and shells; contact elements; stress concentrations; energy methods; failure modes, analysis and prevention; buckling, fracture, fatigue and creep. Lectures: three hours per week.

## MECH 431 Principles of Aeroelasticity (3 credits)

Prerequisite: ENGR 243, 311. Aerodynamic loading of elastic airfoils. Phenomenon of divergence. Effect of flexible control surface on divergence of main structure. Divergence of one- and twodimensional wing models. Phenomenon of flutter. Flutter of two- and three-dimensional wings. Flutter prevention and control. Panel flutter in high speed vehicles, flutter of turbomachine bladings, galloping vortex-induced oscillations, bridge buffeting. Lectures: three hours per week.

## MECH 441 Mechanical Engineering Design (3 credits)

Prerequisite: ENGR 244; MECH 313, 343. Introduction to overall reliability estimates and influence of stress-strength in determining the actual configuration of mechanical elements. Probabilistic design theory. Concepts in design; probabilistic approach; fatigue and failure of mechanical elements under dynamic loading; shafting; bolted and welded joints; anti-friction and journal bearings; design of gears. Lectures: three hours per week. Tutorial: two hours per week.

## MECH 443 Mechanical Vibrations ( 3.5 credits)

Prerequisite: ENGR 311; ENGR 370 or ELEC 370 or MECH 370; MECH 343. Transient vibrations under impulsive shock and arbitrary excitation: normal modes, free and forced vibration. Multi-degree of freedom systems, influence coefficients, orthogonality principle, numerical methods. Continuous systems; longitudinal torsional and flexural free and forced vibrations of prismatic bars. Lagrange's equations. Vibration measurements. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

## MECH 444 Guided Vehicle Systems

 (3 credits)Prerequisite: MECH 443. Definition and classification of guided transportation systems. Track characterization: alignment, gage, profile, and cross-level irregularities. Wheel-rail interactions: rolling contact theories, creep forces. Modelling of guided vehicle components: wheel set, suspension, truck and car body configurations, suspension characteristics. Performance evaluation: stability hunting, ride quality. Introduction to advanced vehicles. Lectures: three hours per week.

MECH 445 Machine Design (4 credits) Prerequisite: MECH 441. Design of springs; design of gear and hydraulic drives, design for hydrodynamics and hydrostatic lubrication; optimum design of mechanical systems, design strategy, value and merit function, maximizing and minimizing procedures. Laboratory work includes an advanced design project representative of those encountered in industry. Equivalent laboratory time: four hours per week, two terms. NOTE: Not available for credit for students taking ENGR 481.

## MECH 446 Process Equipment Design (3 credits)

Prerequisite: MECH 321. Design of pressure vessels, towers, reactors, tanks, heat exchangers, piping systems, etc. as used in the petro-chemical, power generation, pulp and paper, and related industries. Compliance with pertinent codes and regulations; detailed analysis of shells, formed heads, flat closures; expansion stresses; wind and earthquake effects. Application to actual problems from industry. Lectures: three hours per week.

## MECH $447 \quad$ Fundamentals of Vehicle System Design ( 3.5 credits)

Prerequisite: MECH 343. Mechanics and construction of wheels and tires: rolling resistance, tractive and braking forces, brake system design: components of mechanical, hydraulic and pneumatic brake systems, braking efficiency, antilock braking devices, performance characteristics of road vehicles: transmission design, driving condition diagrams, acceleration, speed and stopping distance, gradability, steering mechanisms: design and kinematics, suspension spring and shock absorbers: anti-roll and anti-pitch devices, chassis and body design considerations. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 448 Vehicle Dynamics (3 credits) Prerequisite: MECH 447 previously or concurrently. Tire-terrain interactions; side-slip, cornering and aligning properties of tires; camber angle and camber torque; estimation of braking/tractive and cornering forces of tires; steady-state handling of road vehicles; steering response and directional stability; handling and directional response of vehicles with multiple steerable axles; handling of articulated vehicles; handling and directional response of tracked
and wheeled off-road vehicles; directional response to simultaneous braking and steering. Lectures: three hours per week.

MECH 452 Heat Transfer II ( 3.5 credits) Prerequisite: MECH 351, 352, 361. Heat exchangers. Condensation and boiling heat transfer. Principles of forced convection. Analysis of free convection from a vertical wall. Correlations for free convection in enclosed spaces. Mass transfer. Special topics of heat transfer. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 453 Heating, Ventilation and Air Conditioning Systems (3 credits)

Prerequisite: MECH 352. Heating and cooling load calculation. Overview of heating and air conditioning systems. Review: Vapour compression refrigeration cycles, refrigerant properties, psychometrics. Performance characteristic of components: evaporators, condensers, compressors, throttling devices (expansion valves, capillary tubes). System performance characteristics: calculation of system operating conditions based on the capacities of its components and outdoor and indoor conditions. Controls: operational, capacity. Computer-aided design methods. Defrosting. Estimation of energy consumption for heating with heat pumps. Fundamentals of refrigerant piping, water piping, and air distribution systems. Experimental methods for system development. Lectures: three hours per week.

## MECH 454 Vehicular Internal Combustion Engines (3 credits)

Prerequisites: MECH 351, 361. Mechanical design of vehicular engines for different applications. Gas exchange and combustion engine processes. Combustion chambers design. Fuels for vehicular engines. Fuel supply, ignition and control systems. Cooling and lubrication of engines. Emissions formation and control. Engines' operational characteristics - matching with vehicles. Enhancement of engine performance. Engine testing. Environmental impact of vehicular engines on global pollution. Recent developments in energy efficient and "clean" engines. Design or calculation project of vehicular engine.

MECH 461 Gas Dynamics ( 3.5 credits) Prerequisite: MECH 361. Review of one-dimensional compressible flow. Normal and oblique shock waves; Prandtl-Meyer flow; combined effects in one-dimensional flow; non-ideal gas effects; multi-dimensional flow; linearized flow; method of characteristics. Selected experiments in supersonic flow, convergent-divergent nozzles, hydraulic analogue and Fanno tube. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 462 Turbomachinery and Propulsion (3 credits)

Prerequisite: MECH 351, 361. Aircraft design process, preliminary sizing and thrust require-
ments. Rotary and fixed wing aerodynamics and stability. Helicopter configurations. Structure and fatigue design considerations. Review of the gas turbine cycle and components arrangement. Turbo-propulsion: turboprop, turbofan, turbojet and turboshafts. Energy transfer in turbomachines: Euler equation, velocity triangles. Dimensional analysis of turbomachines. Flow in turbomachines. Three-dimensional flow in turbomachines. Mechanisms of losses in turbomachines. Axial-flow turbines and compressors. Centrifugal compressors. Compressor and turbine performance maps; surge and stall. Lectures: three hours per week. Tutorial: one hour per week.

MECH 463 Fluid Power Control ( 3.5 credits)
Prerequisite: ENGR 361; ENGR 372 or ELEC 372 or MECH 371. Introduction to fluid power; pneumatic devices; fluidic devices; hydraulic system components; hydraulic and electro-hydraulic systems; dynamic performance of fluid power systems; fluid logic. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 464 Aerodynamics (3 credits)

Prerequisite: MECH 461. Flow conservation equations, incompressible Navier-Stokes equations, inviscid irrotational and rotational flows: the Euler equations, the potential and stream function equations. Dynamics of an incompressible inviscid flow field: the Kelvin, Stokes, and Helmholtz theorems. Elementary flows and their superposition, panel method for non-lifting bodies. Airfoil and wing characteristics, aerodynamic forces and moments coefficients. Incompressible flows around thin airfoils, Biot-Savart law, vortex sheets. Incompressible flow around thick airfoils, the panel method for lifting bodies. Incompressible flow around wings, Prandt's lifting line theory, induced angle and down-wash, unswept wings, swept wings. Compressible subsonic flow: linearized theory, Prandlt-Glauert equation and other compressibility correction rules, the area rule. Transonic flow: Von Karman's ransonic small disturbance equation, transonic full potential equation, supercritical airfoils. Lectures: three hours per week.

## MECH 465 Gas Turbine Design (3.5 credits)

Prerequisite: MECH 462. Review of turbopropulsion types and energy transfer in turbomachines. Two- and three-dimensional flow. Lift and drag for airfoils. Cascade tests and correlations. Aerodynamic losses: physics, mechanisms, control of viscous effects. Preliminary and detailed design of turbines and compressors. Structural and thermal design requirements. Failure considerations: creep, fatigue and corrosion. Performance matching. Combustion and gearbox design. Air and oil systems design requirements. Installations and
acoustics. Evolution of design. Recent trends in technologies. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 471 Microprocessors and Applications ( 3.5 credits)

Prerequisite: ELEC 318 or MECH 372. Introduction to the concepts and practices of using microprocessors and microcomputers in such applications as instrumentation, manufacturing, control, and automation; architecture and programming techniques; interface logic circuits: I/O systems; case studies of engineering applications. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 480 Flight Control Systems

(3.5 credits)

Prerequisite: ENGR 372 or ELEC 372 or MECH 371. Basic flight control and flight dynamics principles. Aircraft dynamic equations and performance data. Implementation of aircraft control: control surfaces and their operations, development of thrust and its control; autopilot systems, their algorithms, dynamics and interaction problems. Flight instruments, principles of operation and dynamics. Cockpit layouts basic configuration, ergonomic design, control field forces; advanced concepts in instruments, avionics and displays; HUD; flight management systems, and communication equipment. Introduction to flight simulation: overview of visual, audio and motion simulator systems; advanced concepts in flight simulators. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

## MECH 481 Materials Engineering for Aerospace (3 credits)

Prerequisite: MECH 321. Different types of materials used in aerospace. Metals, composites, ceramics. High temperature materials. Failure prediction and prevention. Modes of material failure, fracture, fatigue, creep, corrosion, impact. Effect of high temperature and multiaxial loadings. Cumulative damage in fatigue and creep. Materials selection. Lectures: three hours per week.

## MECH 482 Avionic Navigation Systems

 (3 credits)Prerequisite: ENGR 372 or ELEC 372 or MECH 371. Basics of modern electronic navigation systems, history of air navigation, earth coordinate and mapping systems; basic theory and analysis of modern electronic navigation instrumentation, communication and radar systems, approach aids, airborne systems, transmitters and antenna coverage; noise and losses, target detection, digital processing, display systems and technology; demonstration of avionic systems using flight simulator. Lectures: three hours per week.

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MECH 490 Capstone Mechanical
        Engineering Design Project
        (4 credits)
Prerequisite: 75 credits in the program. A
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supervised design, simulation or experimental capstone design project including a preliminary project proposal with complete project plan and a technical report by each student at the end of the Fall Term, a final report by the group and individual oral presentation at the end of the Winter Term. Lectures: one hour per week, one term. Equivalent laboratory time: three hours per week, two terms.
NOTE: Students will work in groups under direct supervision of a faculty member.

## MECH 498 Topics in Mechanical

 Engineering (3 credits)Prerequisite: Permission of the Department chair. This course may be offered in a given year upon the authorization of the Mechanical and Industrial Engineering Department. The course content may vary from offering to offering and will be chosen to complement the elective courses available in a given option or options. Lectures: three hours per week.

## 747 department of COMPUTER SCIENCE



Assistant Professors<br>AMNON H. EDEN<br>THOMAS FEVENS<br>DHRUBAJYOTI GOSWAMI<br>LEILA KOSSEIM<br>OLGA ORMANDJIEVA<br>JOEY PAQUET<br>JUERGEN RILLING<br>AHMED SEFFAH<br>NEMATOLLAAH SHIRI-VARNAAMKHAASTI<br>Extended Term Appointment (ETA)<br>NANCY ACEMIAN<br>Adjunct Professors<br>T. KASVAND<br>HANG T. LAU<br>K. LIU

Adjunct Associate Professors
P. DINI

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Adjunct Assistant Professors
C. GROSSNER
G.C. PRABHAKAR

Distinguished Professors Emeriti
V.S. ALAGAR
G. MARTIN
R. SHINGHAL

| Location | Sir George Williams Campus |
| :--- | :--- |
| J.W. McConnell Building, Room: LB 901-4 |  |
| (514) $848-3000$ |  |

Computer Science is the study and design of computer systems: hardware and software. Computer scientists are primarily concerned with the design of algorithms, languages, hardware architecture, systems software, applications software and tools. Applications range from simple game playing to the control of space vehicles, power plants and factories, from banking machines to intelligent fault and medical diagnosis. Computer professionals, in short, are concerned with the creation of computer and information systems for the benefit of society.
Software Engineering applies the principles and practices of engineering to the creation of reliable, efficient, and economical software. Software Engineering has its roots in the theory and mathematics of computer science, but carries this knowledge further towards creative applications such as software control systems for vehicles, aircraft, industrial processes; animation, interactive video, virtual reality, commercial systems for banking and financial analysis; health systems for the analysis of biological systems and the control of therapeutic systems.
It shares with engineering the rigorous methodology of analysis and design in the search for economical, reliable, and efficient solutions. Software engineers are trained in all aspects of the software life cycle, from specification through analysis and design, to testing maintenance and evaluation of the product. They are concerned with safety and reliability of the product as well as cost and schedule of the development process. The discipline is particularly applicable to very large software projects, as well as the re-engineering of existing products.

Curriculum for the Degree of Bachelor of/Baccalaureate in Computer Science

The Computer Science program emphasizes fundamentals and techniques that remain relevant and useful for many years after graduation. It consists of a combination of core courses in computer science, program courses attached to its options, and technical electives. The Computer Science Core provides a basic and broad study of theory, programming methodology, computer architecture, systems architecture, data structures, operating systems, files, databases, and software engineering. The option courses are designed to provide an integrated yet specialized training in particular application areas of the discipline. Each option involves the study of selected advanced elective courses in computer science, as well as courses in other disciplines, to provide further depth in computer science and the particular application area.
The Department offers the following five options: Information Systems, Software Systems, Computer Systems, Computer Applications, and Digital Image/Sound. There is an Honours program corresponding to each option. All options are offered in the co-operative format, with alternating Study and Work terms, for a limited number of students with suitable qualifications.
The Information Systems option focuses on business applications of computer systems, with special emphasis on databases, software engineering, and management of information systems.
The Software Systems option is concerned with the design and analysis of large-scale software systems.
The Computer Systems option focuses on the design of systems with both hardware and software components.
The Computer Applications option balances 45 credits of Computer Science courses and 45 credits of courses in another discipline of the student's choice.
The Digital Image/Sound option combines Computer Science with a Major in Fine Arts for the design of interactive multi-media.

To be recommended for the degree of BCompSc , students must satisfactorily complete an approved program of at least 90 credits comprising the courses of the Computer Science Core and those courses specified for their particular option in accordance with the graduation requirements of $\$ 71.10 .5$.
The Faculty of Engineering and Computer Science is committed to ensuring that its students possess good writing skills. Hence, every student in an undergraduate degree program is required to demonstrate competence in writing English or French prior to graduation.
All students admitted to the Faculty of Engineering and Computer Science as of September 2001 must meet the writing skills requirement by satisfying the requirements outlined in $\S 16.2 .4$ (University Writing Test).
If a student has satisfied the writing skills requirement prior to September 2001, or prior to transferring to the Faculty of Engineering and Computer Science, that student is deemed to have satisfied the writing skills requirement.
Newly admitted students are strongly encouraged to meet the requirement very early in their program (Fall Term of first year for students starting in September or Winter Term of first year for students starting in January) to avoid the risk of delayed graduation should remedial work prove necessary. Students who are required to take ESL courses should meet the writing skills requirements in the semester following completion of their ESL courses.

## Computer Science Core (36 credits)

| The Computer | Science Core consists of: | Credits |
| :--- | :--- | :---: |
| COMP 228 | System Hardware | 3.00 |
| COMP 229 | System Software | 3.00 |
| COMP 238 | Mathematics for Computer Science I | 3.00 |
| COMP 239 | Mathematics for Computer Science II | 3.00 |
| COMP 248 | Introduction to Programming | 3.00 |
| COMP 249 | Programming Methodology | 3.00 |
| COMP 335 | Introduction to Theoretical Computer Science | 3.00 |
| COMP 346 | Operating Systems | 4.00 |
| COMP 352 | Data Structures and Algorithms | 3.00 |
| COMP 353 | Databases | 4.00 |
| COMP 354 | Software Engineering I | 4.00 |
|  |  | $\underline{36.00}$ |


| 1. Information | Systems Option | Credits |
| :--- | :--- | ---: |
|  | Computer Science Core | 36.00 |
| ENCS 282 | Technical Writing and Communication | 3.00 |
|  | 12 elective Computer Science credits chosen from |  |
|  | COMP courses numbered above 300 (see Note 1) | 12.00 |
| ECON 201 | Introduction to Microeconomics | 3.00 |
| ECON 203 | Introduction to Macroeconomics | 3.00 |



## 5. Digital Image/Sound Option

See $\S 71.80$ for details
NOTES:

1. Students may obtain permission from the Department to take no more than two COMP courses numbered between 600 and 699 in this category. Credits obtained from these courses count towards the BCompSc degree and are not creditable towards a higher degree.
2. Certain courses are not acceptable as electives. In general, all computer-related courses offered outside of Computer Science may not be taken without written permission from the Undergraduate Program Director. Lists of excluded courses and additional information about the choice of electives are available from the Undergraduate Program Office. In exceptional cases, students may request permission to take an excluded course from Student Affairs, Office of the Dean.
71.70 .3

Extended Credit
Program

Students admitted to an Extended Credit Program under the provisions of Sections 13.3.2 or 13.8.1 must successfully complete a minimum of 120 credits including:

90 Program requirements as set out in Section 71.70.2
12 MATH 202 ${ }^{3}, 203^{3}, 204^{3}, 205^{3}$
3 COMP $201^{3}$
15 Additional credits, as indicated below:
a) Information Systems Option: 15 elective credits chosen from outside the John Molson School of Business and the Department of Computer Science.
b) Computer Applications Option: 15 elective credits chosen from outside the Faculty of Engineering and Computer Science.
c) Other Options: CHEM $205^{3}$ PHYS 204 ${ }^{3}$, 205 ${ }^{3}$, 224 ${ }^{1}, 225^{1}$
and at least four credits chosen from:


Students should refer to $\$ 16.2 .3$ of the Calendar for academic regulations for the Honours program.
The following regulations are additional requirements for the Honours BCompSc Program.

1. Applications to enter an Honours program must be submitted to the Office of the Associate Dean (Student Affairs) at least three months before the start of the term in which the student wishes to enter an Honours program.
2. Students must complete at least 30 credits towards their degree before entering an Honours program.
3. Each student in an Honours program must have an Honours adviser who approves the student's choice of courses prior to each registration.
4. Students must maintain an Annual Weighted Grade Point Average (GPA) of 3.20 or higher to remain in an Honours program.
5. Students who are required to withdraw from an Honours program may continue in the regular program of their option provided they are in acceptable or conditional standing according to the academic regulations in §71.10.3.

## Course Requirements for Honours Programs

Honours students must fulfil the requirements of their option. In addition to these requirements, they must include COMP 490 and COMP 495 in their Computer Science electives.

NOTE: Admission profile is 10.12 .
Minor in Computer Science
21 COMP $228^{3}, 229^{3}, 238^{3}, 239^{3}, 248^{3}, 249^{3}, 352^{3}$
3 300-400 level Computer Science elective credits.
Students who require any of the above courses as part of their Major should replace these courses with 300- or 400-level Computer Science electives or consult their departmental adviser to make an appropriate substitution in their principal program.

Both Major and Minor programs in Management Information Systems can be found in the John Molson School of Business Section of the Undergraduate Calendar, §61.
The Faculty of Fine Arts and the Department of Computer Science offer complementary Major programs. Students who take the Computer Applications Option (see §71.70.2 above) can also take the Major in Digital Image/Sound and Computer Science (see §71.80, and the Fine Arts Section, §81).

Director
R. JAYAKUMAR, Associate Professor

Students entering any option of the program leading to the BCompSc degree may request permission to undertake their studies in the co-op format by following the application procedure specified in §24.
71.70 .8

Curriculum for the Degree of BEng in Software Engineering

Academic content is identical to that of the regular program, but six Study terms are interspersed with four Work terms.
Students are supervised personally and must meet the requirements specified in $\S 71.10 .8$ in order to continue their studies in the co-op format.
Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Computer Science co-op committee, which includes the student's advisers.
Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

The Software Engineering program is built on the fundamentals of computer science, an engineering core, and a discipline core in Software Engineering to cover the engineering approach to all phases of the software process and related topics.
The curriculum builds on the traditional computer science core topics of computer mathematics, theory, programming methodology, and mainstream applications to provide the computing theory and practice which underlie the discipline. The engineering core covers basic science, professional topics, and introduces the engineering approach to problem solving. The program core in Software Engineering includes advanced programming techniques, software specification, design, architecture, as well as metrics, security, project management, and quality control. The elective groups cover a broad range of advanced topics, from formal methods to distributed systems.

Students registered in the Software Engineering program must complete a minimum of 119.75 credits during four years of full-time study. The program consists of the Engineering Core, the Software Engineering Core, and an Elective Group.

| Engineering | Core (See §71.20.3) | Credits |
| :--- | :--- | :---: |
| EMAT 213 | Ordinary Differential Equations | 3.00 |
| EMAT 233 | Advanced Calculus | 3.00 |
| ENCS 282 | Technical Writing and Communication | 3.00 |
| ENGR 201 | Professional Practice and Responsibility | 1.50 |
| ENGR 202 | Sustainable Development and Environmental Stewardship | 1.50 |
| ENGR 275 | Principles of Electrical Engineering | 3.75 |
| ENGR 301 | Engineering Management Principles and Economics | 3.00 |
| ENGR 371 | Probability and Statistics in Engineering | 3.00 |
| ENGR 391 | Numerical Methods in Engineering | 3.00 (1) |
| ENGR 492 | Impact of Technology on Society | 3.00 |
|  | General Education elective (see §71.20.6) | 3.00 |
|  | Two Basic Science courses | 6.00 (2) |
|  |  | $\mathbf{3 6 . 7 5}$ |

## NOTES

(1) Software Engineering students may replace ENGR 391 with COMP 361.
(2) In addition to the courses in the Engineering Core required for all Engineering students, Software Engineering students are required to take two Basic Science courses ( 6 credits) selected from the list below.

## Basic Science Courses Credits

BIOL 206 Elementary Genetics 3.00
BIOL 208 Environmental Biology 3.00
BIOL 226 Biodiversity and Ecology 3.00
BIOL 261 Molecular and General Genetics 3.00
CHEM 209 Discovering Biotechnology 3.00
CHEM 217 Introductory Analytical Chemistry I 3.00
CHEM 221 Introductory Organic Chemistry I 3.00
CHEM 234 Physical Chemistry I: Thermodynamics 3.00
ENCS 245 Mechanical Analysis 3.00
GEOL 206 Earthquakes, Drifting Continents and Volcanoes 3.00
GEOL 208 The Earth, Moon and the Planets 3.00
PHYS 253 Electricity and Magnetism I 3.00
PHYS $254 \quad$ Electricity and Magnetism II 3.00
PHYS 273 Energy and Environment 3.00
PHYS 334 Thermodynamics 3.00
PHYS 352 Optics 3.00
PHYS 364 Atomic Physics 3.00
PHYS 384 Introduction to Astronomy 3.00
PHYS 385 Astrophysics 3.00

| Software Engineering Core (71 credits) | Credits |  |
| :--- | :--- | :---: |
| COMP 238 | Mathematics for Computer Science I | 3.00 |
| COMP 239 | Mathematics for Computer Science II | 3.00 |
| COMP 248 | Introduction to Programming | 3.00 |
| COMP 249 | Programming Methodology | 3.00 |
| COMP 335 | Introduction to Theoretical Computer Science | 3.00 |
| COMP 346 | Operating Systems | 4.00 |
| COMP 352 | Data Structures and Algorithms | 3.00 |
| COMP 353 | Databases | 4.00 |
| COMP 445 | Data Communication and Computer Networks | 4.00 |
| SOEN 228 | System Hardware | 4.00 |
| SOEN 229 | System Software | 3.00 |
| SOEN 321 | Information Systems Security | 3.00 |
| SOEN 337 | Software Metrics, Measurements and Testing | 3.00 |
| SOEN 341 | Software Process | 3.00 |
| SOEN 342 | Software Requirements and Specifications | 3.00 |
| SOEN 343 | Software Design | 3.00 |
| SOEN 344 | Software Architecture | 3.00 |
| SOEN 357 | User Interface Design | 3.00 |
| SOEN 384 | Management and Quality Control in Software Development | 3.00 |
| SOEN 385 | Control Systems and Applications | 3.00 |
| SOEN 390 | Software Development Project | 3.00 |
| SOEN 490 | Software Engineering Design Project | 4.00 |
|  |  | 71.00 |

71.70.10 The Co-operative Format

Director
R. JAYAKUMAR, Associate Professor

Students entering any option of the program leading to the BEng in Software Engineering degree may request permission to undertake their studies in the co-op format by following the application procedure specified in §24.
Academic content is identical to that of the regular program, but six Study terms are interspersed with four Work terms.
Students are supervised personally and must meet the requirements specified in $\$ 71.10 .8$ in order to continue their studies in the co-op format.
Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Computer Science co-op committee, which includes the student's advisers.
Please refer to $\$ 24$ for the schedule of Study and Work terms and the full description of admission requirements.

Please note that new course numbers have been implemented. For equivalent course numbers under the old system, please consult \$200.6
Students from outside the Faculty of Engineering and Computer Science who are not registered in a Computer Science program may not take more than five COMP courses numbered higher than 212. Students from outside the Faculty of Engineering and Computer Science who are registered for the Minor in Computer Science may not take more than 30 credits of COMP courses numbered higher than 212.

## COMPUTER SCIENCE

## COMP 201 Introduction to Computers and Computing (3 credits)

Prerequisite: MATH 201 or equivalent. Overview of a computing system and its operation. Introduction to problem solving and algorithms. Introduction to program design and development with emphasis on common problem solution. A programming language will be introduced to develop and convey the above topics. Lectures: three hours per week. Tutorial: one hour per week. NOTES: 1. Students who have received credit for COMP C211 or COMP 212 or COMP 215 or COMP 248 may not take this course for credit. 2. This course may not be taken for credit in the regular undergraduate programs in Engineering and Computer Science.

## COMP 212 FORTRAN for Engineers and Scientists (3 credits)

Prerequisite: MATH 204 or cégep Mathematics 105; MATH 205 or cégep Mathematics 203. Note: It is also assumed that students have had some exposure to computers, either through a cégep course or through exposure to personal computers. A brief introduction to computers and computing systems. A thorough grounding in the use of FORTRAN 77 as a tool for the solution of engineering and scientific problems. Introduction to the principles of software engineering: problem specification, requirements analysis, program design with emphasis on structured programming, testing, and validation; program documentation. Lectures: three hours per week. Tutorial: one hour per week.
NOTES: 1. Students having credit for a FORTRAN programming course from cégep with a mark of at least $85 \%$ may, during the first two weeks of the course, apply to the course coordinator to undertake a FORTRAN programming project appropriate to their field of study in lieu of the normal requirements of the course. 2. Students in the BCompSc program may not take this course for credit.

## COMP 218 Fundamentals of ObjectOriented Programming (3 credits)

Prerequisite: MATH 201 or equivalent (no prior experience with computers is assumed). Computers and computing: problem solving with computers; programming; basic elements of an Object-Oriented language: basic data types, objects, expressions, predefined functions for I/O; simple programs; program documentation; control structures; functions: simple library functions; arrays: one- and two-dimensional arrays of basic types; classes of objects: analysis and design of classes, implementation of classes. NOTE: Students who have received credit for COMP 248 may not take this course for credit.

COMP 228 System Hardware (3 credits)
Prerequisite: MATH 203 or 209 or cégep Mathematics 103, MATH 204 or 208 or cégep Mathematics 105. Processor structure, Data and

Instructions, Instruction Set Processor (ISP) level view of computer hardware, assembly language level use. Memory systems - RAM and disks, hierarchy of memories. I/O organization, I/O devices and their diversity, their interconnection to CPU and Memory. Communication between computers at the physical level Networks and computers. Lectures: three hours per week. Tutorial: one hour per week. NOTE: Students who have received credit for COMP 220 or SOEN 228 may not take this course for credit.

COMP 229 System Software (3 credits) Prerequisite: COMP 228; COMP 248. Hardware-software interface, system kernel, system services, system evolution. Assemblers, compilers, linkers, and loaders. System component interfaces. User-level view of operating systems. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for SOEN 229 may not take this course for credit.

COMP 238 Mathematics for Computer Science I (3 credits)
Prerequisite: MATH 203 or MATH 209 or cégep Mathematics 103, MATH 204 or MATH 208 or cégep Mathematics 105. Sets, Propositional Logic, Predicate Calculus, Boolean Algebra. Functions and Relations. Functions. Proof Techniques, including proof by induction. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 231 may not take this course for credit.

## COMP 239 Mathematics for Computer Science II (3 credits)

Prerequisite: COMP 238; MATH 205 or cégep Mathematics 203 previously or concurrently. Counting and Number theory. Permutations and combinations. Graph theory and finite state machines. Program correctness and analysis. Lectures: three hours per week. Tutorial: one hour per week.

## COMP 248 Introduction to Programming

 (3 credits)Prerequisite: MATH 204 or MATH 208 or cégep Mathematics 105 . Writing simple programs using assignment and sequence. Variables. Simple types. Operators and expressions. Conditional and repetitive statements. Input and output. Simple functions. Program structure and organization. Definition and scope. Data abstraction and encapsulation. Introduction to classes and objects. Constructors. Lectures: three hours per week. Tutorial: one hour per week. NOTE: Students who have received credit for COMP 215 or COMP 218 may not take this course for credit.

## COMP 249 Programming Methodology

(3 credits)
Prerequisite: COMP 238; COMP 248; MATH 205
or cégep Mathematics 203. Class definitions. Designing classes and member functions. Class libraries and their uses. Input and output. Program development. Introduction to software engineering. Specification and implementation. Inheritance. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 245 may not take this course for credit.

## COMP 251 Introduction to Business

## Programming ( 3 credits)

Prerequisite: Cégep 420-911 or equivalent. Introduction to business data processing. Basic file organization and handling, record layouts, elementary information storage and retrieval. Detailed specifications of the Common Business Oriented Language (COBOL). Structured programming concepts will be emphasized. This course will include programming assignments involving basic business applications, to be prepared, tested, and documented individually. Lectures: three hours per week. Tutorial: one and a half hours per week.
NOTE: Restricted to students registered in a Commerce and Administration program.

## COMP 326 Computer Architecture

 (3 credits)Prerequisite: COMP 346. Classification schemes. Functional units, bussing systems and input/output structures, storage systems, instruction sets. Microprogramming. Survey of different kinds of computer architectures. Software influences on architecture. Advanced topics in computer architecture. Lectures: three hours per week. Tutorial: one hour per week.

## COMP 327 Digital System Design (4 credits)

Prerequisite: COMP 228 or COEN 311. Reduction of Boolean expressions. Digital integrated circuits. Combinatorial circuits. Sequential logic, counters, shift registers. Microprocessors. Interfacing with external devices. Lectures: three hours per week. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 325 or COEN 312 may not take this course for credit.

## COMP 335 Introduction to Theoretical Computer Science (3 credits)

Prerequisite: COMP 239 or COEN 231; COMP 249 or COEN 244. Finite state automata and regular languages. Push-down automata and context-free languages. Pumping lemmas. Applications to parsing. Turing machines. Undecidability and decidability. Lectures: three hours per week. Tutorial: one hour per week.

COMP 346 Operating Systems (4 credits) Prerequisite: COMP 229 or COEN 311; COMP 352. Operating system evolution and services. Process management: concepts of processes, concurrent languages, process
states, process communication, operating system structure, processor scheduling, monitors. System management: virtual memory, resource allocation, queue management, communication with peripherals, exception handling. File systems. Interactive computation. Protection. Distributed systems. Lectures: three hours per week. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 343 or COMP 385 may not take this course for credit.

## COMP 348 Principles of Programming Languages (3 credits)

Prerequisite: COMP 249. Programming paradigms: procedural, object-oriented, functional, and logical. Values and references; function calling and parameter passing mechanisms. Issues in typing: static and dynamic typing; weak and strong typing. Polymorphism and genericity. Exception handling techniques. Stacks, heaps, and memory management. Lectures: three hours per week. Tutorial: one hour per week.

COMP 352 Data Structures and Algorithms (3 credits) Prerequisite: COMP 239 or COEN 231; COMP 249 or COEN 244. This course will emphasize the definition, usage, and manipulation of fundamental data structures and their associated algorithms: stacks and queues, trees, tables, lists, arrays, strings, sets; and will introduce files and access methods. External sorting, B-trees, multi-key organizations. Lectures: three hours per week. Tutorial: one hour per week.

COMP 353 Databases (4 credits)
Prerequisite: COMP 352. Classical database management: modelling, data integrity, data independence and security, ANSI/SPARC architecture, data models (relational, hierarchical, and network), database design, detailed study of the relational model. Lectures: three hours per week. Laboratory: two hours per week. Tutorial: one hour per week.

## COMP 354 Software Engineering I

 (4 credits)Prerequisite: COMP 352. Principles of software development and maintenance. Software lifecycle models and deliverables: requirements analysis and specification, architectural and detailed design, implementation, verification and validation. People, product, and process issues: team dynamics, communication, presentations, reviews. Lectures: three hours per week. Laboratory: two hours per week. Tutorial: one hour per week. NOTE: Students who have received credit for COEN 431 may not take this course for credit.

## COMP 361 Elementary Numerical <br> Methods (3 credits) <br> Prerequisite: COMP 239 or COEN 231;

COMP 249 or COEN 244. Error analysis and computer arithmetic. Numerical methods for solving linear systems, Gaussian elimination, LU decomposition. Numerical solution of non-linear equations, fixed point iterations, rate of convergence. Interpolations and approximations, Lagrange polynomials, divided differences, discrete least-square approximation, Legendre polynomials. Numerical integration, Newton-Cotes formulas, Romberg integration. Emphasis will be on the development of efficient algorithms. Lectures: three hours per week. Tutorial: one hour per week.

## COMP 367 Techniques in Symbolic

 Computation (3 credits)Prerequisite: COMP 238 or MAST 217; COMP 248 or MAST 234. An applicationoriented introduction to symbolic computation as it is used in algebra, number theory and combinatorics: capabilities of symbolic systems (e.g. MAPLE); arithmetic mod $p$ and $\bmod m$; Chinese remainder theorem; finite fields; error-correcting codes; continued fractions; public-key encryption schemes (e.g. RSA); generation of combinatorial objects.
NOTE: Students who have received credit for MAST 332 may not take this course for credit.

## COMP 421 Microprocessor Systems Architecture (4 credits)

Prerequisite: COMP 327 or equivalent. Microcomputer families. Memory interface. I/O systems. Peripheral control. Single-chip microprocessors. Coprocessors. System busses. Board level design. Multicomputer systems. Communication architecture. Lectures: three hours per week. Laboratory: two hours per week. NOTE: Students who have received credit for COMP 427 or COMP 486 may not take this course for credit.

COMP 442 Compiler Design (4 credits)
Prerequisite: COMP 229 or COEN 311; COMP 335; COMP 352. Compiler organization and implementation. Programming language constructs, their syntax and semantics. Syntax directed translation, code optimization. Run-time organization of programming languages. Project. Lectures: three hours per week.

## COMP 444 System Software Design (4 credits)

Prerequisite: COMP 346. Detailed examination of data structures and algorithms of a contemporary operating system: file system, processes, memory management, device management. Comparison of techniques used with those employed in other operating systems. Lectures: three hours per week. Laboratory: two hours per week.

## COMP 445 Data Communication and Computer Networks (4 credits)

 Prerequisite: COMP 346. The study of remote access to and communications between computers. Network architectures and topology; commu-nication protocols and interfaces, functional layers; transmission facilities including communications equipment, line utilization, switching, and error handling; standard protocols; network interfaces including routing and flow control; point-to-point, broadcasting, and local networks theory and current practice; high-level protocols; reliability and security, encryption. Lectures: three hours per week. Laboratory: two hours per week.

COMP 451 Database Design (4 credits) Prerequisite: COMP 353. Review of the relational data model and introduction to distributed databases. DBMS architectures. Data dependencies, decomposition algorithms. Data dictionaries. Concurrency, integrity, security, and reliability issues. Query decomposition, optimization, and evaluation strategies. Physical database design. Project. Lectures: three hours per week.

## COMP 454 Software Engineering II

 (3 credits)Prerequisite: COMP 335; COMP 353; COMP 354. Issues of quality and productivity in software engineering. Software engineering principles for the development of complex systems: cost and schedule estimation, software metrics, software process models, team organization. Formal specification techniques. Quality of process and products: reviews, inspections, testing, statistical reliability estimation, formal methods. Lectures: three hours per week.

COMP 457 Office Automation (3 credits)
Prerequisite: COMP 352. Design of an office automation system. Technical aspects of some office functions. Petri nets. Communication networks. Interface design. Security and cryptography. Future developments. Lectures: three hours per week.

## COMP 458 Structure of Information Systems (3 credits)

Prerequisite: COMP 353. Information systems and organizations. Representation and analysis of system structure. Decision theory. Information system applications. Information centres. System evaluation and selection. Lectures: three hours per week.

## COMP 463 Discrete System Simulation (3 credits)

Prerequisite: COMP 249 or COEN 244; MATH 243 or ENGR 371 or COMM 215. Discrete random variables and their distributions. A comparison of simulation techniques: discrete, continuous, and hybrid. Queueing models, analysis of data. Model building. Review of simulation languages. Application to business problems and operations research. Lectures: three hours per week.

COMP 465 Design and Analysis of Algorithms (3 credits)<br>Prerequisite: COMP 335; COMP 352. Empirical

and theoretical measures of the efficiency of algorithms. Algorithm design techniques. A study of good algorithms related to set operations, sorting, and graph theory. A survey of hard problems, NP-completeness, and intractable problems. Lectures: three hours per week.

COMP 471 Computer Graphics (4 credits) Prerequisite: COMP 352. Display memory; generation of points, vectors, etc. Interactive versus passive graphics; CRT devices and plotters, analog storage of images. Digitizing and digital storage. Pattern recognition. Data structures and graphics software. The mathematics of three-dimensional transformations; projections. Applications in computer-aided design and instruction. Lectures: three hours per week. Laboratory: two hours per week.

COMP 472 Artificial Intelligence (4 credits) Prerequisite: COMP 352. Scope of AI. Heuristics. Problem-solving methodologies. Game-playing. Reasoning by deduction and induction. Natural language processing. Lectures: three hours per week. Laboratory: two hours per week.

COMP 473 Pattern Recognition (3 credits) Prerequisite: COMP 352. Sequential and parallel recognition methodologies. Preprocessing. Feature extraction and selection. Syntactic and statistical approaches. Discriminant functions. Techniques for learning. Bayesian decision procedures. Neural nets. Lectures: three hours per week.

## COMP 474 Introduction to Expert Systems

 (4 credits)Prerequisite: COMP 352. Basic concepts and techniques. Knowledge representation in inferencing. Building a small expert system. Knowledge engineering and large system development. Survey of tools and expert systems. The expert system market. Lectures: three hours per week. Laboratory: two hours per week.

## COMP 490 Computer Science Project I (3 credits)

Prerequisite: Completion of 60 credits. Students will work on a computer science project under the supervision of a faculty member and submit a suitable written report on the work carried out. Students planning to register for this course should consult with the Department prior to registration in the final year of study.

## COMP 492 Computer Science Project II (3 credits)

Prerequisite: COMP 490 previously or concurrently. Students having permission of the Department to carry out a major project will register for both COMP 490 and 492. Alternatively, they may carry out a second smaller project.

COMP 495 Honours Seminar (1 credit) Prerequisite: Registration in final year of the Honours program. Students are required to attend a number of departmental seminars
(initially ten) and submit a written report on one of them. There will be an administrator in charge of this course.

## SOFTWARE ENGINEERING

SOEN 228 System Hardware (4 credits)
Prerequisite: MATH 203 or 209 or cégep Mathematics 103, MATH 204 or 208 or cégep Mathematics 105. Processor structure, Data and Instructions, Instruction Set Processor (ISP) level view of computer hardware, assembly language level use. Memory systems - RAM and disks, hierarchy of memories. I/O organization, I/O devices and their diversity, their interconnection to CPU and Memory. Communication between computers at the physical level. Networks and computers. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.
NOTE: Students who have received credit for COMP 228 may not take this course for credit.

SOEN 229 System Software (3 credits) Prerequisite: SOEN 228; COMP 248. Hardware-software interface, system kernel, system services, system evolution. Assemblers, compilers, linkers, and loaders. System component interfaces. User-level view of operating systems. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 229 may not take this course for credit.

## SOEN 282 Document Processing (2 credits)

Prerequisite: ENCS 281. Document processing software; choice of appropriate tools. Preparing reports with the aid of a spreadsheet. Using Internet facilities for group collaboration, including the construction of shared hypertext. Extraction of documentation from source code. Configuration management. Principles and use of markup languages such as SGML and HTML. Documentation standards such as ISO 9000. Lectures: two hours per week. Tutorial: two hours per week.

## SOEN 321 Information Systems Security (3 credits)

Prerequisite: COMP 346. Protocol layers and security protocols. Intranets and extranets. Mobile computing. Electronic commerce. Security architectures in open-network environments. Cryptographic security protocols. Threats, attacks, and vulnerabilities. Security services: confidentiality; authentication; integrity; access control; non-repudiation; and availability. Security mechanisms: encryption; data-integrity mechanisms; digital signatures; keyed hashes; access-control mechanisms; challenge-response authentication; traffic padding; routing control; and notarization. Key-management principles. Distributed and embedded firewalls. Security zones. Lectures: three hours per week. Tutorial: one hour per week. (3 credits)
Prerequisite: ENGR 371. Quality factors and metrics. Theory of measurement and testing. Empirical tests; data analysis; statistical techniques. Acceptance testing; integration testing; module testing. Testing workbenches and patters. Verification and validation. Fault tolerance. Causality analysis. Review and inspections. Reliability, security and safety assurance. Clean room software development. Software certification. Automated software testing. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 341 Software Process (3 credits) Prerequisite: COMP 229 or COEN 311; COMP 352; SOEN 282 or ENCS 282. Basic principles of software engineering. Introduction to software process models. Activities in each phase, including review activities. Working in teams: organization; stages of formation; roles; conflict resolution. Introduction to notations used in software documentation. How to read, review, revise, and improve software documentation. Lectures: three hours per week. Tutorial: one hour per week.

## SOEN 342 Software Requirements and Specifications (3 credits)

Prerequisite: SOEN 341. Requirements engineering. Functional and non-functional requirements. Traceability. Test generation. Formal and informal specifications. Formal specification languages. Reasoning with specifications. Correctness issues. Verification. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 343 Software Design (3 credits) Prerequisite: SOEN 341. Design notations and methodologies. Design principles: information hiding; coupling and cohesion. Object-oriented design with current formal and informal notations. Scenario-based design, and the role of use cases. Design patterns. Lectures: three hours per week. Tutorial: one hour per week.

## SOEN 344 Software Architecture (3 credits)

Prerequisite: SOEN 343. Information hiding, dependencies, layers, partitions. Architecture descriptive notations. Common architectural styles. Components, patterns, and frameworks. Fundamental structures for architectures: layers; partitions; uses relation; client-supplier relation; peer-to-peer relation; callbacks. Roles and views of architecture. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

## SOEN 357 User Interface Design (3 credits)

Prerequisite: SOEN 342. The human side: I/O; memory; and information processing. Interaction: mental models; human error; interaction frame-
works and paradigms. Direct manipulation. User interface design: principles; standards; and guidelines. User-centred design: standards and design rationale; heuristic evaluation; iterative design; and prototyping. Task-centred design. Rationalized design: usability engineering; dialogue notations; user models; diagrammatic notations; and textual notations. Evaluation: with the user; without the user; quantitative; and qualitative. Implementation support. Help and documentation. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

## SOEN 384 Management and Quality Control in Software Development (3 credits)

Prerequisite: ENCS 282; SOEN 337, 341. Organization of large software development. Roles of team members, leaders, managers, stakeholders, and users. Tools for monitoring and controlling a schedule. Financial, organizational, human, and computational resources allocation and control. Project and quality reviews, inspections, and walkthroughs. Risk management. Communication and collaboration. Cause and effects of project failure. Project management via the Internet. Quality assurance and control. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for SOEN 345 or 383 may not take this course for credit.

## SOEN 385 Control Systems and <br> Applications (3 credits)

Prerequisite: EMAT 233; ENGR 275. Physical modelling: block diagrams; feedback; open and closed loops. Linear differential equations; differential operators; free, forced, and total response; steady-state and transient response. Laplace transform and inverse transform; second-order systems. Overview of transfer fucntions and stability. Computer simulation of control systems. Applications to physical systems: motor control; heating systems; servo systems; ship and aircraft control. Lectures: three hours per week. Tutorial: one hour per week.

## SOEN 390 Software Development Project

 (3 credits)Prerequisite: SOEN 344 and 357 previously or concurrently. Students will work in teams to design and implement a software project from requirements provided by the coordinator. Each team will demonstrate the software and prepare adequate documentation for it. In addition, each student will write an individual report. Lectures: three hours per week. Tutorial: one hour per week.

## SOEN 422 Embedded Systems and Software (3 credits)

 Prerequisite: COMP 346. Characteristics of embedded systems. Microcontroller architecture and typical target systems. Programming issuesrelated to mixed languages. Real-time kernel services: task management; intertask communication and synchronization; memory management; time management; interrupt support; configuration; and initialization. Development methods: state machines and fuzzy logic. Debugging methods for interrupts. Testing and simulation methods. Lectures: three hours per week. NOTE: Students who have received credit for COEN 421 may not take this course for credit.

SOEN 423 Distributed Systems (3 credits) Prerequisite: COMP 346. Introduction to the theory of distributed systems and networks. Distributed system and network characteristics: failure; delay/asynchrony; and throughput. Types of network interaction. Fault tolerance. Recovery from failure. Lectures: three hours per week.

SOEN 431 Formal Methods (3 credits) Prerequisite: SOEN 342, 343. Components of formal systems. Formal methods; levels of formalism. Integrating formal methods into the existing software life-cycle process model for a given project. Attributes of a formal specification language. Formal notations based on extended finite state machines; case studies involving the design of user interfaces, reactive systems, and concurrent systems. Software development using formal methods, including tools for: type checking; debugging; verifying checkable properties; validation of refinements; and code generation from refinements. Lectures: three hours per week.

## SOEN 448 Management of Evolving

 Systems (3 credits)Prerequisite: SOEN 342, 343, 344. Software maintenance: corrective; perfective; and adaptive. Software reuse; construction of reusable software. Techniques for reverse engineering and re-engineering software. Software development as "growing" software. Long-term evolution of software systems. Legacy systems. Lectures: three hours per week.

## SOEN 449 Component Engineering (3 credits)

Prerequisite: SOEN 344. Review of high-level language concepts and abstraction mechanisms. Programming with functional and logical languages. Typed vs. untyped languages. The use of scripting languages and other language-based techniques to assemble systems from high-level components. Lectures: three hours per week.

## SOEN 475 Imaging and Visualization (3 credits)

Prerequisite: COMP 471. Graphical application programmer interfaces. Generating images from two- and three-dimensional data. Review of simulation techniques. Application of advanced graphics techniques to mathematics, physics, engineering, medicine, and other areas. Lectures: three hours per week.

## SOEN 490 Software Engineering Design Project (4 credits)

Prerequisite: SOEN 337, 342, 343, 344, 390. Students will work in teams of 10 to 12 members to construct a significant software application. Team members will give a presentation of their contribution to the project. Laboratory: six hours per week.

# 7180 dIGItal IMAGE/SOUND AND COMPUTER SCIENCE 


$\left.\begin{array}{lll}\text { DFAR 451 } & \text { Interactive Multimedia } & 3.00 \\ \text { DFAR 452 } & \text { Tri-Media Productions } & 3.00 \\ \text { 300-Level } & 3 \text { credits chosen from DFAR } 352^{3}, 353^{3}, 354^{3} & \\ & 3-6 \text { credits chosen from DFAR } 355^{3}, 356^{3}, 357^{3}, 358^{3} & \\ \text { 400-Level } & 3-6 \text { credits chosen from DFAR } 453^{3}, 454^{3}, 455^{3}, 456^{3}, 457^{3}, 458^{3} \\ \text { Electives } & 6-9 \text { credits chosen from FMAN, DART, EAMT, EART, or other }\end{array}\right)$

The Digital Image/Sound Major is limited to students who are enrolled in or simultaneously applying

## Admission

Requirements for the Computer Science Applications Option and who are qualified for the Fine Arts component. Applicants must fulfil the admission requirements for the Computer Science Option in Computer Applications (see §71.10.2) and be accepted into the Computer Applications Option. In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Digital Image/Sound and the Fine Arts. All applicants must submit a portfolio to the Program Office, Visual Arts Building, Room 244, before March 3, 2003. Further information may be obtained from the following Web site: http://digital.concordia.ca/ or by contacting the Department of Design Art (Digital Image/Sound Major) at (514) 848-4626 or 848-4789.

## FACULTY OF FINE ARTS

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| :---: | :---: |
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| 81.110 | STUDIO ARTS |
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|  | 81.110.2 Ceramics |
|  | 81.110.3 Fibres |
|  | 81.110.4 Interdisciplinary Studies |
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|  | 81.110.9 Women and the Fine Arts |
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FACULTY OF FINE ARTS

Dean<br>CHRISTOPHER JACKSON

## Associate Deans

LISELYN ADAMS, Research and Graduate
Studies
WOLFGANG KROL, Physical Resources
KATHLEEN PERRY, Resources and
Development
BRIAN FOSS, Academic and Student Affairs

|  | Associate Deans <br> LISELYN ADAMS, Research and Graduate <br> Studies <br> WOLFGANG KROL, Physical Resources |
| :--- | :--- |
| Location | Sir George Williams Campus <br> Visual Arts Building, Room: VA 250 <br> (514) 848-4600 <br> http://fofa.concordia.ca |
| Objectives | Since its creation more than 25 years ago, the Faculty of Fine Arts has achieved an internationally <br> recognized standard of excellence in undergraduate education with the visual and performing arts. <br> The Faculty situates its students within both the pluralism of the academic experience of the University <br> and our multicultural urban environment. At the same time, Fine Arts curriculum and teaching responds <br> to the context and demands of a changing artistic community. <br> Programs and courses in studio or academic disciplines within the visual and performing arts prepare <br> students for entry into that community or for higher education in the arts. |

Structure
The Faculty of Fine Arts has two divisions offering numerous programs.
The PERFORMING ARTS DIVISION consists of the following:
Calendar Section
Contemporary Dance 81.70
Music 81.100
Theatre
81.120

The VISUAL ARTS DIVISION consists of the following:

| Art Education and Art Therapy | 81.40 |
| :--- | :--- |
| Art History | 81.50 |
| Cinema | 81.60 |
| Design Art | 81.80 |
| Digital Image/Sound and the Fine Arts | 81.90 |
| Studio Arts | 81.110 |

### 81.10 PROGRAMS AND ADMISSION REQUIREMENTS

General admission requirements are listed in $\S 13$. Specific requirements for admission to the various programs leading to the BFA degree are set out in the first column of the following listings. They refer to the table of cégep profiles and other specific requirements defined below.

| Profile | Requirements |
| ---: | :--- |
| 0.00 | Diploma of Collegial Studies (DEC — Diplôme d'études collégiales) |
| 10.12 | Mathematics 103, 105, 203 |
| A | Interview/Audition |
| G | Letter of intent |
| K | Submission of a portfolio of representative work |

Programs offered:
For information concerning any of the following programs, please consult the calendar section listed opposite each program.

| Recommended <br> Profile and Specific Requirements | Program | Calendar Section |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |
|  | Specializations: |  |
| 0.00, G,K | Art Education | 81.40 |
| 0.00, A,G,K | Design for the Theatre | 81.120 |
| 0.00, A,G,K | Film Production | 81.60 |
| 0.00, A,G,K | Film Studies | 81.60 |
| 0.00, A | Jazz Studies | 81.100 |
| 0.00, A | Music Performance Studies | 81.100 |
| 0.00, A | Music Theory/Composition | 81.100 |
| 0.00, A | Selected Music Studies | 81.100 |
| 0.00, A | Theatre and Development | 81.120 |
| 0.00, A | Theatre Performance | 81.120 |
|  | Majors: |  |
| 0.00, G,K | Art Education | 81.40 |
| 0.00 | Art History | 81.50 |
| 0.00, G,K | Art History and Film Studies | 81.50, 81.60 |
| 0.00, G,K | Art History and Studio Art | 81.50 |
| 0.00, K | Ceramics | 81.110 |
| 0.00, A | Contemporary Dance | 81.70 |
| 0.00, A,G,K | Design Art | 81.80 |
| 0.00, 10.12, G,K | Digital Image/Sound and the Fine Arts | 81.90 |
| 0.00, A | Electroacoustic Studies | 81.100 |
| 0.00, K | Fibres | 81.110 |
| 0.00, A,G,K | Film Animation | 81.60 |
| 0.00, A,G,K | Film Production | 81.60 |
| 0.00, A, G, K | Film Studies | 81.60 |
| 0.00, A | Integrative Music Studies | 81.100 |
| 0.00, A,G,K | Interdisciplinary Studies | 81.110 |
| 0.00, G,K | Painting and Drawing | 81.110 |
| 0.00, A,G,K | Photography | 81.110 |
| 0.00, A,K | Playwriting | 81.120 |
| 0.00, K | Print Media | 81.110 |
| 0.00, K | Sculpture | 81.110 |
| 0.00, G,K | Studio Art | 81.110 |
| 0.00, A,G | Theatre | 81.120 |
|  | Minors: |  |
| 0.00 | Art History | 81.50 |
| 0.00, G,K | Art History and Studio Art | 81.50 |
| 0.00, A | Cinema | 81.60 |
| 0.00, G, K | Digital Image/Sound and the Fine Arts | 81.90 |
| 0.00, A | Electroacoustic Studies | 81.100 |
| 0.00, A,G,K | Film Animation | 81.60 |
| 0.00, A | Film Studies | 81.60 |
| 0.00, G | Interdisciplinary Studies in Sexuality | 81.60 .4 |
| 0.00, A | Music | 81.100 |
| 0.00, A,G,K | Photography | 81.110 |
| 0.00, K | Print Media | 81.110 |
| 0.00, A | Theatre | 81.120 |
| 0.00, G | Women and the Fine Arts | 81.110 |

Transfer Students

Applicants who have completed courses in other colleges or universities may be granted credits (advanced standing) on the basis of the programs at Concordia University. These advanced standing credits will normally be awarded as general credits and as such may not be equivalent to specific first-year courses at Concordia.

Applicants to a second undergraduate degree must complete a minimum of 60 credits, other than those credited towards the first degree, at least 36 of which must be taken in the new field of Specialization (§16.1.3). Students transferring credits towards a first degree must complete a minimum of 45 credits at Concordia (see §16.1.3).
Students must complete all program and degree requirements, as well as the Faculty of Fine Arts residence requirements (see §81.20.2).

| Mature Entry | General admission requirements to the 108-credit program (Mature Entry) are listed in $\S 14$. <br> Students admitted into the Faculty of Fine Arts through the Mature Entry plan are required to <br> complete 18 credits in addition to the 90 credits normally required for the BFA degree. |
| :--- | :--- |
| Extended Credit Definition of the Extended Credit Program (ECP) is listed in $\S 13.2$. Students admitted to an Extended <br> Credit Program in Fine Arts are required to complete an additional 30 credits for the degree. Advanced <br> standing credits awarded for Ontario Academic Courses (OACs) must be applied towards the ECP <br> portion of a student's degree program. |  |

### 81.20 DEGREE REQUIREMENTS

Students preparing for the BFA degree require a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours of work spread across lectures, conferences, tutorials, studios, rehearsals or practice periods, tests, examinations, and personal work.
81.20 .1

BFA Degree
Requirements
81.20 .2

Residence
Requirements

1. A candidate for the BFA degree must have qualified for admission to, and successfully completed a program of concentration in the form of a Specialization (See §16.2.3) or Major (See §16.2.3) program in the Faculty of Fine Arts. A selection is made upon entry, prior to registration. The requirement of selecting a program upon entry should not be thought of as being necessarily a final commitment. Students wishing to transfer out of one degree program must satisfy the admission requirements of the program they seek to enter. Program changes are, however, subject to limitations where certain programs are in great demand. Students should be aware that to effect certain transfers they may be required to complete more than the 90 credits normally required for the degree.
2. A candidate for graduation must satisfy the Fine Arts General Education Requirement by successfully completing a minimum of six credits from course offerings outside the Fine Arts academic sectors (Visual Arts and Performing Arts). The non-Fine Arts academic sectors are defined as: Humanities, Social Sciences, Sciences, Business, Engineering and Computer Science. BFA students graduating with the Major in Digital Image/Sound and the Fine Arts - Option Computer Applications double program or the Specialization in Art Education will be considered as having satisfied the General Education Requirement.
The courses FRAN 373, 374; COMS 301, 302, 303, 304, 306, 416, 417, 434 can only be applied within a student's degree as electives from the Visual Arts sector and therefore do not fulfil the General Education Requirement. This list is subject to modification.
3. A candidate for graduation must have successfully completed the course FFAR $250^{6}$.
4. A candidate for graduation normally may apply no more than 54 credits in studio work towards the 90 credits required for the BFA degree.
5. A candidate for graduation must fulfil all university graduation requirements (See §16.2.4).
6. The credits obtained for any course may not be used to satisfy the requirements of more than one program.

Students are subject to the university residence requirement (see §16.1.3) which states that of the 90 credits required for the BFA degree, a minimum of 45 credits must be taken at Concordia University. Combining both residence requirements implies that the full-time student must enrol for a minimum of two years of study at Concordia University.
To fulfil the residence requirements for a BFA degree with a concentration in:

1. Art Education, Ceramics, Fibres, Painting and Drawing, Print Media, Sculpture, or Studio Art: a minimum of 30 credits in Studio Art and six credits in Art History must be completed at Concordia.
2. Art History, Art History and Studio Art, Art History and Film Studies, Cinema, Design Art, Digital Image/Sound and the Fine Arts, Film Animation, Film Production, Film Studies, Photography, Contemporary Dance, or Interdisciplinary Studies: at least half of the concentration requirements must be completed at Concordia.
3. Theatre, Theatre and Development, Theatre Performance, or Design for the Theatre: Conception and Realization: a minimum of 30 credits from the Department of Theatre must be completed at Concordia.
4. Integrative Music Studies, Jazz Studies, Music Performance Studies, Music Theory/Composition, or Selected Music Studies: a minimum of 30 credits required from the Department of Music must be completed at Concordia.
5. Minor programs: at least half of the required credits must be completed at Concordia.
81.20 .3
81.20 .4

Academic
Performance
Requirements

The normal course load for students enrolled in the Faculty of Fine Arts is 30 credits per year for all full-time students, and a maximum of 18 credits per year for part-time students.
i) Full-time students may not register for more than 18 credits of their maximum 30 credits in any studio area in any given academic year. Part-time students may not register for more than 12 credits.
ii) Students may register for a maximum of six credits in which films are produced as a course requirement during any given academic year. See $\$ 81.60 .2$ for list of courses. Also, students are limited, during their degree program, to 18 credits in Film Production or 24 credits in Film Animation courses in which films are produced as a course requirement (\$81.60.2).
iii) Students may register for a maximum of six credits in Theatre Production in any given academic year, up to a maximum of 18 credits in all.
iv) Students may register for a maximum of six credits in Music Private Study in any given academic year, up to a maximum of 18 credits in their degree program.
v) Students may register for a maximum of nine credits in Independent Study courses in their degree program. In the case of disciplines not offering three-credit Independent Study courses, students may register for a maximum of two six-credit Independent Study courses in their degree program.

For purposes of these regulations, "failure" includes the grades "F", "FNS", "R", and "NR". Failed students are not eligible to write supplemental examinations.

## Definitions of Failed Standing

1. Failed - May Not Re-Register Without Special Permission
a) Any student who fails courses equivalent to more than the number of credits prescribed below before obtaining the number on record specified, will be Failed. In order to re-register, failed students must obtain special permission from the Office of Student Affairs.

FAILED CREDITS
More Than
12
24
36
b) A Failed student who is given permission to re-register is placed on Academic Probation.
c) A student placed on Academic Probation must pass the next 30 credits on the first attempt and satisfy any other conditions specified for readmission. A student failing to meet these requirements is in failed standing for a second time and will be dismissed from the University. In subsequent years, should the student wish to return to university studies, he or she must contact the Office of the Registrar for information concerning conditions and procedures for seeking readmission. Decisions of the relevant authority in the Faculty to which application is made are final.

## 2. Failed - May Not Re-Register

Any student who fails courses equivalent to more than the number prescribed below will be Failed and dismissed. Any Probationary Student who fails to fulfil the terms of the probation will also be Failed and may not apply for readmission. In subsequent years, should the student wish to return to university studies, he or she must contact the Office of the Registrar for information concerning conditions and procedures for seeking readmission. Decisions of the relevant authority in the Faculty to which application is made are final.

FAILED CREDITS
More Than
30
36
42

## APPLICABLE PROGRAMS

90-Credit and Certificate Programs
Mature Entry Program
Extended Credit Program

### 81.30 FINE ARTS COURSES OF FACULTY-WIDE INTEREST

## FFAR:

## FFAR 250

The Visual and Performing
Arts in Canada ( 6 credits)
A lecture course surveying the current practice and theory of the visual and performing arts in Canada, with a special focus on interdisciplinary forms. The institutional, regional, and cultural traditions of the arts in Canada are discussed as contexts of contemporary developments; as well, artistic avant-gardes are related to popular cultures and the media. Invited guests and other experts in various disciplines are an essential part of the syllabus.
NOTE: Students who have received credit for FFAR 251 or 252 or IDYS 250 may not take this course for credit.

## FFAR 251 The Visual and Performing

Arts in Canada I (3 credits)
A lecture course surveying the current practice and theory of the visual and performing arts in Canada, with a special focus on interdisciplinary forms. The institutional, regional, and cultural traditions of the arts in Canada are discussed as contexts of contemporary developments; as well, artistic avant-gardes are related to popular cultures and the media. Invited guests and other experts in various disciplines are an essential part of the syllabus. This course is equivalent to the first term of FFAR 250.
NOTE: Students enrolled in a BFA program must register for FFAR 250. Students who have received credit for FFAR 250 or 252 in a previous academic year may not take this course for credit.
NOTE: Students who have received credit for IDYS 251 may not take this course for credit.

## FFAR 252 The Visual and Performing Arts in Canada II (3 credits)

A lecture course surveying the current practice and theory of the visual and performing arts in Canada, with a special focus on interdisciplinary
forms. The institutional, regional, and cultural traditions of the arts in Canada are discussed as contexts of contemporary developments; as well, artistic avant-gardes are related to popular cultures and the media. Invited guests and other experts in various disciplines are an essential part of the syllabus. This course is equivalent to the second term of FFAR 250.
NOTE: Students enrolled in a BFA program must register for FFAR 250. Students who have received credit for FFAR 250 or 251 in a previous academic year may not take this course for credit.
NOTE: Students who have received credit for IDYS 252 may not take this course for credit.

## FFAR 390 HIV/AIDS: Cultural, Social and Scientific Aspects of the Pandemic ( 6 credits)

An interdisciplinary survey of the major issues and challenges of the HIV pandemic. Such topics as the biology of the virus, therapeutic, clinical and epidemiological research developments, the social costs of sexual taboos and discrimination, and media and artistic representation by and of people with HIV are presented by faculty and visiting community experts. The epidemics in the Western hemisphere, Africa, Asia, and other regions are addressed. Learning is based on lectures, weekly tutorials, and community involvement.

## FFAR $398 \quad$ Special Topics in Fine Arts

 (3 credits)A course which provides an opportunity for the study of specialized aspects of Fine Arts. NOTE C/See §200.3

## FFAR $399 \quad$ Special Topics in Fine Arts

( 6 credits)
A course which provides an opportunity for the study of specialized aspects of Fine Arts. NOTE C/See §200.3

#  



Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.
The superscript indicates credit value.

## N.B. The BFA Specialization in Art Education

 leads to teacher certification by the ministère de I'Éducation du Québec (MEQ).```
1 2 0 ~ B F A ~ S p e c i a l i z a t i o n ~ i n ~ A r t ~ E d u c a t i o n ~
    ARTE 220', 2303, 320}\mp@subsup{}{}{3},33\mp@subsup{0}{}{3},34\mp@subsup{0}{}{3},42\mp@subsup{0}{}{3}\mathrm{ ,
    422 }\mp@subsup{}{}{3},424\mp@subsup{4}{}{3},43\mp@subsup{4}{}{3
    3 Chosen from INTE 2903, 2913
    EDUC 3013, 3053
    ARTE 3523',3543, 4983
    ARTE 423',}42\mp@subsup{5}{}{9
    Chosen from ARTE 3983 offerings
    FFAR 2506
    12 DRAW 2006; PTNG 2006
    12 Studio Art courses chosen from
        FBRS 240 , 2606; CERA 2306;
        SCUL 2006
    6 Chosen from ARTH 370 3, 371 3, 373 3
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6 Studio Art or Art History elective credits from Group B, C or F
15 EDUC $210^{6}, 445^{3}, 450^{3}, 454^{3}$
66 BFA Major in Art Education
21 ARTE $220^{3}, 230^{3}, 320^{3}, 330^{3}, 340^{3}, 432^{3}$, $434^{3}$
12 Studio Art courses chosen from CERA $2300^{6}$; FBRS $240^{6}, 260^{6}$; SCUL 200 ${ }^{6}$; PTNG $200^{6}$
3 ARTE $398^{3}$
6 DRAW $200^{6}$
6 Chosen from ARTE $352^{3}, 354^{3}, 398^{3}, 498^{3}$
6 Art History elective credits from Group B, C or F
6 Studio Art or Art History elective credits
6 EDUC $210^{6}$
NOTE: This program does not lead to teacher
certification. Electives permit a wider choice in
courses in preparation for graduate study in
areas such as art therapy, museum education,
recreation, and arts administration.
81.40 .1

Admission to the Specialization and
Major in Art Education

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Art Education.
All applicants must submit a portfolio of their own work, as well as a letter of intent as part of the admission process.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit photographs and/or slides of their work. Return shipment of out-of-town portfolios is by prior arrangement only.
Portfolios are submitted to the Art Education Portfolio Evaluation Committee, Visual Arts Building, Room 209-1, prior to the deadline of March 18, 2003.

All entering students are automatically enrolled in the Major. The Specialization is offered at the thirdyear and fourth-year levels. Upon completion of the second year (completion of 60 credits including ARTE 220, 230, 320, 330), students in the Major may apply for transfer to the Specialization program.
Admission to the Specialization is assessed on the basis of the applicant's suitability for school-based teaching, grades for courses completed in the first two years, a letter of intent, two references, the completion of a 70-hour internship in an elementary school (ARTE 230), and, in some cases, an interview. Students must apply to the Department by the deadline of March 1 .

## Academic Standing

To remain in good academic standing in the Specialization and be recommended for the Québec Art Specialist teaching permit, students must:

1. Achieve at least a "B" grade in the practicum courses ARTE 420, 423, and 425.
a. Students who fail any of the above courses are required to withdraw from the Specialization program.
b. Students who obtain a passing grade in any of the above courses that is below a " B " will be placed on conditional standing within the program and will be so informed in writing. These students will be allowed to repeat the practicum only once in order to achieve the required grade. Students who do not achieve the required grade in the repeated course will be required to withdraw from the Specialization program.
2. Maintain an overall grade average of "B-" or higher in courses of the third and fourth years. Students who do not maintain the minimum grade average during that time will be required to withdraw from the Specialization program.

## Art Education:

## Courses

## ARTE 201 Art in Early Childhood I

 (3 credits)Prerequisite: Enrolment in the Specialization in Early Childhood or Major in Child Studies, or written permission of the Department of Art Education and Art Therapy. An introductory study of the art-making process in early childhood. This course is a studio workshop which investigates potential media and teaching approaches appropriate for the young child.

## ARTE 202 Art in Early Childhood II

(3 credits)
Prerequisite: ARTE 201. A continuation of ARTE 201.

ARTE 203 Arts in Recreation (3 credits)
A workshop/seminar course in which students are introduced to various art forms currently used in recreation centres. Intrinsic to the course content is a consideration of the role of the arts in recreation and leisure populations.

## ARTE 220

## Foundations of Art Education

 (3 credits)A survey of content and contexts of the art education profession. In studio activities, students explore art making skills and techniques, creative expression, artistic heritage and art in society.
This content is related to lesson planning for schools, museums, and community settings. Students are introduced to children's artistic development as well as basic management and
safety standards for the art classroom. Practicum experiences will include observation of children's art processes and some teaching.
NOTE: Students who have received credit for ARTE 200 may not take this course for credit.

## ARTE 230 Practicum: Observation and Analysis of Children's Learning (3 credits)

Prerequisite: ARTE 220, or permission of the Department. This practicum course gives students first-hand experience and knowledge of children's learning as it occurs in the schools. It also provides students with a theoretical framework for observing and analysing individual and group learning processes in the art classroom. It permits students to develop preliminary skills in assessing and meeting the needs of individual children. Students are introduced to methods for evaluating learning and for critically reflecting on learning and teaching. The practicum experience consists of a placement in a primary school one day a week for a total of 70 hours.
NOTE: Students who have received credit for ARTE 200 may not take this course for credit.

## ARTE 320 Multi-Disciplinary Approaches

to Art and Teaching (3 credits)
Prerequisite: ARTE 230, or permission of the Department. This course investigates various creative, historical, and critical approaches to art as a basis for developing curriculum content. Students expand their repertoire of skills and techniques for planning and teaching lessons with multiple dimensions. Students also consider the specific requirements of students with special needs and those at different age levels. This course includes a practicum component. NOTE: Students who have received credit for ARTE 300 may not take this course for credit.

## ARTE 330 Introduction to Community Art Education (3 credits)

Prerequisite: ARTE 320, or permission of the Department. The course investigates the various isues and concerns related to community art education. Students develop skills in assessing community needs. After observation and studio research, students develop and propose an art education curriculum for a specific community setting or population. This course includes a practicum component.
NOTE: Students who have received credit for ARTE 300 may not take this course for credit.

## ARTE 340 Art Education for Adolescents and Adults (3 credits)

Prerequisite: Second-year standing in the Major or Specialization in Art Education, or permission of the Department. Students are introduced to theories of adolescent and adult development, and the effect these have on their behaviour and attitudes towards learning and art making. Students learn about different types of group management and support techniques appropriate for adolescent and adult students. The course
presents ways to effectively integrate aspects of popular culture into curriculum planning.

ARTE 352 Light-Based Media (3 credits) Prerequisite: Second-year standing in the Major or Specialization in Art Education, or permission of the Department. Students are introduced to light-based imaging processes such as photography and xerography. Students plan and successfully execute a lesson based on one of these processes. The course explores ways of evaluating and responding to light-based images. NOTE: Students who have received credit for ARTE 430 may not take this course for credit.

ARTE 354 Time-Based Media (3 credits) Prerequisite: Second-year standing in the Major or Specialization in Art Education, or permission of the Department. Students are introduced to time-based imaging processes such as video and multi-media installations. Students plan and successfully execute a lesson based on one of these processes. The course explores ways of evaluating and responding to time-based images
NOTE: Students who have received credit for ARTE 430 may not take this course for credit.

## ARTE $398 \quad$ Special Topics in Art <br> Education (3 credits)

Prerequisite: Second-year standing in the Major or Specialization in Art Education, or permission of the Department. A course which provides an opportunity for the study of specialized aspects of art education. Topics chosen for consideration vary from year to year.

## ARTE 420 Art Education for Elementary School (3 credits)

Prerequisite: ARTE 320, or permission of the Department. Students apply theories of development and learning to design appropriate lessons for elementary school practicum settings. The course explores currently available teaching resources such as textbooks, MEQ curriculum, and communication technologies. The course also investigates processes and procedures for assessment appropriate to an elementary art classroom. A practicum of 140 hours in an elementary classroom is required in this course.

## ARTE 422 Art Education in the Secondary School I (3 credits) <br> Prerequisite: Fourth-year standing in the Specialization in Art Education, or permission of the Department. A lecture/seminar course where students identify themes and concerns that are appropriate to secondary school students with diverse backgrounds. Students explore the currently available teaching resources such as MEQ curriculum and others, textbooks and communication technology.

## ARTE 423 <br> Practicum in the Secondary School I (3 credits)

Prerequisite: Fourth-year standing in the Specialization in Art Education, or permission of
the Department. Student teachers observe and assist a secondary school art specialist in the development and implementation of an effective art program during a practicum of 140 hours. Student teachers also observe the social and cultural dynamics of the school and initiate positive interactions with their students and professional colleagues.

ARTE 424 Art Education in the Secondary School II (3 credits)
Prerequisite: Fourth-year standing in the Specialization in Art Education and ARTE 422, or permission of the Department. The course concentrates on the objectives, goals, and content of the MEQ Secondary School Curriculum Guidelines in visual arts. Students analyse, reflect, and evaluate their own practice and philosophy of art learning and teaching within the wider context of school and society.

ARTE 425 Practicum in the Secondary School II (9 credits)
Prerequisite: Fourth-year standing in the Specialization in Art Education and ARTE 423, or permission of the Department. This course is an extended teaching practicum in a secondary school of 350 hours. Student teachers implement curriculum planning and classroom management that respects ethnic, socio-economic, and cultural diversity, and that successfully integrates students with special needs. Student teachers also apply safe use of art materials and appropriate art learning assessment procedures.

## ARTE 432 Community Art Education: Theory and Practice (3 credits)

Prerequisite: ARTE 330, or permission of the Department. Students connect theory and practice by planning and teaching appropriate art events for a particular community setting or population. Students investigate organizational and administrative approaches necessary for successful community art education programming.

ARTE 434
Professional Practice for Art Educators (3 credits)
Prerequisite: ARTE 420 or 432 , or permission of the Department. Students develop, teach, and then evaluate an art program during a practicum in a community setting. Students formulate and express a philosophy of teaching art in a community setting that connects theory, critical thinking, reflective practice and fieldwork experience. Students investigate entrepreneurial skills needed to market community art programs. Specialization program students must complete a 35 -hour practicum component teaching preschool children.

## ARTE 498 Special Topics in Inter-Related Media and Technologies (3 credits)

Prerequisite: Second-year standing in the Major or Specialization in Art Education, or permission of the Department. A course which provides an opportunity for the study of specialized aspects of art education. Topics chosen for consideration vary from year to year.

## Art Therapy:

This course in Art Therapy is intended as part preparation for graduate study in this area.

## ATRP 301 An Introduction to Art Therapy (3 credits)

Prerequisite: Second-year standing or equivalent and written permission from the Art Therapy Unit, PSYC 200 (or equivalent), Major in Art Education or 12 credits in Studio Art. Lectures, readings, and workshops which examine both the history and basic concepts of art therapy and their application.

ART HISTORY

| Faculty | Chair <br> LOREN LERNER, Associate Professor | BRIAN FOSS CATHERINE MACKENZIE |
| :---: | :---: | :---: |
|  | Professors <br> JEAN BELISLE <br> SANDRA PAIKOWSKY <br> WARREN SANDERSON | Assistant Professors ROBERT GIFFORD KRISTINA HUNEAULT JOHANNE SLOAN |
|  | Associate Professors JOAN ACLAND OLIVIER ASSELIN |  |
| Location | Sir George Williams Campus Visual Arts Building, Room: VA 432 (514) 848-4700 |  |
| Department Objectives | Art History is important for both the student scholar and the student artist. An understanding of creative and visual responses to the world throughout the history of humankind gives students valuable perspectives on both their own work and on contemporary visual culture. Art History is more than art appreciation. It is a lively, at times even controversial, discipline which invites investigation of the roles which intellectual, cultural, political, social, and economic factors play in defining the work of art and its subsequent reception. For this reason, students are encouraged to explore such disciplines as history, literature, philosophy, religion, women's studies and the social sciences, and are strongly advised to study languages appropriate to their interests. A program carefully structured by the student and an adviser may open up for the art history graduate a future in a variety of fields - museums, galleries and libraries, conservation, education, journalism, and research. The Department of Art History offers Major and Minor programs, providing students with a solid, but individualized foundation in the critical issues involved in a full understanding of the work of art. Also available are the Major and Minor programs in Art History and Studio Art which balance studio work with historical/theoretical studies, and a Major in Art History and Film Studies which examines art and film from a variety of social, cultural, political, and critical perspectives. |  |

Students are responsible for satisfying their particular degree requirements; hence, the following sequence must be read in conjunction with $\$ 81.20$. The superscript indicates credit value.

```
66 BFA Major in Art History
    ARTH 2006
    ARTH 300 }\mp@subsup{}{}{3
    Chosen from Group A
    Group B: ARTH 3603,3613,362 
    Group B: ARTH 363',364,
    Group B: ARTH 3663',3673},36\mp@subsup{8}{}{3
    Group B: Art History electives
    Chosen from Group C
    6 Chosen from Group D
    3 Chosen from Group E or Group F
    *24 Chosen from at least three Groups in Art
        History, in consultation with an assigned
        adviser
*Students may substitute credits from the Faculty
of Fine Arts for up to }12\mathrm{ credits in Art History.
```


## 60 BFA Major in Art History and Film Studies

6 ARTH $200^{6}$ to be taken as first six credits in studies in Art History
6 Chosen from ARTH $353^{3}, 354^{3}$
3 Chosen from ARTH $366^{3}, 367^{3}, 368^{3}$

3 Chosen from ARTH $370^{3}, 371^{3}, 372^{3}$, $373^{3}, 374^{3}, 375^{3}, 376^{3}$
3 Chosen from ARTH $379^{3}, 381^{3}, 388^{3}$, $400^{3}$
3 Chosen from ARTH $383^{3}, 384^{3}, 385^{3}$, $386^{3}, 387^{3}, 389^{3}, 391^{3}, 392^{3}$
6 Art History electives
6 FMST $212^{6}$
6 Chosen from FMST $311^{3}, 312^{3}, 318^{3}$, $321^{6}, 325^{3}, 332^{3}$; VDEO $350^{6}$
6 Chosen from FMST $211^{6}, 322^{6}$
3 Chosen from FMST $214^{3}, 215^{3}, 217^{3}$, $418^{3}, 419^{3}$
3 Chosen from FMST $327^{3}, 329^{3}, 416^{3}$, $422^{3}, 423^{3}, 424^{3}, 425^{3}$
3 Film Studies electives
3 ARTH $348^{3} /$ FMST $348^{3}$
3 ARTH $448^{3} /$ FMST $448^{3}$
60 BFA Major in Art History and Studio Art
6 ARTH $200^{6}$ to be taken as first six credits in studies in Art History

| 3 | ARTH $300^{3}$ |
| :--- | :--- |
| 6 | Chosen from ARTH $433^{6}, 434^{6}$ or Studio |
|  | Art elective |
| 6 | Chosen from ARTX $250^{6}, 260^{6}, 270^{6}$ or a |
|  | Studio Art elective, in consultation with |
| an adviser |  |
| 21 | Art History electives |
| 18 | Studio Art electives chosen from studio |
| courses offered by the Departments of |  |
| $\quad$ Design Art and Studio Arts |  |
| *ART 460 may be substituted for six credits in |  |
| Art History. |  |

30 Minor in Art History
6 ARTH $200^{6}$ to be taken as first six credits in studies in Art History.

3 ARTH $300^{3}$
21 Art History electives chosen from at least three of the Groups in Art History, in consultation with an assigned adviser

30 Minor in Art History and Studio Art
6 ARTH $200^{6}$ to be taken as first six credits in studies in Art History
3 ARTH $300^{3}$
6 ARTX $250^{6}, 260^{6}, 270^{6}$ or a Studio Art elective, in consultation with an adviser
6-9 Art History electives
6-9 Studio Art electives
81.50 .1
Admission to the
Major and Minor in
Art History and
Studio Art

There are no specific courses or procedures required for the Major and Minor in Art History other than the successful completion of a two-year pre-university cégep program (or equivalent). In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major or Minor in Art History and Studio Art.
All applicants must submit a portfolio of their own work, as well as a letter of intent as part of the admission process. In addition to recommending admission to a program, the Portfolio Evaluation Committee may recommend the completion of either ARTX 250, 260 or 270 as part of a student's program.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.

5 Works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit photographs and/or slides of their work. Return shipment of out-of-town portfolios is by prior arrangement only.
Portfolios are submitted to the Portfolio Evaluation Committee, Visual Arts Building, Room 237, between March 3-7, 2003.
81.50 .2

Admission to the Major in Art History and Film Studies

Applicants are required to submit a letter of intent and a written portfolio for admission to the Major in Art History and Film Studies.
In order to allow themselves sufficient preparatory time, applicants are strongly encouraged to contact the program coordinator in January for detailed information regarding these requirements and the submission deadline dates.

## GROUPS:

A- Media Based
Studies

| ARTH 261 | Studies in Architecture (3 credits) | ARTH 352 | Aspects of the History of Textile Art (3 credits) |
| :---: | :---: | :---: | :---: |
| ARTH 262 | Studies in Drawing (3 credits) | ARTH 353 | Technology and Contemporary |
| ARTH 263 | Studies in the Print (3 credits) |  | Art (3 credits) |
| ARTH 264 | History of Ceramics (3 credits) | ARTH 354 | Gesamtkunstwerk (3 credits) |
| ARTH 265 | History of Sculpture (3 credits) | ARTH 433 | Materials and Methods in |
| ARTH 266 | History of Textile Art (3 credits) |  | Three-Dimensional Art |
| ARTH 348 | Special Topics in Art and Film (3 credits) | ARTH 434 | ( 6 credits) <br> Materials and Methods in |
| ARTH 349 | Aspects of the History of the Print (3 credits) |  | Drawing and Painting (6 credits) |
| ARTH 350 | Aspects of the History of Ceramics (3 credits) | ARTH 448 | Advanced Seminar in Art and Film ( 3 credits) |
| ARTH 351 | Aspects of the History of Sculpture (3 credits) |  |  |


| B - Period Studies | ARTH 270 | Icons of Architectural History (3 credits) | ARTH 365 | Aspects of Seventeenth- and Eighteenth-Century Western Art |
| :---: | :---: | :---: | :---: | :---: |
|  | ARTH 360 | Aspects of Ancient Greek Art and Architecture ( 3 credits) | ARTH 366 | and Architecture ( 3 credits) Aspects of Nineteenth-Century |
|  | ARTH 361 | Aspects of Ancient Roman Art and Architecture ( 3 credits) |  | Western Art and Architecture (3 credits) |
|  | ARTH 362 | Aspects of Early Christian and Byzantine Art and Architecture (3 credits) | ARTH 367 ARTH 368 | Aspects of Twentieth-Century Art and Architecture (3 credits) Aspects of Contemporary Art |
|  | ARTH 363 | Aspects of Medieval Art and Architecture ( 3 credits) | ARTH 498 | and Architecture ( 3 credits) Special Topics in the History of |
|  | ARTH 364 | Aspects of Fifteenth- and Sixteenth-Century European Art and Architecture ( 3 credits) |  | Art and Architecture (3 credits) |
| C-Art in Canada | ARTH 370 | Aspects of Canadian Art (3 credits) | ARTH 374 | Architecture and Urbanism in Montréal (3 credits) |
|  | ARTH 371 | Aspects of Canadian | ARTH 375 | Issues in the Montréal Art |
|  |  | Architecture (3 credits) |  | Milieu (3 credits) |
|  | ARTH 372 | Issues in Contemporary | ARTH 376 | Topics in Amerindian and Inuit |
|  |  | Canadian Architecture (3 credits) |  | Art (3 credits) |
|  | ARTH 373 | Issues in Contemporary Canadian Art (3 credits) |  |  |
| D - Methodology | ARTH 200 | Perspectives of Art History ( 6 credits) | ARTH 379 | Post-Colonial Theory in Art History (3 credits) |
|  | ARTH 283 | The Life and Work of ... (3 credits) | ARTH 380 | Historiography and Art History (3 credits) |
|  | ARTH 290 | Art History and Archaeology (3 credits) | ARTH 381 | Feminism and Art History (3 credits) |
|  | ARTH 298 | Special Topics in Genre Studies (3 credits) | ARTH 388 <br> ARTH 400 | Narration and Art (3 credits) Advanced Seminar in Art |
|  | ARTH 300 | Art Historical Methods (3 credits) |  | Historical Method (3 credits) |
| $E$ - Theory and Criticism | ARTH 383 ARTH 384 | Art and Philosophy (3 credits) Theories of Representation (3 credits) <br> Colour: Theory and Application in the Visual Arts (3 credits) The Art Object and the Viewer (3 credits) | ARTH 387 <br> ARTH 389 | Seminar in Art and Criticism (3 credits) <br> Issues in Ethnocultural Art Histories (3 credits) |
|  | ARTH 385 |  |  |  |
|  | ARTH 386 |  |  |  |
| F-Art and Society | ARTH 390 <br> ARTH 391 | Art Institutions (3 credits) | ARTH 393 <br> ARTH 398 | Art and Replication (3 credits) Special Topics in Art and |
|  | ARTH 391 | (3 credits) |  | Society (3 credits) |
|  | ARTH 392 | Gender Issues in Art and Art History (3 credits) |  |  |
| G - Tutored Studies |  | Intensive Study in Art History I ( 1.5 credits) | ARTH 401 | Independent Studies in Art History (3 credits) |
|  | ARTH 395 | Intensive Study in Art History II ( 1.5 credits) |  |  |
| Courses | ARTH 200 | Perspectives of Art History (6 credits) | ARTH 261 | Studies in Architecture (3 credits) |
|  | A critical overview of the history of art and architecture and a selective examination of canonical figures, movements, periods, and thematic issues. <br> NOTE: Students who have received credit for ARTH 284 may not take this course for credit. |  | The role and implications of selected materials and technology in architecture. |  |
|  |  |  |  |  |  |  |
|  |  |  | ARTH 262 <br> Drawing as arts. NOTE | Studies in Drawing (3 credits) art form and its relation to other See §200.3 |

ARTH 263 Studies in the Print (3 credits)
A selective examination of the development and uses of the print as an art form or a medium in Western and non-Western cultures.
NOTE A/See §200.3
ARTH 264 History of Ceramics ( 3 credits) A selective examination of the development and uses of ceramics as an art form or a medium in Western and non-Western traditions.
NOTE A/See §200.3
ARTH 265 History of Sculpture
(3 credits)
A selective examination of the development and uses of sculpture as an art form or a medium in Western traditions.

## ARTH 266 History of Textile Art

 (3 credits)A selective examination of the development of textile art in the Western and non-Western traditions. NOTE A/See §200.3

## ARTH 270

Icons of Architectural History (3 credits)
A study of key buildings of civilization in relation to the specific vocabulary of architecture, its techniques and conditions of construction. Consideration is given as to how and why these buildings have become icons in particular societies.

## ARTH 283 The Life and Work of ...

 (3 credits)A critical examination of the relationship of accounts of an artist's life to an interpretation of her or his work.

## ARTH 290 Art History and Archaeology

 (3 credits)An examination of the interrelationship between art history and archaeology as manifested in systems of classification, interpretation, periodization, stratification, as well as the valorization of series and fragments.
NOTE A/See §200.3
ARTH 298 Special Topics in Genre Studies (3 credits)
Topics pertaining to categories of subject matter such as landscape, portraiture, and still life. NOTE C/See §200.3

ARTH 300 Art Historical Methods (3 credits)
Prerequisite: ARTH 200. An in-depth examination of the methods used in art history to analyse and interpret works of art.

## ARTH 348 (also listed as FMST 348) Special Topics in Art and Film (3 credits)

A comparative examination of some aspects of art history and film studies. NOTE C/See §200.3

An examination of selected subjects in the history of the print.

ARTH 350 Aspects of the History of Ceramics (3 credits) An examination of selected subjects in the history of ceramics. NOTE A/See §200.3

## ARTH 351 Aspects of the History of

 Sculpture (3 credits) An examination of selected subjects in the history of sculpture.
## ARTH 352 Aspects of the History of Textile Art (3 credits)

An examination of selected subjects in the history of textile art. NOTE A/See §200.3

## ARTH 353 Technology and

Contemporary Art (3 credits)
A selective examination of the dynamics of the relationship between technology and contemporary art.

ARTH 354 Gesamtkunstwerk ( 3 credits) A selective examination of art which utilizes a number of media. The relationship to work in a single medium and historical concepts of multimedia are examined.

## ARTH 360 Aspects of Ancient Greek Art and Architecture (3 credits)

Selected subjects examined in relation to predominant characteristics of Ancient Greek art. NOTE A/See §200.3

## ARTH 361 Aspects of Ancient Roman Art and Architecture (3 credits)

Selected subjects examined in relation to predominant characteristics of Ancient Roman art. NOTE A/See §200.3

## ARTH 362 Aspects of Early Christian and Byzantine Art and Architecture (3 credits)

 Selected subjects examined in relation to predominant characteristics of Early Christian and Byzantine art. NOTE A/See §200.3
## ARTH 363 Aspects of Medieval Art and

 Architecture (3 credits) Selected subjects examined in relation to predominant characteristics of Medieval art. NOTE A/See §200.3
## ARTH 364 <br> Aspects of Fifteenth- and Sixteenth-Century European Art and Architecture

 (3 credits)Selected subjects examined in relation to predominant characteristics of fifteenth- and sixteenth-century European art.
NOTE A/See §200.3
ARTH 365 Aspects of Seventeenth- and Eighteenth-Century Western Art and Architecture (3 credits)
Selected subjects examined in relation to
predominant characteristics of seventeenthand eighteenth-century Western art. NOTE A/See §200.3

ARTH 366 Aspects of NineteenthCentury Western Art and Architecture (3 credits)
Selected subjects examined in relation to predominant characteristics of nineteenth-century Western art. NOTE A/See §200.3

ARTH 367 Aspects of Twentieth-Century Art and Architecture ( 3 credits)
Selected subjects examined in relation to predominant characteristics of twentieth-century art. NOTE A/See §200.3

ARTH 368 Aspects of Contemporary Art and Architecture (3 credits) Selected subjects examined in relation to predominant characteristics of contemporary art. NOTE A/See §200.3

ARTH 370 Aspects of Canadian Art (3 credits)
Selected subjects examined in relation to predominant characteristics of art in Canada. NOTE A/See §200.3

ARTH 371 Aspects of Canadian
Architecture (3 credits)
Selected subjects examined in relation to predominant characteristics of architecture in Canada. NOTE A/See §200.3

## ARTH 372 Issues in Contemporary Canadian Architecture (3 credits)

A consideration of specific questions relevant to the current status and practice of architecture in Canada.

## ARTH 373 Issues in Contemporary <br> Canadian Art (3 credits)

A consideration of specific questions pertinent to contemporary art in Canada.
NOTE A/See §200.3
ARTH 374 Architecture and Urbanism in Montréal (3 credits)
The relationship of architecture to issues of urbanism, analysed through examples from Montréal's past and/or present.

## ARTH 375 Issues in the Montréal Art <br> Milieu (3 credits)

An analysis of specific artistic phenomena or events in Montréal.

ARTH 376 Topics in Amerindian and Inuit Art (3 credits)
A detailed examination of aspects of the art of the indigenous peoples of Canada.

ARTH 379 Post-Colonial Theory in Art History (3 credits)
A critical examination of the impact of colonial-
ism upon art and art history, and of the key concepts of post-colonial art and theory.
NOTE: It is strongly recommended that students take at least six credits in Art History courses before enrolling in this course.

ARTH 380 Historiography and Art History (3 credits)
The history of art history as a discipline and the concepts of history it uses.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

## ARTH $381 \quad$ Feminism and Art History

 (3 credits)A consideration of the effects of feminism on art history since the late 1960's.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH $383 \quad$ Art and Philosophy (3 credits)
A consideration of the impact of Western philosophy on art theory and practice.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

## ARTH 384 Theories of Representation (3 credits)

An examination of the different concepts of representation involved in the process of creating an art object, taking into account the relationships among image, referent, artist and audience.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

## ARTH 385

Colour: Theory and
Application in the Visual Arts (3 credits)
An examination of various theories of colour as posited by artists, philosophers, psychologists, and scientists. The relationship of such theories to the visual arts constitute an essential concern of the course.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

## ARTH 386 The Art Object and the <br> Viewer (3 credits)

A consideration of such questions as how a work of art addresses the viewer, what types of viewer (generic or individual) it postulates, and what theories of perception (spatial, kinaesthetic, or psychological) are involved in explaining the process of experiencing an art object.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

## ARTH 387 Seminar in Art and Criticism

 (3 credits)Prerequisite: Twelve credits in Art History, or written permission of the Department of Art

History. An examination of selected aspects of the relationship between art and criticism.

## NOTE A/See §200.3

ARTH $388 \quad$ Narration and Art (3 credits)
A critical examination of given aspects of the relationship between an image and its external references. NOTE A/See §200.3
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 389 Issues in Ethnocultural Art Histories ( 3 credits)
Analyses of the conceptualization of ethnic and cultural identity in art and art history.

ARTH $390 \quad$ Art Institutions (3 credits)
A study of selected institutions of art from a historical perspective. Consideration is given to the interrelationship of the institution and the milieu in which art is defined, made, exhibited, or purchased.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

## ARTH 391 Art and its Changing

 Contexts (3 credits)An investigation of the factors which define the initial context of a work of art and of those which modify or eclipse an original context. NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

## ARTH 392 Gender Issues in Art and Art <br> History (3 credits)

An examination of gender as a factor in making and interpreting art.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 393 Art and Replication (3 credits) An examination of various methods of replicating art (drawing, painting, printing, casting, photographing) and their relation to the original. Special consideration is given to the effects of the "copy" on art education, aesthetics, technique, patronage, and the market.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

## ARTH 394 Intensive Study in Art <br> History I ( 1.5 credits)

Prerequisite: Written permission of the Department of Art History. An intensive course of study designed to take advantage of the presence of a visiting scholar or the occurrence of a special event.

ARTH $395 \begin{gathered}\text { Intensive Study in Art } \\ \text { History II (1.5 credits) }\end{gathered}$
Prerequisite: Written permission of the Depart-
ment of Art History. An intensive course of study designed to take advantage of the presence of a visiting scholar or the occurrence of a special event. NOTE C/See §200.3

## ARTH 398

## Special Topics in Art and

 Society (3 credits)Prerequisite: Twelve credits in Art History, or written permission of the Department of Art History. A course designed to permit a detailed examination of some aspects of art in society. NOTE C/See §200.3

## ARTH $400 \quad$ Advanced Seminar in Art

 Historical Method (3 credits) Prerequisite: Third-year* standing in the Major in Art History. A seminar designed to permit an indepth examination of some aspects of methodology relevant to art history.NOTE A/See §200.3
*fewer than 33 credits remaining in degree program.

## ARTH 401 Independent Studies in Art

 History (3 credits) Prerequisite: Third-year* standing in the Major in Art History, and written permission of the Department of Art History. Students are required to prepare a research paper under the supervision of a faculty member. NOTE A/See §200.3 *fewer than 33 credits remaining in degree program.
## ARTH 433 Materials and Methods in Three-Dimensional Art ( 6 credits)

Through a series of lectures, practical demonstrations, and special projects in three-dimensional art, this course familiarizes the student with selected historical and contemporary principles, processes, and materials of concern to the artist. NOTE A/See §200.3
NOTE: Credits for this course may not be applied towards fulfilling art history requirements in the programs in Art Education, Ceramics, Design Art, Fibres, Painting and Drawing, Photography, Print Media, Sculpture, Studio Art. NOTE: Students who have received credit for ARTH 268 may not take this course for credit.

## ARTH 434 Materials and Methods in Drawing and Painting

 ( 6 credits)Prerequisite: Enrolment in the Major/Minor in Art History or the Major in Art History and Studio Art, or written permission of the Department of Art History. Through a series of lectures, practical demonstrations, and special projects in the media of drawing and painting, this course familiarizes the student with some of the historical materials, techniques, and other aspects of the artist's concern.
NOTE: Credits for this course may not be applied towards fulfilling art history requirements in the programs in Art Education, Ceramics, Design Art, Fibres, Painting and Drawing,

Photography, Print Media, Sculpture, Studio Art. NOTE: Students who have received credit for ARTH 267 or ARTH 234 or ART 420 may not take this course for credit.

ARTH 448 (also listed as FMST 448) Advanced Seminar in Art and Film (3 credits)
Prerequisite: Second-year standing* in the Major in Art History and Film Studies or written permission of the program coordinator. A seminar designed to permit an in-depth course of study on some aspects of art and film history.
NOTE A/See §200.3
*66 or fewer credits remaining in degree program.

## ARTH 498 Special Topics in the History of Art and Architecture

 (3 credits)Prerequisite: Eighteen credits in Art History, or written permission of the Department of Art History. A course for advanced students which provides for the study of more specialized areas of art. NOTE A/See §200.3

# 8160 MEL HOPPENHEIM SCHOOL OF CINEMA 

\begin{tabular}{|c|c|c|c|c|}
\hline Faculty \& \begin{tabular}{l}
Chair \\
CATH \\
Profe \\
MAR \\
JOHN \\
THO \\
CAR \\
Asso \\
STEF \\
CHR \\
RICH \\
LOUI
\end{tabular} \& \begin{tabular}{l}
ERINE MACKENZIE, Associate Professor \\
sors \\
FALSETTO \\
LOCKE \\
AS WAUGH \\
E ZUCKER \\
ate Professors \\
N ANASTASIU \\
TOPHER HINTON \\
RD KERR \\
E LAMARRE
\end{tabular} \& \begin{tabular}{l}
MAR \\
MAR \\
MAR \\
PET \\
CAT \\
Assis \\
JEAN \\
ROY \\
GUIL \\
FARZ \\
ROS \\
CILIA
\end{tabular} \& \begin{tabular}{l}
IN LEFEBVRE \\
ORIE MORTON \\
ELE NITOSLAWSKA \\
RIST \\
ERINE RUSSELL \\
ant Professors CLAUDE BUSTROS CROSS \\
INE DIONNE \\
N FARZANEH \\
NNA MAULE \\
SAWADOGO
\end{tabular} \\
\hline Location \& \multicolumn{4}{|l|}{Sir George Williams Campus Faubourg Tower, Room: FB 319 (514) 848-4666} \\
\hline \begin{tabular}{l}
Department \\
Objectives
\end{tabular} \& \multicolumn{4}{|l|}{Education in Cinema is the mission of the School. This implies an ongoing effort to maintain the highest standards for the curriculum, faculty, staff, facilities, and services on the undergraduate and graduate levels. It also implies that there must be an effort to create an optimal learning environment for students who not only attend lectures but also make films and study completed films as central components of their education at Concordia. Recognizing the complexity of the assignments given to students, faculty and staff expertise and accessibility become crucial. Conjointly, the continuing faculty research, which both enriches the education of the students and contributes to the field of cinema, has to be given a place of importance. Successfully balancing the desire to provide individual and small group instruction to a large number of highly motivated students with the need to provide the time required for faculty research is a priority for the School. All aspects of the School's mission are to be carried out with respect for humanistic values, justice, and human rights.} \\
\hline \multirow[t]{6}{*}{Programs} \& \multicolumn{4}{|l|}{\begin{tabular}{l}
Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with §81.20. \\
The superscript indicates credit value.
\end{tabular}} \\
\hline \& 66 \& BFA Specialization in Film Production NOTE: It is strongly recommended that students in the Specialization in Film Production have, or acquire, a knowledge of French. \& 6
6
3 \& \begin{tabular}{l}
Chosen from FMST \(214^{3}, 215^{3}, 418^{3}\), \(419^{3 * * *}\) \\
FMPR \(231^{6}\) or Cinema electives**** approved by the head of Film Studies FMST \(450^{3}\)
\end{tabular} \\
\hline \& \& \begin{tabular}{l}
FMST \(211^{6}, 212^{6}\) \\
FMPR \(231^{6} \quad 332^{6} 432^{6}\)
\end{tabular} \& 21 \& Film Studies electives** (excluding FMST 200); FMPR \(341^{3}, 441^{3}\) \\
\hline \& 12
9 \& \begin{tabular}{l}
FMPR \(336^{3}, 338^{3}, 339^{3}, 340^{3}\) \\
Chosen from FMPR \(335^{3}, 341^{3}, 343^{3}\), \\
\(350^{3}, 398^{3}, 435^{3}, 438^{3}, 439^{3}, 440^{3}, 441^{3}\),
\end{tabular} \& 6
54 \& Film Studies seminar credits chosen in consultation with an adviser \\
\hline \& 9
6 \& \begin{tabular}{l}
\(442^{3}, 450^{3}, 498^{3}\) \\
Film Studies electives** (excluding FMST 200) \\
Cinema electives****** or credits outside of Cinema selected in consultation with the head of Film Production
\end{tabular} \& 54
\(* 12\)
*
21
6

15 \& | BFA Major in Film Production |
| :--- |
| FMST $211^{6}, 212^{6}$ |
| FMPR $231^{1^{\prime}}, 332^{6}, 338^{3}, 339^{3}, 340^{3}$ |
| Film Studies elective(s) ${ }^{* *}$ (excluding |
| FMST 200) |
| Cinema electives ${ }^{* * * * * * ~}$ | <br>

\hline \& 66
*24 \& BFA Specialization in Film Studies NOTE: It is strongly recommended that students in the Specialization in Film Studies have, or acquire, a knowledge of French. FMST $211^{6}, 212^{6}, 321^{6}, 322^{6}$ \& 57
18
9
6
6

15 \& | BFA Major in Film Animation |
| :--- |
| FMAN $202^{6}, 224^{6}, 254^{6}$ |
| FMST $212^{6}, 323^{3}$ |
| FMAN $305^{6}$ |
| FMAN $315^{3}, 319^{3}$ |
| FMAN $402^{9}$ and six credits in Cinema electives; or FMAN $354^{6}, 403^{9}$ | <br>

\hline
\end{tabular}

3 Cinema electives****
NOTE: FMAN 402 and 403 may not be taken as Cinema electives.

48 BFA Major in Film Studies
*24 FMST $211^{6}, 212^{6}, 321^{6}, 322^{6}$
18 Film Studies electives** (excluding FMST 200)
6 Cinema electives******
60 BFA Major in Art History and Film Studies
6 FMST $212^{6}$
6 Chosen from FMST $311^{3}, 312^{3}, 318^{3}$, $321^{6}, 325^{3}, 332^{3}$; VDEO $350^{6}$
6 Chosen from FMST $211^{6}, 322^{6}$
3 Chosen from FMST $214^{3}, 215^{3}, 217^{3}$, $418^{3}, 419^{3}$
3 Chosen from FMST $327^{3}, 329^{3}, 416^{3}$, $422^{3}, 423^{3}, 424^{3}, 425^{3}$
3 Film Studies electives
6 ARTH $200^{6}$ to be taken as first six credits in studies in Art History
3 Chosen from ARTH $353^{3}, 354^{3}$
3 Chosen from ARTH $366^{3}, 367^{3}, 368^{3}$
3 Chosen from ARTH $370^{3}, 371^{3}, 372^{3}$, $373^{3}, 374^{3}, 375^{3}, 376^{3}$
3 Chosen from ARTH $379^{3}, 381^{3}, 388^{3}$, $400^{3}$
3 Chosen from ARTH $383^{3}, 384^{3}, 385^{3}$, $386^{3}, 387^{3}, 389^{3}, 391^{3}, 392^{3}$
6 Art History electives
3 FMST $348^{3} /$ ARTH $348^{3}$
3 FMST $448^{3} /$ ARTH $448^{3}$
This is a program for students who want to examine art and film from a variety of social, cultural, political, and critical perspectives.

## 30 Minor in Cinema

12 FMST $211^{6}, 212^{6}$
18 Film Studies electives** (With the written permission of the School, introductorylevel Film Animation or Film Production courses, selected in consultation with the School, may be substituted.)
This is a very limited enrolment program for students who want to have some access to Film Production and Film Animation courses.

30 Minor in Film Animation
12 FMAN $202^{6}, 305^{6}$
FMAN $254^{6}$
9 FMST $212^{6}, 323^{3}$
3 Cinema electives

## 24 Minor in Film Studies

12 Chosen from FMST $200^{6}, 211^{6}, 212^{6}$
12 Film Studies electives**
This Minor is primarily intended for students outside the Faculty of Fine Arts. Students in Communication Studies Department degree programs must have written permission of their Department to enter this program.

## NOTES:

*FMST 211 and 212 should be taken as part of the first 30 credits.
${ }^{* *}$ In the Major and Specialization in Film Production, and the Major and Specialization in Film Studies, up to 12 credits chosen from the following courses in the Faculty of Arts and Science may be applied as Film Studies or Cinema electives for degree purposes: Communication Studies listed in §81.60.3; Français 373, 374. In the Minor in Cinema and the Minor in Film Studies, up to six credits chosen from the following courses in the Faculty of Arts and Science may be applied as Film Studies elective(s) for degree purposes: Communication Studies listed in §81.60.3; Français 373, 374.
***Communication Studies 303 may be substituted for three credits in Film Studies and must be considered as Film Studies credits for degree purposes.
${ }^{* * *}$ In the Specialization in Film Production, the Specialization in Film Studies, and all Cinema Major programs, the following courses may be applied as Cinema electives for degree purposes: VDEO 300, VDEO 350.

Minor in Interdisciplinary Studies in Sexuality
See §81.60.4
81.60 .1

Admission to Cinema
Programs

The Mel Hoppenheim School of Cinema has distinct admission procedures in addition to the normal admission process of Concordia University. While all applicants are required to submit a portfolio and a letter of intent, an interview may also be required.
In order to allow themselves sufficient preparatory time, all applicants are strongly urged to contact the School of Cinema or its Web site at http://cinema.concordia.ca to obtain important information regarding portfolio submissions and deadline dates. An Admissions Evaluation Form will be completed by the applicant at the time of submission of the portfolio. A completed Admissions Evaluation Form must accompany every application. Applicants who do not expect to bring their dossiers in personally must contact the School to request a copy of the Admissions Evaluation Form, or download it from the Web. NOTE: The Specialization in Film Production is offered at the third-year level. Upon attainment of third-year standing (33 or fewer credits remaining to be completed in the program), students in the Major in Film Production may apply for transfer to the Specialization in Film Production.

## Film Studies:

NOTE: Courses may occasionally be offered in French.

## FMST 200 Introduction to Film Studies

 ( 6 credits)A survey acquainting the student with the art of the film. The technical and critical terminology of film studies is discussed. Popular literature on film, such as reviews, is analysed and the more specialized film literature is introduced. Directors whose films are usually viewed include Bergman, Eisenstein, Fellini, Ford, Hitchcock, Kurosawa, Lubitsch, Keaton, and Welles. Weekly screenings. NOTE A/See §200.3

## FMST 211* History of Film to 1959 (6 credits)

The evolution of the forms and themes of world cinema from its origin to 1959, in relation to its cultural, social, and political contexts. Special emphasis is placed on film historical methodology, focusing on approaches based on genre, auteur, national cinemas, social history, particular cinematic modes, or other frameworks. Weekly screenings. NOTE A/See §200.3
*Students in Cinema programs who require FMST 211 should complete the course as part of their first 30 credits.

## FMST 211* L'histoire du cinéma jusqu'à 1959 ( 6 crédits)

Ce cours couvre l'évolution des formes et des thématiques cinématographiques depuis leur début jusqu'à 1959 et les place dans leur contexte culturel, social et politique. L'accent est mis principalement sur la méthodologie de l'histoire du cinéma tout en privilégiant plusieurs angles d'approche: genre, cinéma d'auteur, cinéma national, histoire sociale, forme cinématographique particulière ou d'autres grilles. Visionnements hebdomadaires.
NOTE A/Voir §200.3
*Si ce cours figure au programme d'une personne inscrite en Cinéma, il devrait faire partie des 30 premiers crédits.

FMST 212* Film Aesthetics ( 6 credits) A study of the aesthetics of film. Topics include film criticism, theories about the fundamental elements of film, and comparisons between films which do not depend on their date of production. Problems of film description, interpretation, and evaluation are discussed. Weekly screenings. NOTE A/See §200.3
*Students in Cinema programs who require FMST 212 should complete the course as part of their first 30 credits.

## FMST 214 English-Canadian Film

 (3 credits)A survey of English-Canadian film from the earliest surviving works to the present. Topics include fictional, documentary, animated, and experimental film, and the role of the National Film Board is discussed. Weekly screenings. NOTE A/See §200.3

## FMST 215 Le cinéma québécois (3 crédits)

Tour d'horizon du cinéma québécois mettant l'accent sur des œuvres contemporaines. Les films sont examinés en fonction de leur valeur culturelle et politique. On y traite également de la structure de l'industrie du cinéma au Québec et du rôle joué, entre autres, par l'Office national du film. Visionnements hebdomadaires.
NOTE A/Voir §200.3
NOTE: Ce cours peut, à l'occasion, être offert en anglais. / Course may occasionally be taught in English.

## FMST 217 First Nations and Film

(3 credits)
A survey of representation by and of aboriginal peoples in film and video. The emphasis is on the Americas, but important works from other continents are included. Films and videotapes, both mainstream and experimental, are discussed in the context of contemporary aesthetic issues, socio-cultural history, and post-colonial theory. Weekly screenings.
NOTE: Students who have received credit for FMST 398H may not take this course for credit.

FMST 311 Montage Aesthetic (3 credits) Prerequisite: FMST 212. An intensive study of montage as an element of film style. Beginning with the work of D.W. Griffith, developments in film editing are followed through French Avant-Garde and Russian films of the 1920s to contemporary film. Weekly screenings.

## FMST 312 Moving Camera Aesthetic

 (3 credits)Prerequisite: FMST 212. An intensive study of camera movement as an element of film style. Consideration is given to relations between long takes, deep-focus cinematography, and camera movement, as well as to the role of camera movement in creating the signification of film. Films by Murnau, Renoir, Welles, Ophuls, and Snow are included among those viewed and discussed. Weekly screenings.

FMST 313 Film Comedy I (3 credits) Prerequisite: Second-year standing. ${ }^{*}$ An introduction to film comedy in the silent and sound eras. The visual and verbal sources of comedy are analysed through the study of films ranging from Mack Sennett and Buster Keaton to Woody Allen and Jacques Tati. Weekly screenings. *66 or fewer credits remaining in degree program.

## FMST 315 Topics in Film Theory

 (3 credits) Prerequisite: Second-year standing.* This course closely examines a variety of theoretical writings concerned with aesthetic, social, and psychological aspects of the cinema. Students study the writing of classical theorists such as Eisenstein, Bazin, Balázs, and Kracauer, and/or contemporary thinkers such as Metz, Mulvey, Bordwell, and Jameson. Questions addressed inthe course may include the nature of cinematic representation, film language, the relationship of film to other forms of cultural expression, and to racial and gender identity. The specific topics vary from year to year according to the specialization of the instructor. Screenings of films and film clips are included in the course.
NOTE: Students who have received credit for this topic under an FMST 398 number may not take this course for credit.
${ }^{*} 66$ or fewer credits remaining in degree program.
FMST 318 Experimental Film (3 credits) Prerequisite: Second-year standing. ${ }^{*}$ An examination of experimental film emphasizing developments from the late forties to the present. The New American Cinema is considered in relation to other North American and European experimental cinemas, and examples of the historical antecedents of recent experimental films are viewed and discussed. Weekly screenings.
*66 or fewer credits remaining in degree program.

## FMST 321 Studies in Film Directors

 (6 credits)Prerequisite: FMST 211 or second-year standing*. A concentrated study of the work of several major directors, principally narrative, from different periods in film history. Each director's work is examined in detail with representative films from distinct periods. The films are considered in terms of thematic and stylistic consistency and variation as well as biographical, social, and political factors. Weekly screenings.
NOTE A/See §200.3
*66 or fewer credits remaining in degree program.

## FMST 322 History of Film since 1959

 (6 credits)Prerequisite: FMST 211 or second-year standing*. A cross-cultural historical examination of selected aspects of world cinema since 1959, including trends in documentary and experimental film. The principal focus on European and American cinema is contextualized through reference to Canadian, Japanese, and Third World film. A range of perspectives is introduced, including genre and auteur study, formal analysis, and feminist analysis. Films are studied in their political and cultural contexts. Weekly screenings.
NOTE A/See §200.3
*66 or fewer credits remaining in degree program.

## FMST 323 History of Animated Film

 (3 credits)Prerequisite: Enrolment in the Major in Film Animation or the Minor in Film Animation, or second-year standing*. A survey of animated film from the first decade of the twentieth century to the present. Styles of animation ranging from abstract experimental film of the 1920s, to the Disney Studio, to computer animation are viewed and discussed. The contribution of the National Film Board of Canada and particularly
that of Norman McLaren is considered. Weekly screenings.
NOTE A/See §200.3
*66 or fewer credits remaining in degree program.
FMST 325 Film Acting (3 credits)
Prerequisite: Second-year standing.* A study of film acting centred on examining performances and individual scenes from films. Among the issues studied are the creation of star personas, casting against type, the influence of the script in the performance, the use of improvisation, the gesture system in silent film acting, ensemble acting, stylization, and exaggeration. Weekly screenings. NOTE A/See §200.3
*66 or fewer credits remaining in degree program.
FMST 327 Third World Film (3 credits) Prerequisite: Second-year standing.* A survey of Third World films seen in relation to their cultural, political, and aesthetic environment. Films are selected from areas such as Latin America, the Caribbean, Africa, the Middle East, South and East Asia. Weekly screenings.
*66 or fewer credits remaining in degree program.
FMST 328 Non-fiction Film Since 1956 (3 credits)
Prerequisite: Second-year standing*. A crosscultural survey of contemporary developments in the documentary film. The course begins with the precursors of cinéma-direct in North America and Europe during the fifties, and extends through the most recent applications of cinéma-direct in the emerging cinemas of the Third World. Emphasis is placed on both the artistic achievement and the theoretical, cultural, and political context of the non-fiction film during this period of technological and aesthetic transition. Weekly screenings. *66 or fewer credits remaining in degree program.

FMST 329 Women and Film (3 credits) Prerequisite: FMST 211 or second-year standing*. An examination of films made by women, film criticism written by women, and the portrayal of women in films. These topics are considered within the context of film history and with an emphasis on their relation to ideas in contemporary feminist theory. Weekly screenings. NOTE A/See §200.3 *66 or fewer credits remaining in degree program.

## FMST 332 Issues in Independent Cinema

 (3 credits)Prerequisite: FMST 211 or second-year standing*. An intensive study of selected tendencies in cinema produced outside the mainstream of the film industry. Topics may include documentary, video art, experimental or narrative film, or particular convergences of these modes of film practice. Topics will vary according to the instructor's specialization. NOTE A/See §200.3 *66 or fewer credits remaining in degree program. NOTE: Students who have received credit for FMST 331 may not take this course for credit without permission from the School.

## FMST 335

Aspects of National Cinemas (3 credits)
Prerequisite: Second-year standing. * An examination of films as reflections of national cultures. Films by a range of directors representing one or several national groupings such as Japan, Brazil, Eastern Europe, Great Britain, or contemporary West Germany are discussed in the context of their aesthetic, cultural, and political aspirations. Weekly screenings.
NOTE A/See §200.3
*66 or fewer credits remaining in degree program.

## FMST 337 Topics in American Cinema

 (3 credits)Prerequisite: Second-year standing. ${ }^{*}$ A lecture or seminar course which provides an opportunity for the study of limited and more specialized aspects of U.S. cinema. Topics may include individual genres, directors, production studios, historical periods, or aspects of independent cinema. Topics vary from year to year according to the instructor's field of specialization. *66 or fewer credits remaining in degree program.

## FMST 348 (also listed as ARTH 348)

 Special Topics in Art and Film (3 credits)A comparative examination of some aspects of film studies and art history. NOTE C/See §200.3

## FMST 350 Studies in Film Genres

 (3 credits)Prerequisite: Second-year standing*; FMST 211 or 322. An intensive analysis of one or two film genres, which assumes previous experience in film-genre studies. The genre is discussed in terms of its structural characteristics and the ways in which it is a product of specific social situations. Weekly screenings.
*66 or fewer credits remaining in degree program.

## FMST 391 Sexual Representation in

 Cinema (3 credits)Prerequisite: Second-year standing* or six credits in the Minor in Interdisciplinary Studies in Sexuality. An investigation of cinematic sexual imagery as art, communication and socio-cultural phenomenon. Weekly screenings of films and videos, representing fiction, experimental and documentary genres, as well as different historical and cultural contexts, are related to theoretical readings, both classical and contemporary, by authors from Freud and the Surrealists to Foucault and recent feminist and queer theorists. Contemporary issues such as pornography, autobiography, and the HIV epidemic are confronted. Learning is interdisciplinary, interactive and group-oriented.
*66 or fewer credits remaining in degree program.
NOTE: Students who have received credit for this topic under an FMST 498 number may not take this course for credit.

FMST 392 Representation and Sexuality: Queer Cinema I (3 credits)
An interdisciplinary, cross-cultural survey of
queer cinema and video. Selected phases in the historical trajectory of lesbian and gay film are highlighted, both underground and mainstream, including studies of representative major artists from Jean Cocteau and Dorothy Arzner to Patricia Rozema and Derek Jarman. Problems in the depiction of sexual minorities are analysed, and a selection of the principal aesthetic, theoretical and socio-political issues raised by queer theory and cultural production is introduced. NOTE A/See §200.3

FMST 393 Representation and Sexuality: Queer Cinema II (3 credits)
Prerequisite: FMST 392. An extension of
FMST 392. An in-depth focus on selected historical, aesthetic, and theoretical issues, which vary from year to year according to the expertise of faculty. NOTE A/See $\$ 200.3$

## FMST 398 Special Topics in Film Studies (3 credits)

Prerequisite: Written permission of the School of Cinema. A course which provides an opportunity for the study of limited and more specialized aspects of film studies. NOTE C/See §200.3

FMST 399 Special Topics in Film Studies ( 6 credits)
Prerequisite: Written permission of the School of Cinema. A course which provides an opportunity for the study of specialized aspects of film studies outside the scope of existing courses. NOTE C/See §200.3

FMST 409 Seminar in Women and Film (3 credits)
Prerequisite: Written permission of the School of Cinema. An advanced course in the study of films made by women, as well as of the representation of women in films. The topics selected for study may vary from year to year and are considered within the context of film history, contemporary feminist philosophy, and feminist film theory. Students are expected to conduct independent research for class presentation.
NOTE A/See §200.3

## FMST 414 Seminar in Film Directors

 (3 credits)Prerequisite: Eighteen credits in Film Studies and written permission of the School of Cinema. A seminar for advanced students which provides for more concentrated study of the work of specific film directors. The director or directors whose films are chosen for study varies from year to year according to the instructor's field of specialization. NOTE C/See §200.3

FMST 416 Seminar in Film History (3 credits)
Prerequisite: Eighteen credits in Film Studies and written permission of the School of Cinema. A seminar for advanced students which provides for the study of limited and more specialized areas of film history. The areas chosen for
study vary from year to year according to the instructor's field of specialization.
NOTE C/See §200.3

## FMST 418 Seminar in English-Canadian Film (3 credits)

Prerequisite: FMST 214 or COMS 316, and written permission of the School of Cinema. A seminar in which selected aspects of EnglishCanadian film are examined and discussed. The areas chosen for study vary from year to year according to the instructor's field of specialization.

## FMST 419 Séminaire sur le cinéma

 québécois (3 crédits)Préalable: FMST 215 ou COMS 316, ainsi que permission écrite de l'École de cinéma. Un séminaire dans lequel des aspects sélectifs du cinéma québécois sont analysés et discutés. Les sujets d'étude choisis varient d'année en année selon la spécialisation de l'instructeur.

## FMST 421 Seminar in Film Script Analysis (3 credits)

Prerequisite: Written permission of the School of Cinema. A study of the film script both as a basis for the construction of a film and as literature in its own right. Film scripts serving as illustrations of a variety of issues are used. Among these are point-of-view, voice-over, adaptation from novel and theatre to film, character development, multistory narratives, and uses of dialogue. Several scripts by the same screenwriter are examined, as well as different drafts of the same script. The course requirement includes an oral presentation to be given in conjunction with one or more students in the class.
NOTE: Students who have received credit for FMST 324 may not take this course for credit.

## FMST 422 Seminar in Film Theory and Criticism (3 credits)

Prerequisite: FMST 212 and written permission of the School of Cinema. Theories including those of Sergei Eisenstein and André Bazin are studied both as explanations of the effects of films and as foundations for film criticism. The relation of contemporary theoretical writings, such as those in film semiology, to film criticism is discussed. Weekly screenings.

## FMST 423 Seminar in Comparative Stylistic and Formal Analysis (3 credits)

Prerequisite: Written permission of the School of Cinema. An intensive course in the analysis of film style. Films are examined using an analytical projector in order to discover their formal and thematic structures. The contribution of cinematographers, editors, scriptwriters, directors, and performers to the development of a style are discussed. Weekly screenings.

FMST 424 Seminar in Film Narrative (3 credits)
Prerequisite: Written permission of the School of

Cinema. An examination of conventions of film narrative from a theoretical and historical point of view. Innovations in narrative structure are discussed and consideration is given to the origin, development, and transformation of narrative traditions in their cultural and aesthetic context.

FMST 425 Seminar in Contemporary Film Theory (3 credits)
Prerequisite: Written permission of the School of Cinema. A survey and analysis of major recent theoretical approaches to film. Among the topics discussed are auteurism, semiotics, textual analysis, ideological criticism, psychoanalysis, feminism, and neo-formalism. The seminar includes screenings, discussions of weekly readings, and oral presentations by the students.

## NOTE A/See §200.3

## FMST 426 Professional Internship I

 (3 credits)Prerequisite: Second-year standing* in the Major in Film Studies or the Specialization in Film Studies; written permission of the School of Cinema. A Film Studies student who has been commissioned to work in such areas as film research, archival work, editing film publications, or writing film criticism, may seek permission to apply three credits towards the Film Studies degree program. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The School of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member. NOTE A/See §200.3
*66 or fewer credits remaining in degree program.

## FMST 427 Professional Internship II

 (3 credits)Prerequisite: Second-year standing* in the Major in Film Studies or the Specialization in Film Studies; written permission of the School of Cinema. A student repeating FMST 426 registers for credit under FMST 427. NOTE A/See §200.3 *66 or fewer credits remaining in degree program.

FMST 428 Independent Study I (3 credits) Prerequisite: Written permission of the School of Cinema. A course of independent study in which the student may explore a specific area of film studies.

## FMST 429 Independent Studies II

 (3 credits)Prerequisite: Written permission of the School of Cinema. A student repeating FMST 428 registers for credit under FMST 429 provided the subject matter is different.

## FMST 448 (also listed as ARTH 448) Advanced Seminar in Art and Film (3 credits) <br> Prerequisite: Second-year standing* in the Major in Art History and Film Studies or written

permission of the program coordinator. A seminar designed to permit an in-depth course of study on some aspects of art and film history. NOTE A/See §200.3
*66 or fewer credits remaining in degree program.

FMST 450 Film Studies Specialization Seminar (3 credits)
Prerequisite: Second-year standing* in the Specialization in Film Studies; written permission of the School of Cinema. This intensive seminar includes workshops in research methodology, in advanced study and career planning, and in the practice of criticism, publication, preservation, and programming. The relation of film studies to filmmaking practice, the role of changing technology, and the current cultural context of the discipline are discussed by visiting experts from both within the University and the community at large. The course brings together all students in the Specialization in Film Studies.
*66 or fewer credits remaining in degree program

## FMST 498 Special Topics in Film Studies

 (3 credits)Prerequisite: Written permission of the School of Cinema. A lecture or seminar course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film studies.
NOTE A,C/See §200.3

## Film Animation:

NOTE: A student may register for only one course in which films are produced as a course requirement during each academic session. See §81.60.2

FMAN 202 Animation I ( 6 credits)
Prerequisite: Enrolment in the Major in Film Animation or the Minor in Film Animation; or written permission of the School of Cinema, with either FMPR 231 or six credits in a Studio Art course. A studio course introducing the study and practice of film animation. Students will be taught the fundamentals of motion analysis and frame-by-frame filmmaking, basic character animation, camera layouts, exposure sheets and character design. NOTE A/See §200.3 NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

FMAN 224 Analytical Drawing ( 6 credits) Prerequisite: FMAN 202; enrolment in the Major in Film Animation. An intensive studio course exploring the concepts and methods of analytical drawing for frame-by-frame filmmakers.
NOTE: Students who have received credit for FMAN 324 may not take this course for credit.

Animation or the Minor in Film Animation. An introduction to 2D frame-by-frame techniques and technical aspects focusing on animation and graphic software.
NOTE: Students who have received credit for FMAN 214 may not take this course for credit.

## FMAN 305 Animation II (6 credits)

Prerequisite: Second-year standing* in the Major in Film Animation or the Minor in Film Animation; FMAN 202, 224, 254. A continuation on a more advanced level of FMAN 202. Students study filmplanning strategies and various frame-by-frame filmmaking techniques, both 2D digital and traditional, during the production of short animated films.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
NOTE: Students who have received credit for FMAN 302, 303, 304, or 313 may not take this course for credit.
*66 or fewer credits remaining in degree program.

## FMAN 315 From Idea to Storyboard

 (3 credits)Prerequisite: FMAN 305 previously or concurrently and written permission of the School of Cinema. Exploration of the visual development of ideas and scripts in a storyboard form. Students participate in creative and experimental exercises which include timing, planning the sound track, and filming the storyboards.

FMAN 319 Character Animation (3 credits)
Prerequisite: FMAN 202 previously or concurrently and written permission of the School of Cinema. An examination of the fundamentals of character animation, its theory, techniques, and application to studio situations. Exercises in character design and dramatization are directed towards the students' particular interests and style. NOTE A/See §200.3
NOTE: Previous drawing experience is recommended.

## FMAN 325 Advanced Analytical Drawing

(3 credits)
Prerequisite: FMAN 202, 224; written permission of the School of Cinema. A continuation on a more advanced level of FMAN 224.

## FMAN 336 Digital Post-Production for

 Animation (3 credits)Prerequisite: FMAN 305 previously or concurrently; written permission of the School of Cinema. An introduction to digital sound and image editing specifically designed for frame-by-frame filmmaking.

## FMAN 352 Traditional Stop-Motion

 Animation (3 credits) Prerequisite: Enrolment in the Major in Film Animation or the Minor in Film Animation; FMAN 202. An intensive hands-on seminar/workshop in the art and craft of animation. This course is designed to acquaint the student with photographic techniques, model, puppet, and set construction, materials, motion control, and lighting, as it applies to animation filmmaking. Recent developments and a study of international styles and techniques are included.
NOTE: Students who have received credit for FMAN 498H may not take this course for credit.

## FMAN 354 Digital Technical Aspects II (3D)

 ( 6 credits)Prerequisite: FMAN 254; enrolment in the Major in Film Animation or the Minor in Film Animation. An introduction to 3D animation graphic software, focusing on technical aspects.

## FMAN 398 Special Topics in Film Animation (3 credits)

Prerequisite: Written permission of the School of Cinema. An opportunity for study of limited and more specialized aspects of film animation.

## NOTE C/See §200.3

NOTE: Students are required to bear the cost of materials.

FMAN 402 Animation III (9 credits)
Prerequisite: Third-year standing* in the Major in Film Animation; FMST 212; FMAN 224 or 305; FMST 323. A continuation on a more advanced level of Animation II, where students work independently on a major film animation project in a medium of their choice.
NOTE A/See §200.3
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
NOTE: Students who have received credit for FMAN 403 may not take this course for credit. *33 or fewer credits remaining in degree program.

## FMAN 403 Animation III: Digital (3D) (9 credits)

Prerequisite: FMAN 305, 354; written permission of the School of Cinema. A continuation on a more advanced level of Animation II, focusing on 3D digital frame-by-frame filmmaking and exploring experimentation and special effects. Students work independently on a major digital 3D animation production.
NOTE: Students who have received credit for FMAN 402 may not take this course for credit.

## FMAN 446 Professional Internship I

 (3 credits)Prerequisite: Second-year standing* in the Major in Film Animation; written permission of the School of Cinema. A Film Animation student who will be employed within the film industry during the same calendar year may seek permission to apply three credits towards the Film Animation degree program. A written proposal describing the project must be submitted prior to the work taking place in order to determine the
appropriateness of the level and scope of the project. The School of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member. NOTE A/See §200.3. *66 or fewer credits remaining in degree program.

## FMAN 447 Professional Internship II

 (3 credits)Prerequisite: Second-year standing* in the Major in Film Animation; written permission of the School of Cinema. A student repeating FMAN 446 registers for credit under FMAN 447. NOTE A/See §200.3.
*66 or fewer credits remaining in degree program.

FMAN 448 Independent Study I (3 credits)
Prerequisite: Written permission of the School of Cinema. A course of independent study in which the student explores a specific area of film animation. NOTE A,C/See §200.3

FMAN 449 Independent Study II (3 credits) Prerequisite: Written permission of the School of Cinema. A student repeating FMAN 448 registers for credit under FMAN 449 provided the subject matter is different. NOTE A/See §200.3

## FMAN 498 Special Topics in Film

## Animation (3 credits)

Prerequisite: Written permission of the School of Cinema. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film animation. NOTE A,C/See §200.3

## Film Production:

NOTE: A student may register for only one course in which films are produced as a course requirement during each academic session. See §81.60.2.

FMPR 231 Filmmaking I ( 6 credits) Prerequisite: Enrolment in a Cinema program; FMST 211 or 212 previously or concurrently; written permission of the School of Cinema. A comprehensive course introducing students to the art of making films. This course stresses the individual student's creative efforts in filmmaking. Students are expected to master basic technique and theory. Students will also be using digital post-production systems to edit their works. The course requires attendance at mandatory workshops outside of class time. NOTE A/See §200.3 NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

FMPR 332 Filmmaking II ( 6 credits) Prerequisite: Second-year standing* in the Major in Film Production; FMPR 231; FMPR 338 and 340 concurrently; written permission of the School of Cinema. An intermediate course in the theory,
practice and technique of filmmaking. The course emphasizes idea development, creative process, methods of production, and production planning. Projects are made with a crew or individually, using film and/or digital technology, and digital post-production software. NOTE A/See §200.3
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
NOTE: Students who have received credit for FMPR 331 may not take this course for credit. *66 or fewer credits remaining in degree program.

## FMPR 335 Acting and Directing Acting for the Screen I (3 credits)

Prerequisite: Written permission of the School of Cinema; FMPR 332 previously or concurrently, or six credits in Theatre Performance. This studio course for Cinema and Theatre students explores directing and performing for film; exercises are recorded on video for analysis. Both performers and directors examine acting and directing acting for the camera through such topics as role preparation, character development, and performance continuity. NOTE A/See §200.3

FMPR 336 Creative Producing (3 credits) Prerequisite: FMPR 231 or written permission of the School of Cinema. A comprehensive course introducing students to the art of production methods. This implies exposure to the creative and technical aspects of the total production experience, and includes both independent and industry strategies and methods for fundraising, preparation of the project, production budgeting and scheduling techniques, legal and monetary involvement, and post-production, distribution, and exhibition strategies.
NOTE: Students who have received credit for FMPR 334 may not take this course for credit.

FMPR 338 Image I (3 credits)
Prerequisite: Enrolment in the Major in Film Production; FMPR 231; FMPR 332 and 340 previously or concurrently; written permission of the School of Cinema. This is a comprehensive course about the equipment and technologies available to the contemporary filmmaker. Traditional technical aspects of filmmaking remain fundamental in this course, while digital technologies are also explored. Students learn about different cameras, image formats, lenses, lighting and grip equipment, film stocks, electronic image support systems and laboratory procedures. Students must attend compulsory workshops in addition to classes.
NOTE: Students who have received credit for FMPR 342 may not take this course for credit.

FMPR 339 Montage I (3 credits)
Prerequisite: Enrolment in the Major in Film Production; FMPR 231; FMPR 332, 338 and 340 previously or concurrently; written permis-
sion of the School of Cinema. An introduction to methods, approaches and techniques of editing used by editors working in various genres of film - drama, documentary, experimental. Editing image, sound and preparation and supervision or re-recording are included. Analog and digital post-production platforms will be included. Attendance is required at mandatory laboratory sessions outside of class time.

## NOTE A/See §200.3

FMPR 340 Sound I (3 credits)
Prerequisite: Enrolment in the Major in Film Production; FMPR 231; FMPR 332 and 338 concurrently; written permission of the School of Cinema. An introductory course in the aesthetics of sound and music design, and the techniques of location and studio recording and post-production. Analog and digital platforms and technologies will be included. Weekly mandatory laboratory sessions.
NOTE: Students who have received credit for FMPR 242 may not take this course for credit.

FMPR 341 Writing for Film I (3 credits)
Prerequisite: FMPR 231 and written permission of the School of Cinema. An introduction to writing for film, with special emphasis on the relation of the script to filmmaking. Students are expected to submit work of their own for discussion, analysis, and possible production in filmmaking courses. Students will also use special computer software to write scripts.

## NOTE A/See §200.3

## FMPR 343 Production Design (3 credits)

 Prerequisite: Second-year standing* in Film Production, Film Animation, or Theatre Department programs and written permission of the School of Cinema. A practical examination of the visual aspects of film production. Topics in production design considered may include texture and visual styles, the collaborative process, project management, and the nature of constraints which apply to student and independent productions.NOTE A/See §200.3
*66 or fewer credits remaining in degree program.

## FMPR 350 Ways of Seeing in Film

Production (3 credits)
Prerequisite: Enrolment in the Major in Film Production or the Specialization in Film Production; written permission of the School of Cinema. A forum of ideas intended to increase the student's awareness of cinema as a visual medium. Aspects of our visual culture are presented and discussed: work by painters, photographers, sculptors, architects, and artists working with digital media. A relationship is made between the work of such artists and the work of the filmmaker. Students work on individual visual projects. NOTE A/See 200.3
NOTE: Students who have received credit for FMPR 498F may not take this course for credit.

## FMPR 361 Documentary Approaches in

 Film Production (3 credits)Prerequisite: Written permission of the School of Cinema. This course deals with aesthetic and conceptual issues surrounding the subject of documentary as a form. All issues in the production of a documentary film are treated, including budget, production, and post-production, and the changes brought by new technologies. This course will also analyse the shift in production away from film to digital technologies, in the field of the documentary.
NOTE: Students who have received credit for this topic under an FMPR 498 number may not take this course for credit.

## FMPR 398 Special Topics in Film

Production (3 credits)
Prerequisite: Written permission of the School of Cinema. A course which provides an opportunity for the study of specialized aspects of film production outside the scope of existing courses. NOTE C/See §200.3

## FMPR 399 Special Topics in Film Production (6 credits)

Prerequisite: Written permission of the School of Cinema. A course which provides an opportunity for the study of specialized aspects of film production outside the scope of existing courses. NOTE C/See §200.3

FMPR 432 Filmmaking III ( 6 credits)
Prerequisite: Third-year standing* in the Specialization in Film Production or the Major in Film Production; FMPR 332, 338, 340; written permission of the School of Cinema. A progression of FMPR 332, with students working on more advanced filmmaking projects. Students will edit projects using digital technologies. The development of concepts introduced in FMPR 332 is continued. NOTE A/See §200.3
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
NOTE: Students who have received credit for FMPR 431 may not take this course for credit. *33 or fewer credits remaining in degree program.

## FMPR 435 Acting and Directing Acting for

 the Screen II (3 credits)Prerequisite: FMPR 335 and written permission of the School of Cinema. A continuation of FMPR 335 on a more advanced level.

FMPR 438 Image II (3 credits)
Prerequisite: Enrolment in the Specialization in Film Production or the Major in Film Production; FMPR 332, 338, 340; FMPR 339 previously or concurrently; written permission of the School of Cinema. Building on the technical knowledge acquired in Image I, this course focuses on the art of cinematography. Advanced lighting and camera techniques are treated, emphasizing their aesthetic function. Students in this course
will have mastered basic technical concerns, and are expected to develop interesting visual approaches for films made in Filmmaking III. Exercises are shot on film, digital and 35 mm stills. Film excerpts and rushes are analysed from a cinematographer's point of view.

## FMPR 439 Montage II (3 credits)

Prerequisite: FMPR 339 and written permission of the School of Cinema. A continuation of FMPR 339. This course is taught utilizing digital post-production editing systems.

## FMPR 440 Sound II (3 credits)

Prerequisite: Enrolment in the Specialization in Film Production or the Major in Film Production; FMPR 338, 340; written permission of the School of Cinema. The central focus of the course is the creative designing of the soundtrack. The course emphasizes the interaction between sound and image in film and includes both individual and collective sound projects. This course is also taught on digital sound post-production platforms, and stresses the use of digital editing systems.

## FMPR 441 Writing for Film II (3 credits)

Prerequisite: FMPR 341 and written permission of the School of Cinema. A continuation of FMPR 341 on a more advanced level. Students will also use special computer software to write scripts.

## FMPR 442 Optical Printer Practice

 (3 credits)Prerequisite: FMPR 338 previously or concurrently, or FMAN 314; written permission of the School of Cinema. A film production course assisting students in the understanding and application of advanced optical printer technology and aesthetics. NOTE A/See §200.3

## FMPR 445 Professional Internship (6 credits)

Prerequisite: Second-year standing* in the Specialization in Film Production or the Major in Cinema, Option A, Film Production; and written permission of the School of Cinema. A Film Production student who will be employed within the film industry during the same calendar year may seek permission to apply six credits towards the Film Production degree program. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The School of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member. NOTE A/See 200.3
*66 or fewer credits remaining in degree program.

## FMPR 446 Professional Internship I

 (3 credits)Prerequisite: Enrolment in the Major in Cinema, Option A, Film Production or in the Specialization
in Film Production; and written permission of the School of Cinema. A Film Production student who will be employed within the film industry during the same calendar year may seek permission to apply three credits towards the Film Production degree program. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The School of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member. NOTE A/See §200.3

FMPR 447 Professional Internship II (3 credits)
Prerequisite: Written permission of the School of Cinema. A student repeating FMPR 446 for credit registers under FMPR 447.

## NOTE A/See §200.3

FMPR 448 Independent Study I(3 credits)
Prerequisite: Written permission of the School of Cinema. A course of independent study in which the student explores a specific area of film production. NOTE A,C/See §200.3

FMPR 449 Independent Study II (3 credits) Prerequisite: Written permission of the School of Cinema. A student repeating FMPR 448 registers for credit under FMPR 449 provided the subject matter is different.
NOTE A/See §200.3

## FMPR 450 Film Production Specialization Seminar (3 credits)

Prerequisite: Enrolment in the Specialization in Film Production and written permission of the School of Cinema. A seminar offering in-depth, practical approaches to artistic and technical situations. This course brings together all students in the Specialization in Film Production.

## FMPR 451 Advanced Project Internship I

 (3 credits)Prerequisite: Enrolment in the Specialization in Film Production or the Major in Film Production; FMPR 332 previously or concurrently; written permission of the School of Cinema. A Film Production student who contributes in a key position to a graduate project in the Film Production MFA program may apply for credits on the understanding that the application take place prior to the production and is authorized by the faculty members responsible for both programs.

## FMPR 452 Advanced Project Internship II

 (3 credits)Prerequisite: FMPR 451 and written permission of the School of Cinema. A student repeating FMPR 451 for credit registers under FMPR 452.

FMPR 458 Independent Study ( 6 credits)
Prerequisite: Written permission of the School of Cinema. A course of independent study in which the student explores a specific area of Film Production.

## FMPR 498 Special Topics in Film Production (3 credits)

Prerequisite: Written permission of the School of Cinema. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film production. NOTE A,C/See §200.3

## FMPR 499 Special Topics in Film <br> Production (6 credits)

Prerequisite: Written permission of the School of Cinema. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film production. NOTE A,C/See §200.3
81.60 .2

Filmmaking
81.60 .3

Communication
Studies Film Courses

Courses in which films are produced as a course requirement are:
FMAN $202^{6}, 305^{6}, 402^{9}, 403^{9}$
FMPR $231^{6}, 332^{6}, 432^{6}$

NOTE: For course descriptions see $\S 31.070$.
Students enrolled in the Film Studies or Film Production Major or Specialization programs may select up to 12 credits from the Communication Studies courses listed below. Students enrolled in the Minor in Cinema and the Minor in Film Studies may select up to six credits from the Communication Studies courses listed below.
The credits earned may be applied as Film Studies and/or Cinema electives for degree purposes.

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COMS 301 Selected Topics in National Cinemas (3 credits)
COMS 302 Selected Topics in Film Genres (3 credits)
COMS 303 Selected Topics in Canadian Cinemas (3 credits)
COMS 304 Selected Topics in Film Studies (3 credits)
COMS 306 Documentary Film (3 credits)
COMS 416 Film Criticism (3 credits)
COMS 417 Film Ideas (3 credits)
COMS 434 Advanced Topics in Film Studies (3 credits)
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|  | 81.60.4 INTERDISCIPLINARY STUDIES IN SEXUALITY |  |
| :---: | :---: | :---: |
| Interdisciplinary <br> Studies in Sexuality | Coordinator <br> THOMAS WAUGH, Professor, Mel Hoppenheim School of Cinema <br> Coordinating Committee <br> A. LUNT EVERGON, Assistant Professor, <br> Studio Arts <br> BRIAN FOSS, Associate Professor, Art History MARCIE FRANK, Associate Professor, English EDWARD LITTLE, Associate Professor, Theatre CATHERINE MAVRIKAKIS, Associate Professor, Études françaises | SHANNON MCSHEFFREY, Associate <br> Professor, History <br> CHANTAL NADEAU, Associate Professor, <br> Communication Studies <br> KAT O'BRIEN, Associate Professor, Design Art <br> JAMES G. PFAUS, Associate Professor, <br> Psychology <br> LILLIAN S. ROBINSON, Principal, Simone de Beauvoir Institute <br> FRANCES SHAVER, Associate Professor, Sociology and Anthropology |
| Program | Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20. <br> The superscript indicates credit value. <br> 27 Minor in Interdisciplinary Studies in Sexuality <br> 12 Chosen from FASS 391/INTE 391³, FASS 392/INTE 392 ${ }^{3}$; SOCI 375/ANTH 375 ${ }^{3 *}$; FMST $392^{3}$; INTE 390/FFAR $390^{6}$. <br> 9 Elective credits on sexuality and sexual orientation chosen in consultation with the program coordinator from periodic topics courses and other suitable courses identified in a given year, and from the following regular courses: <br> AHSC $253^{3}$; ENGL $445^{3}$; FMST $391^{3 *}$; RELI $380^{3}$; WSDB $383^{3}$. <br> 6 Chosen each year from courses in gender and women's studies in consultation with the program coordinator from a list of available offerings within departments of the Faculties of Fine Arts and Arts and Science. <br> *Prerequisites waived for students having completed six credits in the Minor in Interdisciplinary Studies in Sexuality. |  |
| 81.60 .5 <br> Admission to Minor in Interdisciplinary Studies in Sexuality | Applicants to the Minor in Interdisciplinary Studies in Sexuality are required to submit a letter of intent to Thomas Waugh, Coordinator. Letters should be mailed to: Thomas Waugh, School of Cinema, Concordia University, 1250 Guy, Room FB 319, Montréal, Québec H3H 2 T6. |  |
| Courses | FASS: <br> FASS 391 (also listed as INTE 391) Issues in Sexuality Research (3 credits) <br> An interdisciplinary survey of approaches to research in sexuality within the humanities, the arts, and the social sciences. Basic concepts of sexual identity, values, conduct, representation, and politics are addressed through such topical concerns as pornography and censorship, and through the perennial dialogue between biological and socio-cultural models of sexuality. The relation between theories and research methods is discussed in the context of classical and current | research and creative activity. The syllabus reflects the varying specializations of the instructors from year to year. <br> FASS 392 (also listed as INTE 392) Introduction to Queer Theory (3 credits) <br> An interdisciplinary survey of the basic post1970 theories of sexual minorities and diversity, in their historical and cultural contexts. Authors from Michel Foucault to Eve Kosofsky Sedgwick are introduced, as well as the work of artists and performers from Derek Jarman to k.d. lang. The syllabus reflects the varying specializations of the instructors from year to year. |

# 81.70 


81.70 .1

Admission to
Contemporary Dance

There is a distinct procedure for admission to the Major in Contemporary Dance in addition to the normal admission process of Concordia University. All applicants to Contemporary Dance are required to attend an audition as part of the admission process.
Applicants should preferably contact the Department of Contemporary Dance before March 1, 2003 to arrange their audition and for detailed information regarding admission to Dance.

DANC 200 Workshop in Dance I ( 6 credits)
Prerequisite: DANC 210, previously or concurrently, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. Studies of the creative process in dance, emphasizing movement exploration in relation to form and content. Various approaches to dance are introduced and personal and group research is developed. Consideration is given to visual, verbal, and acoustic elements in dance. Studio: four hours per week. Laboratory: two hours per week. NOTE A/See §200.3

DANC 210 Body Movement I ( 6 credits) Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. The technical development of suppleness, strength, coordination, and kinetic awareness is emphasized. Body movement is discussed and developed as preparation for dance. Studio: six hours per week.

DANC 211 Dance Traditions (3 credits) A survey of the history of dance, including relations between older dance traditions and styles of modern dance. Lecture course.

## DANC 230 Sound and Silence for the Dancer ( 6 credits)

Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. The basics of music theory through guided analytical text using singing, single line score reading and moving, including the study of rhythm, melody, harmony, tempi, dynamics, tone colour, and musical forms with emphasis on the fundamental understanding of rhythm, melody, and harmony physically and mentally.

## DANC 240* Principles of Contemporary

 Dance ( 6 credits)Prerequisite: Written permission of the Department of Contemporary Dance. A survey of techni-
cal skills, improvisation, and dance composition. Studio: four hours per week. Laboratory: two hours per week.
*Students enrolled in the Major in Contemporary Dance may not take this course for credit towards their degree program.

DANC 261 Summer Workshop in Dance I (3 credits)
Prerequisite: Written permission of the Department of Contemporary Dance. Sequences of studio sessions which may include body movement, improvisation, performance technique, and choreography. Studio: four hours per week. Laboratory: two hours per week.
NOTE: Students enrolled in the Major in Contemporary Dance may not take this course for credit towards their program requirements.

DANC 262 Summer Workshop in Dance II (3 credits)
Prerequisite: Written permission of the Department of Contemporary Dance. A continuation of DANC 261. Studio: four hours per week. Laboratory: two hours per week.
NOTE: Students enrolled in the Major in Contemporary Dance may not take this course for credit towards their program requirements.

DANC 300 Workshop in Dance II ( 6 credits)
Prerequisite: DANC 200, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A continuation of DANC 200. Studio: four hours per week. Laboratory: two hours per week.

DANC 310 Body Movement II ( 6 credits) Prerequisite: DANC 210 or DANC 330, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A continuation of DANC 210. Studio: six hours per week.

DANC 320 Choreography I ( 6 credits) Prerequisite: DANC 300, previously or concurrently, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. The organization of movement, space, and time into dance performances. The process of choreographic creation is followed through stages of originating the idea, developing the theme and structure, rehearsing, and performing. Students' works are performed. Studio: four hours per week. Practice laboratory: two hours per week. Rehearsal: four hours per week.

DANC 330 Principles of Anatomy and Body Movement ( 6 credits)
Prerequisite: DANC 210, and written permission of the Department of Contemporary Dance. A
workshop of movement fundamentals based on the practical understanding of anatomy and dance technique. Studio: six hours per week.

## DANC 398 Special Topics in Dance

 (3 credits)Prerequisite: Written permission of the Department of Contemporary Dance. Topics vary from year to year, taking into account the special aptitudes of instructors and students. Studio: six hours. NOTE C/See §200.3

## DANC 400 Workshop in Dance III ( 6 credits)

Prerequisite: DANC 300, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A workshop that provides opportunities for the extension of creative potential, improvement of performance abilities, and development of methodologies in research, using movement and other related art forms. Studio: four hours per week. Laboratory: two hours per week.

DANC 410 Body Movement III ( 6 credits) Prerequisite: DANC 310 or 330 previously and DANC 400, previously or concurrently, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A continuation of DANC 310. Studio: six hours per week.

DANC 420 Choreography II ( 6 credits) Prerequisite: DANC 320, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A continuation of DANC 320. Studio: four hours per week. Practice laboratory: two hours per week. Rehearsal: four hours per week.

DANC 441 Independent Study I (3 credits) Prerequisite: Written permission of the Department of Contemporary Dance. A course of independent study in which the student explores a specific area of contemporary dance. NOTE A/See §200.3

DANC 442 Independent Study II (3 credits)
Prerequisite: Written permission of the Department of Contemporary Dance. A student repeating DANC 441 registers for credit under DANC 442. NOTE A/See §200.3

DANC 499 Topics in Dance ( 6 credits) Prerequisite: Written permission of the Department of Contemporary Dance. Advanced choreography where movement shares equal emphasis with all other arts developed into multi-media theatre. Studio: four hours per week. Practice laboratory: two hours per week. Rehearsal: four hours per week.

DESIGN ART

| Faculty | Chair |
| :--- | :--- |
| P.K. LANGSHAW, Associate Professor | Assistant Professors |
| Professor |  |
| LYDIA SHARMAN |  |
| Associate Professors |  |
| MICHAEL LONGFORD |  |
| KAT O'BRIEN |  |


81.80 .1

Admission to the Major in Design Art

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Design Art.
All applicants must submit a portfolio as part of the admission process.

1. Portfolios should consist of a maximum of 20 examples of the applicant's own work.
2. Portfolios should consist of two-dimensional, three-dimensional, time-based fine art studio and applied design work in a wide range of media.
3. The portfolio should demonstrate the applicant's creative potential as a designer/artist. Included work should represent an ability in two- and three-dimensional projects in fine arts, applied design, and computer-assisted design. For example: painting, sculpture, graphic and product design, theatre design, studio and technical drawing, photography, video and digital media.
4. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
5. Each portfolio must contain a list of contents including all the above information.
6. Works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
7. Portfolios should be presented in a sturdy folder; works should be flat, unframed, and well-presented.
8. Out-of-town applicants may submit photographs, slides, videos and/or CD's of their work. In addition:
9. A letter of intent written in either English or French must be submitted to the Department office by the applicants when arranging an interview appointment. The letter must state the reason for applying to the Design Art program and the ways in which the applicant's education background, work experience, and general interests can act as a preparation for the Design Art program.
10. Applicants are required to submit a copy of their transcript with their portfolio.
11. Portfolios must be submitted to the Department office, VA 244, by March 8, 2003. Students may also be called to attend an interview.

## Courses

NOTE: Students are required to bear the cost of materials in Studio Art courses.

## DART 221 Primary Digital Graphics

 (3 credits)Prerequisite: Enrolment in the Major in Design Art or written permission of the Department of Design Art. This computer lab course combines hands-on workshops with content-driven projects. Students are introduced to the fundamentals of graphic composition and communication for digital graphic arts. Photoshop, Illustrator, and QuarkXPress will be introduced to explore image/text juxtaposition, layout, and typography. NOTE: Students who have received credit for DART 200 may not take this course for credit.

## DART 223 Concept Visualization

 (3 credits)Prerequisite: Enrolment in the Major in Design Art or written permission of the Department of Design Art. This studio course is oriented toward traditional and innovative techniques to represent visual concepts for communication and production. Students develop their skills in descriptive geometry and 3D visualization. The course includes sketching, perspective, and technical drawing. It also introduces creative methods of articulation and presentation. NOTE: Students who have received credit for DART 200 may not take this course for credit.

## DART 225 Materials for 3D Design

 (3 credits)Prerequisite: Enrolment in the Major in Design Art or written permission of the Department of Design Art. This foundation studio course addresses materials and construction applications. Wood, metal, and plastics are examined as the primary building materials and surfaces for object-making. Knowledge acquisition is achieved through hands-on workshops, in combination with content-driven projects. NOTE: Students who have received credit for DART 200 may not take this course for credit.

DART 229 The Pixelated Eye (3 credits) Prerequisite: Enrolment in the Major in Design Art or written permission of the Department of Design Art. This studio course introduces conceptual and technical skills for recording and manipulating digital imagery. Topics include
visual representation, image appropriation and copyright, documentation and archiving. Technical exercises and conceptually based projects take place in the studio and on location. NOTE: Students who have received credit for DART 200 may not take this course for credit.

## DART 260 Design History: Theory and Practice (6 credits)

Prerequisite: Enrolment in the Major in Design Art or written permission of the Department of Design Art. Through lectures and discussion, this course examines key themes in design and material culture history and theory since industrialization. Particular attention is paid to appropriating and reconfiguring historical material for consideration in the contemporary realm. Students' analytical, critical, and discursive skills, both oral and written, are prioritized.

## DART 280 2D Digital Concepts

 (3 credits)Prerequisite: DART 221, 223, 225 or 229; DART 290 previously or concurrently; or written permission of the Department of Design Art. The central theme of this studio course is the rescripting of formal texts into complementary works in the form of "livres d'objets". Utilizing digital layout and studio construction techniques for graphic design and packaging, students integrate design theory and practice through the inventive richness of bookworks.
NOTE: Students who have received credit for DART 200 may not take this course for credit.

## DART 290 Integrative Design Research

 ( 6 credits)Prerequisite: DART 221, 223, 225 or 229; DART 290 previously or concurrently; or written permission of the Department of Design Art. This theory-based course concentrates on integrative research and methodology in design art, by mapping the relationship of the individual within the public and private spaces of interdependence. It also investigates the interconnectedness of design to the fine arts, humanities, and sciences. NOTE: Students who have received credit for DART 210 may not take this course for credit.

## DART 298

Special Topics in Design Art (3 credits)
Prerequisite: Enrolment in the Major in Design Art or written permission of the Department of Design Art. This course provides an opportunity for the study of special issues in Design Art. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

## DART 331 Words in Space (3 credits)

 Prerequisite: DART 280; DART 390 previously or concurrently; or written permission of the Department of Design Art. This computer lab course emphasizes the poetics of typography with respect to font, type, text, and scripted experimentation. Issues of legibility, freedom of expression in type, and contemporary typography are referenced in the process of generating unique font sets.NOTE: Students who have received credit for DART 300 may not take this course for credit.

## DART 335 Interpretive Public Spaces (3 credits)

Prerequisite: DART 380 or 381 ; DART 390 previously or concurrently; or written permission of the Department of Design Art. This studio course develops strategies for interactions in the public sphere. The application of scenography, planning of space and the integration of content orients the student towards the design of museum installations, mobile exhibitions, and performative events.

## DART 339 Second Skin and Soft Wear

 (3 credits)Prerequisite: DART 380 or 381 ; DART 390 previously or concurrently; or written permission of the Department of Design Art. This studio course explores the idea of "skin" and "soft" as terms that possess physical and associative properties. Housing for the body, computer wearables, sculptural design and soft furniture are considered as design concepts for maquettes and prototypes. Recycling of materials and alternative material use are emphasized.

DART 380 3D Digital Concepts (3 credits) Prerequisite: DART 280 and second-year standing* in the Major in Design Art; or written permission of the Department of Design Art. This computer lab course introduces students to computer-assisted 3D design concepts. Practical exercises advance technical skills and are combined with thematic proposals for virtual object representation. Scaled object production is encouraged in the final stages of the studio. NOTE: Students who have received credit for DART 300 may not take this course for credit. *66 or fewer credits remaining in degree program.

DART 381 3D Digital Concepts/ Multimedia (3 credits)
Prerequisite: DART 280 and second-year standing* in the Major in Design Art; or written
permission of the Department of Design Art. This computer lab course introduces students to 3D modelling and rendering and basic animation for multimedia applications. Practical exercises advance technical skills and are combined with thematic proposals for 3D objects and virtual space in networked environments.
NOTE: Students who have received credit for DART 300 may not take this course for credit. *66 or fewer credits remaining in degree program.

## DART 390 Collaborative Design

Research (3 credits)
Prerequisite: DART 290 and enrolment in the Major in Design Art; or written permission of the Department of Design Art. This is a core theorybased studio course in research methodology and strategies for collaborative project development, highlighting the role of designer as mediator and author. Particular attention is given to the democratic voice within the community and to environmental sustainability.
NOTE: Students who have received credit for DART 310 may not take this course for credit.

## DART 398 <br> Special Topics in Design Art

 (3 credits)Prerequisite: Second-year standing* in the Major in Design Art or written permission of the Department of Design Art. This course provides an opportunity for the study of special issues in design art. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule. *66 or fewer credits remaining in degree program.

## DART 441 The Culture of Images

 (3 credits)Prerequisite: Third-year standing*; DART 490
previously or concurrently; or written permission of the Department of Design Art. This studio course explores images as composite surfaces informed by the urban landscape. Strategies for commentary, and engagement in image-saturated societies include image ethics, appropriation, and design as intervention. Book works, projected images and print series are produced, and range in size from handheld to the architectural. NOTE: Students who have received credit for DART 422 may not take this course for credit. *33 or fewer credits remaining in degree program.

## DART 442 Scenarios for Typography

(3 credits)
Prerequisite: DART 331; DART 490 previously or concurrently; or written permission of the Department of Design Art. This computer lab course, subtitled "Gutenberg verses for a Macintosh play," engages in the eccentricity of typographic exploration through relocation, rescaling, and renaming of script. The potential for poetic play on words is explored through text as image and object.
NOTE: Students who have received credit for DART 422 may not take this course for credit.

## DART 443 Print: Meaning and Process

 (3 credits)Prerequisite: Third-year standing*; DART 490
previously or concurrently; or written permission of the Department of Design Art. This computer lab course focuses on graphic design in publishing systems. The implications of mass production, the responsible use of resources, and alternative print and packaging processes are key factors in the ecology of image production.
NOTE: Students who have received credit for DART 424 may not take this course for credit. *33 or fewer credits remaining in degree program.

DART 444 The Articulate Self (3 credits)
Prerequisite: Third-year standing*; DART 490
previously or concurrently; or written permission of the Department of Design Art. The uniqueness of each artistic identity is explored in this course through the production of the portfolio. Content and written support must be developed in tandem to locate the experience, abilities, and future potential of the designer.
NOTE: Students who have received credit for DART 424 may not take this course for credit. *33 or fewer credits remaining in degree program.

## DART 445 The Narrative Object

 (3 credits)Prerequisite: Third-year standing*; DART 380 or 381; DART 490 previously or concurrently; or written permission of the Department of Design Art. In this studio course, the mythic potential of objects as personal and cultural markers is considered in the context of everyday life. Students construct meaning through objects, responding to the potential for expression inherent in materials, structure, and form. The rigour of observation, analysis, and interpretation of object stimulates opportunities for multiple readings.
NOTE: Students who have received credit for DART 423 may not take this course for credit. *33 or fewer credits remaining in degree program.

DART 446 Encultured Space (3 credits)
Prerequisite: Third-year standing*; DART 490
previously or concurrently; or written permission of the Department of Design Art. This design studio course focuses on the notion that all objects reside in an encultured space. Students are encouraged to investigate the nuances and connotations of the urban landscape which govern an understanding of these objects, by direct interventions into physical and symbolic character.
NOTE: Students who have received credit for DART 423 may not take this course for credit. *33 or fewer credits remaining in degree program.

## DART 447 3D Design Technologies

 (3 credits)Prerequisite: Third-year standing*; DART 380; DART 490 previously or concurrently; or written permission of the Department of Design Art. This design studio course allows students to explore the integration of digital technologies in all aspects
of the design process. Computer-assisted design, 3D scanning and rapid prototyping technologies are facilitated in order to develop innovative concepts in object production.
NOTE: Students who have received credit for DART 425 may not take this course for credit. *33 or fewer credits remaining in degree program.

## DART 448 Ecology and 3D Design

 (3 credits)Prerequisite: Third-year standing*; DART 380; DART 490 previously or concurrently; or written permission of the Department of Design Art. This design studio course is oriented towards sustainable design and environmental issues. Strategies including design for disassembly, recuperation, recycling and lifecycle analysis are used to develop objects that conform with principles of design responsibility. Student works will be juried and selected for public exhibition.
NOTE: Students who have received credit for DART 425 may not take this course for credit. *33 or fewer credits remaining in degree program.

## DART 449

## The Language of the Web

 (3 credits)Prerequisite: Third-year standing*; DART 490
previously or concurrently; or written permission of the Department of Design Art. This lab course explores the technical and conceptual challenges facing designers working online. Students construct Web sites engaging directly with notions of interactivity, graphic user interface, image sequencing, navigation, and innovative ways of organizing and disseminating information.
NOTE: Students who have received credit for DART 410 or 411 may not take this course for credit.
*33 or fewer credits remaining in degree program.
DART 450 Web Interventions (3 credits)
Prerequisite: Third-year standing*; DART 490 previously or concurrently; or written permission of the Department of Design Art. This lab course examines the strategies and discourse of socially engaged designers, artists in networked environments. Through the creation of their own online interventions, students are encouraged to question the "promise" of new communication technologies as open and democratic instruments of social change.
NOTE: Students who have received credit for DART 410 or 411 may not take this course for credit.
*33 or fewer credits remaining in degree program.

## DART 451 Digital Interaction (3 credits)

Prerequisite: Third-year standing*; DART 381; DART 490 previously or concurrently; or written permission of the Department of Design Art. This lab course considers the rhetoric of interactivity. The ubiquity of the graphic user interface is problematized through the use of non-linear narrative and metaphor. Students
develop and relect new paradigms for humancomputer interaction.
NOTE: Students who have received credit for DART 410 or 411 may not take this course for credit.
*33 or fewer credits remaining in degree program.
DART 452 Immersive Media ( 3 credits)
Prerequisite: Third-year standing*; DART 381;
DART 490 previously or concurrently; or written permission of the Department of Design Art. Students in this interdisciplinary lab course consider the expanded use of technologies for digital media in the context of 3D objects and environments. Through collaborative projects, students explore immersive installations integrating sound, video, interactivity, and performative events.
NOTE: Students who have received credit for DART 410 or 411 may not take this course for credit.
*33 or fewer credits remaining in degree program.
DART 460 Independent Study ( 3 credits)
Prerequisite: Fewer than 33 credits remaining in the Design Art Major or written permission of the Department of Design Art. This option is for students wishing to undertake independent research under the supervision of a full-time faculty adviser.

DART 461 Independent Study (3 credits) Prerequisite: Fewer than 33 credits remaining in the Design Art Major or written permission of the Department of Design Art. This option is for students wishing to undertake independent research under the supervision of a full-time faculty adviser.

## DART 470 Professional Internship

(6 credits)
Prerequisite: Third-year standing* in the Major in Design Art and written permission of the Department of Design Art. This option is for students wishing to undertake research and obtain practical experience for academic credit as an intern with an established artist/designer, studio, publication, publishing house, museum, corporation, or non-profit organization. Other
related options for internship will also be considered. The internship is carried out under the joint supervision of a qualified professional from within the University or the organization involved and a full-time faculty member. A clearly defined agreement between the Department, the student and the artist/designer or institution involved is made before the internship is undertaken. This agreement states clearly the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate an appropriate academic experience for the student. *33 or fewer credits remaining in degree program.

## DART 471 Professional Internship

 (3 credits)Prerequisite: Third-year standing* in the Major in Design Art and written permission of the Department of Design Art. Three-credit internship, as described in DART 470, for one semester only. *33 or fewer credits remaining in degree program.

## DART 490 Discursive Design Research

 (6 credits)Prerequisite: DART 390 or written permission of the Department of Design Art. This core theoretical course combines lectures and discussions, emphasizing the contextual and societal implications of the design process from conception to production. Multidisciplinary approaches to design research and methodology allow students to advance the discourse of their own emerging design ethic and aesthetic.
NOTE: Students who have received credit for DART 400 may not take this course for credit.

## DART $498 \quad$ Special Topics in Design Art

 (3 credits)Prerequisite: Second-year standing* in the Major in Design Art or written permission of the Department of Design Art. A course for advanced students which provides an opportunity for the study of special issues in design art. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.
*66 or fewer credits remaining in degree program.

# 0190 digital image/sound AND THE FINE ARTS 


81.90.1

Admission
Requirements

The Major in Digital Image/Sound ( 45 credits) must be taken in combination with the Option in Computer Applications ( 45 credits) offered by the Department of Computer Science. Candidates applying for the Major in Digital Image/Sound are required to have successfully completed the following courses: Calculus I, Calculus II, and Introduction to Linear Algebra. Applicants to the Specialization or Minor in Digital Image/Sound require no background in mathematics. In addition to submitting a completed General Application Form to the Office of the Registrar by March 1, all applicants to the Specialization, Major, or Minor in Digital Image/Sound and the Fine Arts must submit a portfolio. The portfolio must be submitted to the Visual Arts Building, Room 244, before March 8, 2003.

The portfolio should consist of:

1. a letter of intent explaining the applicant's reasons for applying to the program, his/her expectations of the program, and short- and long-term goals as they relate to the program;
2. a photocopy of the applicant's most recent academic record;
3. the best examples of the applicant's work; it does not necessarily need to be solely digital technology work. It should demonstrate the applicant's creative and technological potential as a multimedia artist or programmer. It should consist of approximately 10 to 20 pieces of visual work and/or a video of no more than 10 minutes and/or an audio CD of no more than 10 minutes.
The portfolio must conform to the following technical guidelines:

- videos must be VHS, Hi-8mm, or 8 mm only and "cued up" at the beginning of the selection the applicant wishes the committee to see;
- sound tapes must be digital (CD);
- portfolios may include CD-Roms, Kodak Photo-CDs, data cartridges (ZIP), and/or URL reference to a Web site;
- HTML files must be compatible with Internet Explorer or Netscape Navigator, but self-running desktop presentation is preferred;
- still computer graphic images should be presented as slides or hard-copy prints;
- two-dimensional works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
Courses

DFAR 251 Web In Sites (3 credits)
Prerequisite: Enrolment in the Specialization, Major, or Minor in Digital Image/Sound and the Fine Arts, or written permission of the Department. The Web is explored as a medium of expression for digital media concepts. A historical overview related to interdisciplinary research on technological developments in art, science, and industry is the theoretical reference base for the technical and conceptual challenges of working online.

## DFAR 252 Image/Sound/Dimension

 (3 credits)Prerequisite: Enrolment in the Specialization, Major, or Minor in Digital Image/Sound and the Fine Arts, or written permission of the Department. In this introductory lab, students pursue individual and collaborative projects in the three concentrations of digital media and their technical skill sets. Web and screen-based imaging, auditory works, 3D modelling and animation are produced in the context of digital applications and contemporary discourse in the fine arts.

## DFAR 351 Networks and Navigation (3 credits)

Prerequisite: DFAR 251 or written permission of the Department. In this studio course, students develop interactive Web sites and virtual galleries for project dissemination and new communication structures. The perceptual and aesthetic aspects of digital media are addressed in relation to the technical skill sets required for navigating and understanding the possibilities and limits of networked environments.
NOTE: Students who have received credit for DFAR 350 may not take this course for credit.

## DFAR 352 Synthetic Sound and Image

 (3 credits)Prerequisite: DFAR 252; EAMT 398B previously or concurrently; or written permission of the Department. Synthesis, synaesthesia and syn-
thetic are the key discursive terms for research in this studio. Students are encouraged to explore the interconnectedness of image and sound through the medium of digital video. Concurrent with project ideation, the tools and techniques of image and audio processing will be advanced.
NOTE: Students who have received credit for DFAR 350 may not take this course for credit.

## DFAR 353 The Languages of

 Programming (3 credits)Prerequisite: DFAR 251 or written permission of the Department. The fundamentals of computer programming are introduced through exercises and studio projects. Students are exposed to scripting and programming in order to understand the principles of graphic design and user interface.

DFAR 354 Virtual Dimensions (3 credits) Prerequisite: DFAR 252 or written permission of the Department. This studio course focuses on 3D modelling and animation for online and virtual productions. Concurrent with the development of technical skill sets, students are encouraged to investigate thematic project development and innovative navigation strategies for Web design, animation, gaming and spatial environments.

## DFAR 355 Topics in Kinetic Imagery

 (3 credits)Prerequisite: Second-year standing* in the Specialization, Major, or Minor in Digital Image/ Sound and the Fine Arts. This course provides an opportunity for the study of special topics in kinetic imagery. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule. *66 or fewer credits remaining in degree program.

## DFAR 356 Topics in Abstract Soundscapes (3 credits) <br> Prerequisite: Second-year standing* in the

Specialization, Major, or Minor in Digital Image/ Sound and the Fine Arts. This course provides an opportunity for the study of special topics in abstract soundscapes. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.
*66 or fewer credits remaining in degree program.

## DFAR 357 Topics in Digital Space

 (3 credits)Prerequisite: Second-year standing* in the Specialization, Major, or Minor in Digital Image/ Sound and the Fine Arts. This course provides an opportunity for the study of special topics in digital space. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule. *66 or fewer credits remaining in degree program.

## DFAR 358 Topics in Senses and Perception (3 credits)

Prerequisite: Second-year standing* in the Specialization, Major, or Minor in Digital Image/ Sound and the Fine Arts. Research into sensory perception, touch, and noise is key to project proposals, methodology, and production. Interdisciplinary referencing and collaboration with electronic arts is emphasized. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.
*66 or fewer credits remaining in degree program.

## DFAR 398 Special Topics in Digital

 Image/Sound (3 credits) Prerequisite: Enrolment in the Specialization, Major, or Minor in Digital Image/Sound and the Fine Arts, or written permission of the Department. This course provides an opportunity for the study of specialized aspects and applications in digital image/sound. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.
## DFAR 451 Interactive Multimedia (3 credits)

Prerequisite: DFAR 351 or written permission of the Department. This theory-based course investigates diverse critical paths in media design which reside in the expanded use of technologies which (in)form high-tech society. The challenge is to harness these tools in order to redirect the linear transmission of data into the creation of multi-sensorial voyages into communication
NOTE: Students who have received credit for DFAR 450 may not take this course for credit.

## DFAR 452 Tri-Media Productions

 (3 credits)Prerequisite: Third-year standing* in the Specialization or Major in Digital Image/Sound and the Fine Arts, or written permission of the Department. Students pursue individualized projects from one or more of the three areas of
concentration: visual Web/screen-based projects, auditory/sonic works, three-dimensional/modelling/animation.
NOTE: Students who have received credit for DFAR 450 may not take this course for credit. *33 or fewer credits remaining in degree program.

DFAR 453 The Digital Nomad (3 credits) Prerequisite: Third-year standing* in the Specialization or Major in Digital Image/Sound and the Fine Arts, or written permission of the Department. This studio course is jointly offered by Computer Science and Fine Arts, and is based on mobility or nomadic considerations in digital project archiving and dissemination. Transportable and flexible equipment configurations are developed to support on-site performance events, projection, and multimedia installations. *33 or fewer credits remaining in degree program.

## DFAR 454 Topics in Multimedia Theory

 (3 credits)Prerequisite: Third-year standing* in the
Specialization or Major in Digital Image/Sound and the Fine Arts, or written permission of the Department. A seminar with a studio component which concentrates on current discourse in multimedia.
*33 or fewer credits remaining in degree program.

## DFAR 455 Professional Internship I

(3 credits)
Prerequisite: Third-year standing* in the Specialization or Major in Digital Image/Sound and the Fine Arts, or written permission of the Department. Students work in the industry for a period of nine to thirteen weeks to allow them to gain experience in design firms and multimedia companies. Internships approved for credit must demonstrate an appropriate academic experience for the student.
*33 or fewer credits remaining in degree program.

## DFAR 456 Professional Internship II

 (3 credits)Prerequisite: Third-year standing* in the Specialization or Major in Digital Image/Sound and the Fine Arts, or written permission of the Department. Students work in the industry for a period of nine to thirteen weeks to allow them to gain experience in design firms and multimedia companies. Internships approved for credit must demonstrate an appropriate academic experience for the student.
*33 or fewer credits remaining in degree program.
DFAR 457 Independent Study I (3 credits) Prerequisite: Written permission of the Department. This option is for students choosing to undertake independent research under the supervision of a full-time faculty adviser. Research projects approved for credit must demonstrate an appropriate academic experience for the student.

DFAR 458 Independent Study II (3 credits) Prerequisite: Written permission of the Department. This option is for students choosing to
undertake independent research under the supervision of a full-time faculty adviser. Research projects approved for credit must demonstrate an appropriate academic experience for the student.

DFAR 498 Special Topics in Digital Image and Sound (3 credits)
Prerequisite: Enrolment in the Specialization, Major, or Minor in Digital Image/Sound and the Fine Arts, or written permission of the Department. An advanced course which provides an opportunity for the study of specialized aspects and applications in digital fine arts. Specific topics for this course, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

### 81.100 msc



Students are responsible for fulfiling their particular degree requirements; hence, the following sequences must be read in conjunction with $\S 81.20$. The superscript indicates credit value.

## SPECIALIZATION IN MUSIC

The Faculty of Fine Arts offers four Specialization programs in Music, each of 66 credits. Students applying for entrance to the Department are accepted into the Major in Integrative Music Studies. Upon completion of 30 credits, students may apply for transfer into a Specialization. Acceptance into a Specialization is based on the student's general academic performance in all University courses, but especially in the Music courses.

| 66 | BFA Specialization in Jazz Studies |  | MPER $231^{3}, 490^{6}$ |
| :--- | :--- | ---: | :--- |
| 6 | JAZZ 200 |  |  |

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        6 6 ~ B F A ~ S p e c i a l i z a t i o n ~ i n ~ S e l e c t e d ~ M u s i c ~
        Studies
    15 INMS 310', 350*; MPER 2313
    3-6 Chosen from MUSI 2306, 2313, 232
    6 MHIS 2006 or, if exempt, MHIS electives
    6 MHIS electives
    3-6 MUSI 4913, 492 }\mp@subsup{}{}{3
27-30 Department of Music electives, excluding
        MUSI 200, INMS 209 and 250, chosen
        in consultation with a Music adviser
*With permission of the Department of Music,
students with exemption for INMS 350 substitute
INMS 450.
Eligibility:
Completion of 30 credits, with a "B" average or
better
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## Entrance:

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Submission and approval of plan of course work and Special Project (MUSI 491).
Review:
Upon completion of the courses in this Specialization, the Special Project is evaluated by the appropriate Review Committee. The type of evaluation used depends upon the nature of the project: exhibition, concert, recording, essay, musical production, etc.
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## 48 BFA Major in Electroacoustic Studies

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    MUSI 200
    INMS 2093, 2506
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6 MHIS $200^{6}$ or, if exempt, MHIS electives
6 EAMT $205^{6}$ or EAMT $203^{3}$ and $204^{3}$
15 Chosen from EAMT $305^{6}, 350^{6}, 406^{3}$, $407^{3}, 451^{3}, 452^{3}, 471^{3}, 472^{3}, 498^{3}$
6 Department of Music electives
54 BFA Major in Integrative Music Studies
24 INMS $209^{3}, 250^{6}, 310^{6}, 350^{6 *}$; MPER $231^{3}$
3-6 Chosen from MUSI $230^{6}, 231^{3}, 232^{3}$
6 MHIS $200^{6}$ or, if exempt, MHIS electives
6 MHIS electives
12-15 Department of Music electives, excluding MUSI 200
*With permission of the Department of Music, students with exemption for INMS 350 substitute INMS 450.

24 Minor in Electroacoustic Studies
12 EAMT $205^{6}$ or EAMT $203^{3}$ and $204^{3}$; EAMT $305^{6}$
6 Department of Music electives
6 Chosen from MUSI 200́; JAZZ 200 ${ }^{6}$; MHIS $200^{6}$

24 Minor in Music
9 INMS $209^{3}$ and $250^{6}$ or, if exempt, Music electives selected in consultation with a Music adviser
15 Music electives chosen in consultation with a Music adviser
81.100 .1

Admission to
Programs in Music

Admission to Courses
in Music for NonMusic Students

The Department of Music has a distinct admission procedure in addition to the normal admission process of Concordia University. Applicants to Music programs are required to contact the Department of Music before March 1 to arrange their appointments and obtain other information regarding admission procedures.
All applicants to the Major in Integrative Music Studies attend an interview/audition. At the audition, candidates must present two contrasting works. Accompanists should be provided by the candidate. Out-of-town applicants may provide a video recording but are encouraged to audition in person. All applicants to the Major and Minor in Electroacoustic Studies must submit a portfolio including a letter of intent as part of the admission process. There is no need for an in-person interview/audition. Portfolios should consist of:

1. a letter of intent describing why the applicant wishes to enter the selected program and how it is relevant to his/her studies;
2. CD-R or DAT recordings representative of the applicant's sound artwork. They must be welllabelled including the applicant's name, date, and title of works. An explanatory document should describe the details of the applicant's participation on the recording(s), as well as details of works and techniques used, and indications of collaboration, if any;
3. a copy of the applicant's current transcript.

Portfolios should be presented in a sturdy folder. Return shipment of out-of-town portfolios is by prior arrangement only. Portfolios are submitted to the Portfolio Evaluation Committee, Refectory, Room 326.
All applicants to Major and Minor programs in Music are required to write a Theory and Ear-Training placement test (for placement in theory courses).

Specific procedures must be followed by all non-Music Majors wishing to register in the Department of Music.
a) Not all courses are available to non-Music students. Please consult the Department of Music for policy and accessibility of courses.
b) Students who wish to register for courses which have a theory prerequisite, given availability, must write the Theory placement test. This is done in the Department of Music at least two weeks prior to the registration appointment date.
c) Students who wish to sing or play in an ensemble must contact the Department of Music for information concerning audition and registration for Music Performance courses.

For specific information regarding entrance to courses in the Department of Music please see above.

Music:
MUSI 200 Music Literacy and Keyboard Skills (6 credits)
An intensive introductory course in basic musical materials, with integrated practice in aural training and keyboard skills.
NOTE: Students in a Major, Minor, or Specialization program in the Department of Music (excluding the Major and Minor in Electroacoustic Studies) may not take this course for credit. NOTE: Students who have received credit for this topic under INMS 499 may not take this course for credit.

MUSI 223 Understanding Music (3 credits) A course in analytical listening for the student who has little or no musical background. The works studied represent the major styles and idioms of Western music. NOTE A/See §200.3 NOTE: Students in a Major, Minor, or Specialization program in the Department of Music may not take this course for credit towards their degrees.

NOTE: Students are limited to a maximum of 18 credits in Private Study.

MUSI $230 \quad$ Private Study I ( 6 credits)
Prerequisite: Written permission of the Department of Music. This course offers individual vocal or instrumental instruction in an approved area of music coordinated with the student's program. NOTE A/See §200.3
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.

MUSI $231 \quad$ Private Study la (3 credits) Prerequisite: Written permission of the Department of Music. This course offers individual vocal or instrumental instruction in an approved area of music coordinated with the student's program.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.

MUSI 232 Private Study lb (3 credits)
Prerequisite: MUSI 231 and written permission of the Department of Music. A continuation of MUSI 231.

## MUSI 265 Rock and Roll and lts Roots

 (3 credits)A study of the history, traditions, styles, and musical trends of rock and roll.
NOTE: Students in the Major or Minor in Integrative Music Studies or Specialization programs in the Department of Music may not apply this course for credit in a 90-credit degree program. NOTE: Students who have received credit for
this topic under an MUSI 398 number may not take this course for credit.

MUSI 330 Private Study II (6 credits)
Prerequisite: MUSI 230 or 231 or 232; secondyear standing*; written permission of the Department of Music. A continuation of MUSI 230.
NOTE A/See §200.3
NOTE: Students enrolled in the Specialization in Music Performance Studies register in MPER 390.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.
*66 or fewer credits remaining in degree program.
MUSI $331 \quad$ Private Study Ila (3 credits)
Prerequisite: MUSI 230 or MUSI 231 and 232; second-year standing*; written permission of the Department of Music. A continuation of MUSI 232.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.
*66 or fewer credits remaining in degree program.
MUSI $332 \quad$ Private Study IIb (3 credits) Prerequisite: MUSI 331 and written permission of the Department of Music. A continuation of MUSI 331.

## MUSI 398 Special Topics in Music

 (3 credits)Prerequisite: Written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

## MUSI 399 Special Topics in Music (6 credits)

Prerequisite: Written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

MUSI $430 \quad$ Private Study III (6 credits)
Prerequisite: MUSI 330 or 331 or 332; third-year standing*; written permission of the Department of Music. A continuation of MUSI 330.
NOTE A/See §200.3
NOTE: Students enrolled in the Specialization in Music Performance Studies register in MPER 490.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course. *33 or fewer credits remaining in degree program.

MUSI $431 \quad$ Private Study IIla (3 credits)
Prerequisite: MUSI 330 or MUSI 331 and 332;
third-year standing*; written permission of the Department of Music. A continuation of MUSI 332.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.
*33 or fewer credits remaining in degree program.
MUSI $432 \quad$ Private Study IIIb (3 credits) Prerequisite: MUSI 431 and written permission of the Department of Music. A continuation of MUSI 431.

## MUSI 491 Special Project in Music

 (3 credits)Prerequisite: Enrolment in the Specialization in Selected Music Studies. This course affords an opportunity for extensive development of a project under the direction of a Faculty member. Students submit a project proposal in accordance with the regulations for admission to the Specialization. NOTE: Students repeating MUSI 491 register for MUSI 492 for credit provided the subject matter is different.
NOTE: If the special project is within the realm of performance, the student is required to participate in public performances.

## MUSI 492 Special Project in Music (3 credits)

Prerequisite: MUSI 491. A continuation of MUSI 491.
NOTE: If the special project is within the realm of performance, the student is required to participate in public performances.

## MUSI 498 Special Topics in Music (3 credits)

Prerequisite: Written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

## MUSI 499 Special Topics in Music

 ( 6 credits)Prerequisite: Written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

## Electroacoustics and Music Technology:

EAMT 203 Digital Audio Editing (3 credits) An introduction to the study and practice of the Acousmatic and Sound Art tradition through the use of the computer as a manipulation platform and creative environment for the exploration of sound. This course includes historical and aesthetic aspects of the art. Classic and contemporary electroacoustic techniques are explored as well as applications of electroacoustics in
popular music. Related topics in acoustics, psychoacoustics, hearing, and audio technology are covered in order to provide a background for effective work in the digital environment. NOTE: Students who have received credit for EAMT 205 or for this topic under an EAMT 398 or 399 number may not take this course for credit.

## EAMT 204 Analog Studio Techniques (3 credits)

Prerequisite: EAMT 203. A lecture/workshop introduction to the analog studio. This course offers continued study and practice of the Acousmatic and Sound Art through historical, aesthetic, and compositional assignments, as well as continued development of classic and contemporary electroacoustic techniques as they relate to the analog electroacoustic studio. Aspects of the studio including the basics of recording, tape manipulation techniques, mixing and multi-track recording, analog synthesis and signal processing are introduced and covered. Related topics in acoustics, psychoacoustics, hearing, and audio technology are covered in order to provide a background for effective work in the electroacoustic studio environment. NOTE: Students who have received credit for EAMT 205 or for this topic under an EAMT 398 or 399 number may not take this course for credit.

EAMT 205 Electroacoustics I (6 credits)
A seminar/workshop in electroacoustics introducing composition through a series of directed studies involving tape editing, recording, musique concrète, processing of analog sounds, and analog synthesis. Other topics include history, acoustics and psycho-acoustics, recent technological developments, digital signal processing, computer applications, and MIDI. Classroom and laboratory. NOTE A/See §200.3
NOTE: Students are required to bear the cost of materials.
NOTE: Students who have received credit for CMUS 310 may not take this course for credit.

EAMT 305 Electroacoustics II ( 6 credits) Prerequisite: EAMT 205 or EAMT 203 and 204. A seminar/workshop in electroacoustics with continued work in composition, history, and sound technology. Technological developments, computer applications, MIDI, and contemporary techniques are explored in depth through a series of directed studies involving digital signal processing, multi-track studio techniques, digital synthesis and sampling. Classroom and laboratory. NOTE A/See §200.3
NOTE: Students are required to bear the cost of materials.
NOTE: Students who have received credit for CMUS 410 may not take this course for credit.

## EAMT 350 Sound Recording and

 Reinforcement I ( 6 credits)Prerequisite: MUSI 200 or EAMT 205. An intensive hands-on seminar/workshop studying the techniques used to record and edit music in settings ranging from live concert performances
to studio session recordings. Hands-on experience and aural perception is developed during ensemble rehearsal and recording sessions. Emphasis is placed on production topics such as multi-track recording, microphone placement systems, audio processes. An understanding of the language of music through basic music appreciation skills as they relate to recording and editing of music is developed.
NOTE A/See §200.3
NOTE: Students who have received credit for CMUS 350 may not take this course for credit.

## EAMT 398 Special Topics in Electroacoustics and Technology (3 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in electroacoustics and technology.

## EAMT 399 Special Topics in Electroacoustics and Technology ( 6 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in electroacoustics and technology.

## EAMT 406 Electroacoustic Composition Seminar/Workshop I (3 credits)

Prerequisite: EAMT 305. A seminar/workshop for advanced students in electroacoustics. The focus is compositional. An interdisciplinary aspect to the final project is encouraged. Classroom and laboratory. NOTE C/See §200.3 NOTE: This is a full-year course.
NOTE: Students are required to bear the cost of materials.
NOTE: Students who have received credit for CMUS 446 may not take this course for credit.
EAMT 407 Electroacoustic Composition Seminar/Workshop II (3 credits)
Prerequisite: EAMT 406. A continuation of EAMT 406.
NOTE: This is a full-year course.
NOTE: Students are required to bear the cost of materials.
NOTE: Students who have received credit for CMUS 447 may not take this course for credit.

## EAMT 451 Sound Recording and Reinforcement II (3 credits)

Prerequisite: EAMT 350. A continuation of EAMT 350. Emphasis is on advanced independent projects.
NOTE: This is a full-year course.
NOTE: Students who have received credit for CMUS 450 may not take this course for credit.

## EAMT 452 Sound Recording and

Reinforcement III (3 credits)
Prerequisite: EAMT 451. A continuation of EAMT 451.
NOTE: This is a full-year course.
EAMT 471* Independent Study I (3 credits) Prerequisite: Written permission of the Department of Music. A student-designed course of
study, approved by an advisor, that focuses on an area of electroacoustics and/or music technology. *Students may count a maximum of nine credits in independent studies towards their degree program.
EAMT 472* Independent Study II (3 credits) Prerequisite: EAMT 471 and written permission of the Department of Music. A student repeating EAMT 471 registers for EAMT 472 for credit. *Students may count a maximum of nine credits in independent studies towards their degree program.

## EAMT 498 Special Topics in Electroacoustics and Technology (3 credits)

Prerequisite: Written permission of the Department of Music. An advanced study of a selected area not available in other courses in electroacoustics and technology.

## EAMT 499 Special Topics in Electroacoustics and Technology ( 6 credits)

Prerequisite: Written permission of the Department of Music. An advanced study of a selected area not available in other courses in electroacoustics and technology.

## Integrative Music Studies:

INMS 209 Aural Perception I (3 credits)
Prerequisite: MUSI 200 or exemption. A course designed to develop the musical ear through sight-singing, dictation, aural analysis. Classroom and laboratory.
NOTE: Students enrolled in any specialization offered by the Department of Music may not apply credits for this course towards the 90 -credit degree requirements.
NOTE: Students who have received credit for this topic under INMS 499 or MUSI 210 may not take this course for credit.

INMS 250 Music Theory I ( 6 credits) Prerequisite: MUSI 200 or exemption. An extensive course in music theory, including diatonic harmony, counterpoint, and keyboard skills. NOTE: Students enrolled in any specialization offered by the Department of Music may not apply credits for this course towards the 90-credit degree requirements.
NOTE: Students who have received credit for this topic under INMS 499 or MUSI 210 may not take this course for credit.

INMS 310 Aural Perception II ( 6 credits) Prerequisite: INMS 209 or exemption. A course in aural development through sight-reading, dictation, transcription and aural analysis. NOTE A/See §200.3

INMS 320 Comparative Analysis I ( 6 credits)
Prerequisite: INMS 350 or exemption. Development of analytical methodology. Study of selected works representing various forms and styles from different historical periods. NOTE A/See §200.3

INMS 350 Music Theory II ( 6 credits) Prerequisite: INMS 250 or exemption. A workshop in theory, studying further development in chromatic harmony, counterpoint, and analysis. Approaches may include compositional exercises. NOTE A/See §200.3
NOTE: Students who have received credit for INMS 200 may not take this course for credit.

INMS 360 Music Composition I ( 6 credits)
Prerequisite: Written permission of the Department of Music. A seminar/workshop in composition. Emphasis is on the development of the individual's composition skills. NOTE A/See §200.3
NOTE: Students who have received credit for CMUS 320 may not take this course for credit.

## INMS 398 Special Topics in Music Theory/Composition (3 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in theory, aural perception, composition, or orchestration.

## INMS 399 Special Topics in Music Theory/Composition (6 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in theory, aural perception, composition, or orchestration.

## INMS 410 Advanced Aural Training

 ( 6 credits)Prerequisite: INMS 310 or exemption. An intensive study of selected problems in hearing, analysing, and transcribing music. The course combines individual and group exercises.

## NOTE A/See §200.3

INMS 450 Advanced Music Theory ( 6 credits)
Prerequisite: INMS 350 or exemption. Analytical and compositional study of chromatic harmony, counterpoint, and longer forms, focusing on the musical styles of the nineteenth and twentieth centuries. NOTE A/See §200.3
NOTE: Students who have received credit for INMS 300 may not take this course for credit.

INMS 460 Music Composition II ( 6 credits) Prerequisite: INMS 360 and written permission of the Department of Music. A continuation of INMS 360. NOTE A/See §200.3
NOTE: Students who have received credit for CMUS 420 may not take this course for credit.

INMS 471* Independent Study I (3 credits) Prerequisite: Written permission of the Department of Music. A student-designed course of study that focuses on an approved area(s) of music theory, analysis, aural perception, orchestration, and/or related disciplines, and involves consultation with an adviser.

## NOTE C/See §200.3

*Students may count a maximum of nine credits in independent studies towards their degree program.

INMS 472* Independent Study II (3 credits) Prerequisite: Written permission of the Department of Music. A student repeating INMS 471 registers for INMS 472 for credit.
*Students may count a maximum of nine credits in independent studies towards their degree program.

## INMS 498 Special Topics in Music Theory/Composition (3 credits)

 Prerequisite: Written permission of the Department of Music. An advanced study of a selected area not available in other courses in theory, aural perception, composition, or orchestration.
## INMS $499 \quad$ Special Topics in Music Theory/Composition (6 credits)

Prerequisite: Written permission of the Department of Music. An advanced study of a selected area not available in other courses in theory, aural perception, composition, or orchestration.

## Jazz Studies:

JAZZ 200 The Language of Jazz ( 6 credits)
An introduction to the syntax, style, aesthetics, and sociology of jazz. The complete spectrum of styles and artists serves as the basis of materials for the course. NOTE A/See §200.3
NOTE: Students who have received credit for CMUS 200 may not take this course for credit.

JAZZ 301 Jazz Harmony (3 credits)
Prerequisite: JAZZ 200; MUSI 200; or exemptions. The basics of jazz harmony. NOTE: Students who have received credit for this topic under an INMS 498 number may not take this course for credit.
JAZZ 302 Jazz Arranging I (3 credits)
Prerequisite: JAZZ 301. The introductory study of writing arrangements based upon compositions from the American popular song and jazz repertoires for small and medium-size jazz ensembles. NOTE A/See §200.3
NOTE: Students who have received credit for INMS 332 may not take this course for credit.

JAZZ 305 Jazz Composition I ( 6 credits) Prerequisite: JAZZ 302. A seminar/workshop in jazz composition. After an examination of components of composition from the jazz repertoire, students write original music based on the blues, American popular song forms, and such idioms as those in the style of bebop, bossa nova, ragtime, and modal jazz.
NOTE A/See §200.3
NOTE: Students who have received credit for CMUS 330 may not take this course for credit.
JAZZ 398 Special Topics in Jazz Studies (3 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

## JAZZ 401 Jazz Arranging II (3 credits)

 Prerequisite: JAZZ 302. The continued study of writing arrangements for large ensembles including original compositions and jazz repertoire. NOTE A/See §200.3NOTE: Students who have received credit for INMS 431 may not take this course for credit.

JAZZ 402 Jazz Arranging III (3 credits) Prerequisite: JAZZ 401. The study of advanced techniques in jazz arranging. NOTE A/See §200.3 NOTE: Students who have received credit for INMS 432 may not take this course for credit.

JAZZ 405 Jazz Composition II ( 6 credits) Prerequisite: JAZZ 305. A continuation of JAZZ 305. NOTE A/See §200.3
NOTE: Students who have received credit for CMUS 430 may not take this course for credit.

JAZZ 471** Independent Study I (3 credits) Prerequisite: Second-year standing*, and written permission of the Department of Music. A student-designed course of study, approved by an advisor, that focuses on an area of jazz studies. NOTE C/See §200.3
*66 or fewer credits remaining in degree program.
**Students may count a maximum of nine credits in independent studies towards their degree program.

JAZZ 472** Independent Study II (3 credits) Prerequisite: JAZZ 471, second-year standing*, and written permission of the Department of Music. A student-designed course of study, approved by an advisor, that focuses on an area of jazz studies. NOTE C/See §200.3 *66 or fewer credits remaining in degree program. **Students may count a maximum of nine credits in independent studies towards their degree program.

JAZZ 498 Special Topics in Jazz Studies (3 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

## JAZZ 499 Special Topics in Jazz Studies ( 6 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

## Jazz Performance:

JPER 220 Jazz Ensemble I ( 6 credits)
Prerequisite: JAZZ 200 previously or concurrently. A performance course in which students participate in various Concordia jazz ensembles. NOTE A/See §200.3
NOTE: Students are required to participate in public performances.
NOTE: Students who have received credit for CMUS 300 may not take this course for credit.

JPER 321 Jazz Ensemble II (3 credits)
Prerequisite: JPER 220. A continuation of
JPER 220. NOTE A/See §200.3
NOTE: This is a full-year course.
NOTE: Students are required to participate in public performances.
NOTE: Students who have received credit for CMUS 401 may not take this course for credit.

JPER 330 Jazz Improvisation I ( 6 credits) Prerequisite: JAZZ 301 previously or concurrently; JAZZ 200. A performance-analysis course that examines the craft of jazz improvisation. A broad spectrum of jazz improvisational styles is examined. Participation in public performance is required.
NOTE: Students who have received credit for MPER 330 may not take this course for credit.

## JPER 341 Jazz Vocal Repertoire I (3 credits)

Prerequisite: JAZZ 200; MUSI 231 in voice previously or concurrently. A study of jazz vocal technique through performance of representative compositions and arrangements, and study of professional recordings illustrative of various jazz vocal styles. Special focus is on performance styles as they relate to building audience-performer relationships. Students are expected to participate in public performances. NOTE: Students who have received credit for this topic under an MPER 498 number may not take this course for credit.

## JPER 398 Special Topics in Jazz Performance (3 credits)

 Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An study of a selected area not available in other courses in jazz performance.
## JPER 399 Special Topics in Jazz <br> Performance ( 6 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A study of a selected area not available in other courses in jazz performance.
JPER 421 Jazz Ensemble III (3 credits) Prerequisite: JPER 321. A continuation of JPER 321. NOTE A/See §200.3
NOTE: This is a full-year course
NOTE: Students are required to participate in public performances.
NOTE: Students who have received credit for CMUS 402 may not take this course for credit.

JPER 422 Jazz Ensemble IV (3 credits) Prerequisite: JPER 421. A continuation of JPER 421. NOTE A/See §200.3
NOTE: This is a full-year course
NOTE: Students are required to participate in public performances.

## JPER 430 Jazz Improvisation II (6 credits)

Prerequisite: JPER 330. A continuation of JPER 330.
NOTE: Students who have received credit for
MPER 430 may not take this course for credit.
JPER 441 Jazz Vocal Repertoire II (3 credits)
Prerequisite: JPER 341. A continuation of JPER 341.
NOTE: Students who have received credit for this topic under an MPER 498 number may not take this course for credit.

JPER 471** Independent Study I (3 credits) Prerequisite: Second-year standing* or equivalent, and written permission of the Department of Music. A student-designed course of study, approved by an advisor, on an area of jazz performance practice. When appropriate, the study may include a performance.
*66 or fewer credits remaining in degree program.
**Students may count a maximum of nine credits in independent studies towards their degree program.

JPER 472* Independent Study II (3 credits)
Prerequisite: JPER 471 and written permission of the Department of Music. A student repeating JPER 471 registers for JPER 472 for credit.
*Students may count a maximum of nine credits in independent studies towards their degree program.

JPER 498 Special Topics in Jazz Performance (3 credits) Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced study of a selected area not available in other courses in jazz performance.

## JPER 499 Special Topics in Jazz Performance ( 6 credits)

 Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced study of a selected area not available in other courses in jazz performance.
## Music History:

MHIS 200 Music History and Society (6 credits)
A survey of musical styles in their social context, from pre-history to the present day. While emphasis is on the mainstream of the Western tradition, attention is also given to folk, popular, and jazz styles, as well as to the music of other cultures. NOTE A/See §200.3

MHIS 301 Medieval and Renaissance Music (3 credits)
Prerequisite: MHIS 200; INMS 209, 250. The
development of the basic patterns of Western music is traced through the Middle Ages. The resulting musical styles from the mid-fifteenth to the end of the sixteenth century are examined in the context of the cultural changes which shaped the humanistic age.
NOTE: Students who have received credit for MHIS 311 or 312 may not take this course for credit.

## MHIS 302 Music of the Baroque

 (3 credits)Prerequisite: MHIS 200; INMS 209, 250.
Representative works from the early seventeenth to the mid-eighteenth century. The evolution of "common practice" is traced in the forms, styles, and performance practices of the great masters and schools.

## MHIS 303 Classical and Early Romantic Music (3 credits)

Prerequisite: MHIS 200; INMS 209, 250. A study of late eighteenth- and early nineteenth-century music. Representative works will be studied from the late Rococo, through the age of Haydn, Mozart, and Beethoven, and into the early Romantic style of Schubert.

## MHIS 304 Romanticism in Music

 (3 credits)Prerequisite: MHIS 200; INMS 209, 250. A study of the music of the nineteenth and early twentieth century. Representative works, styles and performance practices are studied as expressions of the romantic consciousness.

## MHIS 305 Music from the Post-Romantic to the Present ( 3 credits)

Prerequisite: MHIS 200; INMS 209, 250. A study of music from the early twentieth century to the present. The roots of current trends in music are followed through their growth into the widely diverse styles of today.

MHIS 314 Jazz History (3 credits)
Prerequisite: MHIS 200. A study of the historical developments and the personalities that contributed to the evolution of jazz styles.

## MHIS $315 \quad$ Women in Music History (3 credits)

Prerequisite: Second-year standing* or written permission of the Department of Music. A study of women's contribution to music and the perception of women's roles in music history. This course explores both the historic and current situation of women in music through discussion of women's participation in musical life and the ways women are depicted in music. Topics are not limited to the Western art tradition only, but range widely through other cultures, raising issues such as ritual and lament, spirituality, power, and social class. Readings, listening, guests, and the student's own experiences complement the lectures and discussions. NOTE: Students who have received credit for this topic under an MHIS 498 number may not
take this course for credit. *66 or fewer credits remaining in degree program.

MHIS 471* Independent Study I (3 credits) Prerequisite: Written permission of the Department of Music. A student-designed course of study that focuses on an approved area(s) of music history and/or related disciplines, and involves consultation with an adviser.
NOTE C/See §200.3
*Students may count a maximum of nine credits in independent studies towards their degree program.

MHIS 472* Independent Study II (3 credits)
Prerequisite: Written permission of the Department of Music. A student repeating MHIS 471 registers for MHIS 472 for credit. *Students may count a maximum of nine credits in independent studies towards their degree program.

## MHIS 498 Special Topics in Music History (3 credits)

Prerequisite: Twelve credits in Music and written permission of the Department of Music. A study of a selected period, area, or contribution. In a given year, the study may examine any significant aspect of Western, non-Western, or other musics. NOTE C/See §200.3

## Music in Education:

## MINE 301 Music for Classroom Use I

 (3 credits)Prerequisite: Enrolment in the Specialization in Early Childhood Education, Major in Child Studies, or written permission of the Department of Music. This course is designed to give the student a working knowledge of contemporary techniques of group instruction in music. At least one established or experimental method is covered in some depth: for example, Orff, Kodaly, Dalcroze, Martentot, Schafer, Dennis. While the main emphasis is on the cultivation of musicality in the preschool and elementary school child, the implications for music education in general are also explored. Classroom work includes opportunities for demonstration and practice teaching.
NOTE A/See §200.3

## Music Performance Studies:

MPER 201 Orchestra I (3 credits)
Students enrolled in this course participate in the Concordia Orchestra
NOTE: This is a full-year course.

## MPER 231 Choir I (3 credits)

Students enrolled in this course participate in a Concordia choir.
NOTE A/See §200.3
NOTE: This is a full-year course.
NOTE: Students who have received credit for
MPER 221 may not take this course for credit.

MPER 301 Orchestra II (3 credits)
Prerequisite: MPER 201. A continuation of MPER 201.
NOTE A/See §200.3
NOTE: This is a full-year course.
NOTE: Students who have received credit for this course as MPER 498 or MPER 300 may not take this course for credit.

MPER 321 Chamber Ensemble I (3 credits) A study, through performance, of selected works from a broad range of repertoires. The works studied are determined by class needs and the particular skills of each student. Participation in public performances is required.
NOTE A/See §200.3
NOTE: This is a full-year course.

## MPER 322 Chamber Ensemble II

 (3 credits)Prerequisite: MPER 321. A continuation of MPER 321. NOTE A/See §200.3
NOTE: This is a full-year course.

## MPER 331 Classical Vocal Repertoire I

 (3 credits)Prerequisite: MUSI 200; MUSI 231 in voice previously or concurrently. A chronological study of the repertoire available to the solo singer. Vocal repertoire from the late Renaissance to the present is examined and performed by students. This seminar/workshop is based on a bibliography of selected readings, covering such topics as stylistic features, treatment of poetry and text, recital preparation, programming, vocal ornamentation, and recitative
NOTE: This is a full-year course.
NOTE: Students who have received credit for this topic under an MPER 498 number may not take this course for credit.

## MPER 332 Choir II (3 credits)

Prerequisite: MPER 231. A continuation of MPER 231. NOTE A/See §200.3
NOTE: This is a full-year course.
NOTE: Students who have received credit for this course as MPER 498 or MPER 420 may not take this course for credit.

## MPER 370 Musical Performance Skills I

 (6 credits)Prerequisite: MUSI 200; INMS 209. A seminar/ workshop on specific problems in learning, teaching, and developing musical performance skills. Included is the analysis and organization of practice technique, reading, memory, performance practices, style, interpretation, accompaniment, and recital preparation. Particular attention is given to the integration of skill with musical understanding.
NOTE A/See §200.3

## MPER 390 Advanced Private Study I

 (6 credits)Prerequisite: MUSI 230 or MUSI 231 and 232; enrolment in the Specialization in Music Performance Studies; written permission of the Department of Music. This course offers intensive vocal
or instrumental instruction for students specializing in performance. A juried examination is required. NOTE A/See §200.3
NOTE: Students are required to bear part of the cost of private lessons.
NOTE: Students who have received credit for MUSI 330 may not take this course for credit.

## MPER 398 Special Topics in Music

 Performance (3 credits)Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in music performance.

## MPER 399 Special Topics in Music

 Performance ( 6 credits)Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in music performance.

MPER 401 Orchestra III (3 credits)
Prerequisite: MPER 301. A continuation of MPER 301. NOTE A/See §200.3
NOTE: This is a full-year course.
NOTE: Students who have received credit for this course as MPER 498 or MPER 400 may not take this course for credit.

## MPER 421 Chamber Ensemble III

 (3 credits)Prerequisite: MPER 322. A continuation of MPER 322. NOTE A/See §200.3
NOTE: This is a full-year course.

## MPER 422 Chamber Ensemble IV

 (3 credits)Prerequisite: MPER 421. A continuation of MPER 421. NOTE A/See §200.3
NOTE: This is a full-year course.

## MPER 431 Classical Vocal Repertoire II (3 credits)

Prerequisite: MPER 331. A continuation of MPER 331.
NOTE: This is a full-year course.
NOTE: Students who have received credit for this topic under an MPER 498 number may not take this course for credit.

MPER 432 Choir III (3 credits)
Prerequisite: MPER 331. A continuation of MPER 331. NOTE A/See §200.3
NOTE: This is a full-year course.
NOTE: Students who have received credit for this course as MPER 498 or MPER 420 may not take this course for credit.

## MPER 441 Performance Practice/

 Documentation ( 3 credits)Prerequisite: Written permission of the Department of Music. A study of historical sources applied directly to performance. Topics covered include ornamentation, improvisation, figured bass, "The Doctrine of the Affections", early notation, and bibliography.

## MPER 442 Performance Practice/

 Documentation (3 credits)Prerequisite: MPER 441. A continuation of MPER 441.

MPER 470 Musical Performance Skills II ( 6 credits)
Prerequisite: MPER 370. A continuation of MPER 370. NOTE A/See §200.3

MPER 471* Independent Study I (3 credits)
Prerequisite: Written permission of the Department of Music. A student-designed course of study that focuses on an approved area(s) of performance practice, performance theory/analysis, pedagogy, and/or related disciplines, and involves consultation with an adviser. When appropriate, the study may include a demonstration/performance.

## NOTE C/See §200.3

*Students may count a maximum of nine credits in independent studies towards their degree program.

MPER 472* Independent Study II (3 credits)
Prerequisite: Written permission of the Department of Music. A student repeating MPER 471 registers for MPER 472 for credit.
*Students may count a maximum of nine credits in independent studies towards their degree program.

## MPER 490 Advanced Private Study II

 ( 6 credits)Prerequisite: MUSI 330, or MUSI 331 and 332, or MPER 390; enrolment in the Specialization in Music Performance Studies; third-year standing*; written permission of the Department of Music. A continuation of MPER 390. An approved public recital may be substituted for the juried examination.
NOTE A/See §200.3
NOTE: Students are required to bear part of the cost of private lessons.
*33 or fewer credits remaining in degree program.

## MPER 498 Special Topics in Music Performance (3 credits)

Prerequisite: Written permission of the Department of Music. A seminar/workshop in performance. Selected problems in the development of performance skills. The areas covered are, whenever possible, determined by the specific interests of the students. Topics in any given year may include technique, practice, style, interpretation, accompaniment, ensemble, teaching children, the adult student.
NOTE A,C/See §200.3

## MPER 499 Special Topics in Music Performance ( 6 credits)

Prerequisite: Written permission of the Department of Music. A seminar/workshop in performance. Selected problems in the development of performance skills. The areas covered are, whenever possible, determined by the specific interests of the students. Topics, in any given year, may include technique, practice, style, interpretation, accompaniment, ensemble, teaching children, the adult student.
NOTE A,C/See §200.3

### 81.110 smounats

| Faculty | Chair <br> PENELOPE COUSINEAU-LEVINE, <br> Associate Professor <br> Professors <br> ANDREW DUTKEWYCH <br> LEOPOLD PLOTEK <br> MARION WAGSCHAL <br> IRENE WHITTOME <br> Associate Professors <br> GISELE AMANTEA <br> RAYMONDE APRIL <br> INGRID BACHMANN <br> THÉRÈSE CHABOT <br> TIM CLARK <br> A. LUNT EVERGON <br> JUDY GARFIN <br> TREVOR GOULD | LYNN HUGHES <br> DANICA JOJICH <br> CHERYL KOLAK-DUDEK <br> WOLFGANG KROL <br> BARBARA LAYNE <br> DAVID MOORE <br> FRANÇOIS MORELLI <br> LEILA SUJIR <br> KATHERINE TWEEDIE <br> JANET WERNER <br> Assistant Professors <br> SHAWN BAILEY <br> YVES BILODEAU <br> GENEVIEVE CADIEUX <br> DAVID ELLIOTT <br> ANNIE MARTIN <br> FRANCINE POTVIN |
| :---: | :---: | :---: |
| Location | Sir George Williams Campus Visual Arts Building, Room: VA 236 (514) 848-4262/4263 |  |
| Department Objectives | The Department of Studio Arts offers programs that emphasize the importance of practical work with practising artists. Through a series of courses in ceramics, drawing, fibres, painting, photography, print media, and sculpture, students increase their awareness of what constitutes creativity and understanding of the aesthetic and intellectual aspects of art today. In addition, the Department offers a program in Interdisciplinary Studies for students whose work extends beyond the boundaries of traditional disciplines in the Fine Arts, as well as a program in Women and the Fine Arts, which allows students to complete interdisciplinary work associated with the issue of gender in the arts. |  |
|  | Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with $\S 81.20$. <br> The superscript indicates credit value. |  |
| 81.110 .1 | STUDIO ART |  |
| Program Objective | The Major in Studio Arts offers students the freedom for exploration while still developing proficiency within a disciplinary core. The program encourages the cross-referencing of different creative traditions within a solid, historical, theoretical and studio foundation. Its primary objective is to give students the choice to define their own needs in tailoring an individualized program of studies within open parameters. Students are encouraged to choose among a series of studio art electives and progressively establish their concentration or concentrations through required higher-level disciplinary courses. While promoting a respect for disciplines, the program stresses diversity and versatility across studio options. <br> Students may select their 48 studio art credits required in any media. There is also a similar range from which students can select 12 credits in Art History. Within these specifications, students may fulfil the requirements of the Major in Studio Art either by specializing in a meduim or combining studios in a number of them. However, students must complete one studio course at the 300 level (intermediate) and meet the 400 level (advanced) in the same discipline to fufil their requirements. |  |

[^4]24 Studio Art electives*
12 Chosen from $300^{6}$ - and $400^{6}$-level courses in a single medium from one of the following disciplines: Ceramics; Drawing; Fibres; Painting; Print Media; Sculpture.
*Studio Art courses offered by the Department of Design Art and the Department of Art Education and Art Therapy may be selected as Studio Art electives, but these credits do not satisfy the 300and 400 -level sequence requirements.

Admission to the
Major in Studio Art

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Studio Art.
All applicants must submit a portfolio of their own work, as well as a letter of intent as part of the admission process. In addition to recommending admission to a program, the Portfolio Evaluation Committee may recommend the completion of either ARTX 250, 260, or 270 as part of a student's program.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
6. Portfolios should include a copy of recent academic record.
7. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
8. Out-of-town applicants may submit photographs and/or slides of their work. Applicants must make arrangements to ensure the return of their portfolios at their own expense.
9. Upon receipt of portfolios, applicants will be given specific dates upon which to retrieve them.
10. It is the responsibility of the applicant to ensure that a portfolio, where required, is submitted to each of his/her program choices, even if these choices are within the same department. Applicants must submit this portfolio to the Department of Studio Arts, Visual Arts Building, Room 237, between March $3-7,2003$ from 9:30 to 11:30 AM and 1:30 to 4:30 PM.

## CERAMICS

Ceramics offers students a unique opportunity to develop the production of individual studio work in
Program a context in which contemporary art-making practice is linked to a rich and diverse material history. Objective A vital program within the Studio Arts Department, courses in Ceramics regularly include specia collaborative projects, field trips and visiting artists. In addition, the Ceramics program can also provide students with an important point of departure for investigating diverse subjects ranging from traditional craft practice to new technology.
Well-equipped studios and scheduled labs afford students the means to develop technical skills and to seek information specific to their needs. Course content at all levels of the program includes seminar discussion pertinent to both students' work and concerns related to the current practice of ceramics. At an advanced level and in consultation with an adviser, students in Ceramics have the opportunity to pursue independent-study courses.

| Program | 60 | BFA Major in Ceramics |
| :---: | :---: | :---: |
|  | 30 | CERA $230{ }^{6}, 330^{6}, 430^{6}$; SCUL $465^{6}$; DRAW $200^{6}$ |
|  | 6 | ARTH $264^{3}, 350^{3}$ |
|  | 6 | Chosen from Art History electives; ARTT electives; ART $261{ }^{6}$ or $460^{6}$ |
|  | 6 | SCUL 200 ${ }^{6}$; FBRS $240^{6}, 260^{6}, 370^{6}$ |
|  | 6 | Electives from Ceramics, Fibres, or Sculpture |
|  | 6 |  |
|  | *Reco | mmended to be taken in the first year. |

Admission to the Major in Ceramics

Applicants to Ceramics may apply to enter directly into the Major in Ceramics, or enter the Major in Studio Art with the intention of transferring upon completion of the first year.
In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Ceramics.
All applicants must submit a portfolio as part of the admission process.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit photographs and/or slides of their work. Applicants must make arrangements to ensure the return of their portfolios at their own expense.
8. Portfolios must consist of approximately $50 \%$ three-dimensional work and include work in the area to which the student is applying.
9. Upon receipt of portfolios, applicants will be given specific dates upon which to retrieve them.
10. It is the responsibility of the applicant to ensure that a portfolio, where required, is submitted to each of his/her program choices, even if these choices are within the same department.
11. Portfolios must be submitted to the Department of Studio Arts between March 3-7, 2003 from 9:30 to 11:30 Am and 1:30 to 4:30 PM.
Examples of three-dimensional work should include work in at least two mediums, and should demonstrate creative ability. The two-dimensional work should demonstrate an ability to draw, compose, and use colour imaginatively and creatively.

### 81.110.3 <br> FIBRES

Fibres is a cross-media program of study that explores the relationship of materials to culture. Program Informed by discourses of post-modernism, feminism, and traditional aesthetics, the Fibres program Objective offers an opportunity for intensive study, both practical and theoretical, of the art, technology and history of textiles. Such creative and critical investigation, allied with technical proficiency, provides the base students need to develop as young artists.
Courses are available at all levels, ranging from beginner classes to independent study for advanced students wishing to focus on a single project. Students concentrating in other areas of Fine Arts are welcome to take most courses offered in the Fibres area.

| Program | 60 | BFA Major in Fibres |
| :---: | :---: | :---: |
|  | 18 | FBRS $240{ }^{6}, 260^{6}$; SCUL $465^{6}$ |
|  | 6 | FBRS $340^{6}$ or $360^{6}$ |
|  | 6 | FBRS $480^{6}$ |
|  | 6 | ARTH $266{ }^{3}, 352^{3}$ |
|  | 6 | Chosen from Art History electives; ARTT electives; ART $261{ }^{6}$ or $460^{6}$ |
|  | 6 | SCUL 2006; DRAW $200^{6}$; CERA $230^{6}$ |
|  | 6 | Chosen from ARTX $250^{6}, 260^{6}, 270^{6}$ or a Studio Art elective, in consultation with an adviser* |
|  | 6 | Electives from Ceramics, Fibres, or Sculpture |
|  | *Rec | mmended to be taken in the first year. |

Admission to the Major in Fibres

Applicants to Fibres may apply to enter directly into the Major in Fibres, or enter the Major in Studio Art with the intention of transferring upon completion of the first year.
In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Fibres.
All applicants must submit a portfolio as part of the admission process.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit photographs and/or slides of their work. Applicants must make arrangements to ensure the return of their portfolios at their own expense.
8. Portfolios must consist of approximately $50 \%$ three-dimensional work and include work in the area to which the student is applying.
9. Upon receipt of portfolios, applicants will be given specific dates upon which to retrieve them.
10. It is the responsibility of the applicant to ensure that a portfolio, where required, is submitted to each of his/her program choices, even if these choices are within the same department.
11. Portfolios must be submitted to the Department of Studio Arts between March 3-7, 2003 from 9:30 to 11:30 AM and 1:30 to 4:30 PM.
Examples of three-dimensional work should include work in at least two mediums, and should demonstrate creative ability. The two-dimensional work should demonstrate an ability to draw, compose, and use colour imaginatively and creatively.

| 81.110.4 | INTERDISCIPLINARY STUDIES |
| :--- | :--- |
| Program | The Major in Interdisciplinary Studies offers the possibility of working towards the completion of a <br> program that permits the student to investigate and integrate a very wide range of disciplines - <br> music, painting, photography, dance, theatre, sound-based work, drawing, computer imaging, writing <br> as art, performance art, installations, sculpture, fibres, print media, book works, video, and ceramics. <br> In support of this interdisciplinary activity, the Department has established a curricular structure <br> whereby each student, with the assistance of a faculty member, may develop a sequential program <br> of study that allows for both vertical and lateral movements within the visual and performing arts <br> areas. Furthermore, specialized IDYS studio/seminar courses are provided so that students can work <br> together on both individual and collective projects. |


| Program | 60 BFA Major in Interdisciplinary Studies <br> 12 IDYS $200^{6}, 300^{6}$ <br> *30 Credits from the Visual and Performing Arts programs <br> *12 VDEO $300^{6}$ and $350^{6}$, or lecture/seminar credits in the Visual and Performing Arts <br> ${ }^{*} 6$ VDEO $400^{6}$ or SCUL $490^{6}$, or one 400 -level course in the Visual and Performing Arts <br> *These credits are to be chosen with the assistance of an IDYS and/or Performing Art faculty adviser. NOTE: It is recommended that students consider taking up to 12 credits of lecture/seminar courses from the Department of Communication Studies to apply as electives outside Fine Arts. |
| :---: | :---: |
| Admission to the Major in Interdisciplinary Studies | The Interdisciplinary Studies Major has a distinct admission procedure in addition to the normal admission process of Concordia University. All applicants are required to attend an interview and present an audition or portfolio as part of the admission process. Applicants must contact the program office between March 3-7 to arrange their appointments and for detailed information regarding audition/portfolio/interview requirements. Applicants must also submit a letter of intent along with a copy of their academic record directly to the program coordinator at the same time that they submit their completed application to the Office of the Registrar, i.e. prior to March 1. This short letter of intent should summarize the applicant's academic and artistic backgrounds and describe their particular interests and goals in Interdisciplinary Studies within Fine Arts. |
| 81.110 .5 | PAINTING AND DRAWING |
| Program Objective | The Department of Studio Arts provides an in-depth program in Painting and Drawing, combining theoretical, historical, and practical study at all undergraduate levels. The aim is to provide students with a broad foundation on which they can base their own creative contributions. <br> Studio courses, seminars, and independent projects on such varied topics as open media, collage, and women's studies, supplement the core courses on painting and drawing. Recognizing the importance of providing basic skills and knowledge, in an atmosphere of freedom, the program is supported by a large number of faculty and guest artists, exposing students to a full range of approaches to drawing and painting. <br> A graduate program in Painting and Drawing and Open Media is available for further studies. |


|  |  |  |
| :--- | ---: | :--- |
| Program | BFA Major in Painting and Drawing |  |
|  | 12 | DRAW $200^{6}, 300^{6}$ |
| 12 | PTNG $200^{6}, 300^{6}$ |  |
| 12 | Chosen from ART $320^{6}, 420^{6}$; DRAW $420^{6} ;$ PTNG $420^{6}$ |  |
| 6 | Chosen from ARTX $250^{6}, 260^{6}, 270^{6}$ or a Studio Art elective, in consultation with an adviser |  |
| 6 | ARTH $366^{3}$ and $367^{3}$ |  |
| 6 | Studio Art elective (excluding ART, PTNG, and DRAW courses) |  |
| 6 | Chosen from Art History electives (excluding ARTH $433^{6}, 434^{6}$ ); ARTT electives; ART $261^{6}$ or |  |
|  | $460^{6}$, in consultation with an adviser |  |

Admission to the Major in Painting and Drawing

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Painting and Drawing.
All applicants must submit a portfolio of their own work, as well as a letter of intent as part of the admission process.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
6. Portfolios should include a copy of recent academic record.
7. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
8. Out-of-town applicants may submit photographs and/or slides of their work. Applicants must make arrangements to ensure the return of their portfolios at their own expense.
9. Upon receipt of portfolios, applicants will be given specific dates upon which to retrieve them.
10. It is the responsibility of the applicant to ensure that a portfolio, where required, is submitted to each of his/her program choices, even if these choices are within the same department.
11. Portfolios must be accompanied by a letter of intent explaining the applicant's special interests in painting and drawing.
Applicants must bring both their portfolios and their letters of intent to the Department of Studio Arts, Visual Arts Building, Room 237, between March 3-7, 2003 from 9:30 to 11:30 AM and 1:30 to 4:30 PM.


Admission to the Major or Minor in Photography

Applicants are required to submit a completed official Application for Admission form to the Office of the Registrar by March 1.
In addition, all applicants must submit a portfolio, a letter of intent, a photocopy of their most recent academic transcript, and a photocopy of Page 1 of the applicant's General Application Form. The letter of intent should include the following information:

1. A list of all courses and workshops in photography that have been completed (including when and where).
2. A discussion of the context of the portfolio's contents (i.e. when the photos were taken - in a class, on the student's own, etc.)
3. A discussion of the particular area(s) within the field of photography which interest the student. Portfolios must be submitted to the Department of Studio Arts, VA 237, between March 3-7, 2003 from 9:30 to 11:30 AM and 1:30 to 4:30 PM. Contents of the portfolio should consist of 10 to 20 preferably black-and -white photographic images (in recognition of the limited background some applicants have in photography, commercially printed photos are acceptable).
The committee prefers well-edited portfolios which indicate a specific interest or concern of the applicant. It is recognized that applicants may have limited training in the medium, therefore examples of work done in other visual arts media may be submitted to supplement the photographic portfolio.

### 81.110 .7

Program
Objective

## PRINT MEDIA

The Print Media program provides students with a milieu to investigate the meaningful relationships that exist between the technologies of reproduction, individual expression, and contemporary society. Print Media offers multiple venues for student research from intaglio, lithography, and serigraphy to digital and virtual approaches. Experimental, innovative, and critical work is encouraged. Special topics and theory courses provide support for individual aesthetic development and explore the intersections of interdisciplinary practice.
Students in the Print Media program are expected to develop a strong critical understanding of their work and its relationship to contemporary society, as well as develop professional skills and an awareness of the diversity inherent in art practice.

The 60-credit BFA Major in Print Media and the 30-credit Minor in Print Media were first offered in their new form in September 1997.

| Programs | 60 | BFA Major in Print Media |
| :--- | ---: | :--- |
| 36 | Print Media: |  |
| $6-12$ | Credits at the 200 level |  |
| $12-24$ | Credits at the 300 level |  |
| $6-18$ | Credits at the 400 level |  |
| 6 | Studio Art elective credits |  |
| 6 | Fine Arts elective credits |  |
| 6 | Art History elective credits |  |
| 6 | Art History or Art Theory elective credits |  |
|  | Minor in Print Media |  |
| 30 | Print Media: |  |
| 18 |  |  |
| $3-9$ | Credits at the 200 level |  |
| $6-9$ | Credits at the 300 level |  |
| $3-9$ | Credits at the 400 level |  |
| 6 | Studio Art elective credits |  |
| 6 | Fine Arts elective credits |  |

## Admission to the Major or Minor in Print Media

Applicants to Print Media may apply to enter directly into the Major in Print Media or may enter the Major in Studio Art with the intention of transferring upon completion of the first year.
In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major or Minor in Print Media. All applicants must submit a portfolio, as well as a letter of intent, as part of the admission process.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit slides (photographs if slides are not available) of their work. Applicants must make arrangements to ensure the return of their portfolios at their own expense. In addition, for the Major/Minor in Print Media:
8. Portfolios must contain a minimum of 10 works in drawing and/or prints.
9. Upon receipt of portfolios, applicants will be given specific dates upon which to retrieve them.
10. It is the responsibility of the applicant to ensure that a portfolio, where required, is submitted to each of his/her program choices, even if these choices are within the same department.
11. Portfolios must be submitted to the Department of Studio Arts between March 3-7, 2003 from 9:30 to 11:30 AM and 1:30 to 4:30 PM.
81.110 .8

Program
Objective

## SCULPTURE

The Sculpture program offers the opportunity for intensive study, both practical and theoretical, of the art and technology of sculpture. Within the Fine Arts curriculum, these courses help students to explore the relationship between object, material, and space. Such creative investigation, allied with technical proficiency, provides the base students need to develop as young artists.
Courses are available at all levels, ranging from beginner classes to independent study for advanced students wishing to focus on a single project. To enrich their artistic training, students concentrating in other areas of Fine Arts may also take most courses offered in sculpture.

## Program

Admission to the Major in Sculpture

Applicants to Sculpture may apply to enter directly into the Major in Sculpture, or enter the Major in Studio Art with the intention of transferring upon completion of the first year.
In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to Sculpture. All applicants must submit a portfolio as part of the admission process.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works larger than $20 \times 24$ inches ( $50 \times 60$ centimetres) and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit photographs and/or slides of their work. Applicants must make arrangements to ensure the return of their portfolios at their own expense.
8. Portfolios must consist of approximately $50 \%$ three-dimensional work and include work in the area to which the student is applying.
9. Upon receipt of portfolios, applicants will be given specific dates upon which to retrieve them.
10. It is the responsibility of the applicant to ensure that a portfolio, where required, is submitted to each of his/her program choices, even if these choices are within the same department.
11. Portfolios must be submitted to the Department of Studio Arts between March 3-7, 2003 from 9:30 to 11:30 AM and 1:30 to 4:30 PM.
Examples of three-dimensional work should include work in at least two mediums, and should demonstrate creative ability. The two-dimensional work should demonstrate an ability to draw, compose, and use colour imaginatively and creatively.

### 81.110 .9

Program

## WOMEN AND THE FINE ARTS

## 24 Minor in Women and the Fine Arts

WFAR $320^{6}$
WSDB $290^{3}, 291^{3}$
12 Electives in the Faculty of Fine Arts, chosen with the permission of a program adviser

There are no specific procedures required for the Minor in Women and the Fine Arts other than the successful completion of a two-year pre-university cégep program (or equivalent).

## Admis in and the Fine Arts

## Art:

Courses

## ART $417 \quad$ Open Media ( 6 credits)

Prerequisite: Thirty credits in Studio Art; 400-level studio courses concurrently; or written permission of the Department. A seminar encompassing an unlimited range and combination of materials.* The varied nature of this approach invites students to provide their own circumstances for creating work. NOTE A/See §200.3 *Students are required to bear the cost of materials and, when loan arrangements cannot be made through the University, equipment rental.

## ART 420 Materials and Methods of the

 Artist (6 credits)Prerequisite: DRAW 300; PTNG 300 or written permission of the Department. Through a series of special projects in the media of drawing and painting, this course familiarizes the student with some of the historical materials, techniques, and other aspects of the artist's concerns. NOTE: Students who have credit for ART 234 or ARTH 267 or 434 may not take this course for credit.

## ART 460 <br> Analysis of Great Works of Art

 ( 6 credits)A course in art principles. Through the formal analysis of selected masterpieces of painting and sculpture, the student is led to a fuller comprehension of the nature of formal order in the arts. NOTE A/See §200.3

## Art Studio:

## ARTX 250 Visual Language as Content

 ( 6 credits)Prerequisite: Enrolment in a BFA program or written permission from a designated Studio Art adviser. A studio course focusing on visual language as content. Colour and its permutations, line, shape, pattern, texture, and composition are the personal vocabulary of each artist. The claiming of this language is central to an art practice; it will be established through two- and three-dimensional projects which challenge students to explore their capacity to visually articulate their complexity as beings in nature and culture.
NOTE: Students who have received credit for SFAR 250 may not take this course for credit.

## ARTX 260 Integrated Drawing: Intersections (6 credits)

Prerequisite: Enrolment in a BFA program or written permission from a designated Studio Art adviser. A studio course which embraces various attitudes towards drawing. As an alternative approach, students experience the medium from the different perspectives of various disciplines. The course will explore the possibilities of non-traditional materials and strategies for producing drawings. Analogue (narrative) and notation, as well as the notion of aesthetic and non-aesthetic uses of drawing (such as mapping, charting, making diagrams, documenting) will be investigated.
NOTE: Students who have received credit for SFAR 260 may not take this course for credit.

## ARTX 270 Extended Studio Practices

 ( 6 credits)Prerequisite: Enrolment in a BFA program or written permission from a designated Studio Art adviser. A studio course which introduces the diversity of contemporary art practice and theory. Alternative venues, interactive art forms, questions of authorship, the significance of the object/artifact, and perceptions other than visual are among the subjects to be explored.
NOTE: Students who have received credit for SFAR 270 may not take this course for credit.

## ARTX 398 Special Topics in Contemporary Studio Arts Practice (3 credits)

Prerequisite: Enrolment in a BFA program or written permission of the Department. This studio course brings together students with a practice based in any of the studio disciplines, and/or who have been following an interdisciplinary practice, allowing discussion and
exchange on their work in relation to the aspect of art making that this special topic addresses.

## ARTX 399 Special Topics in Contemporary Studio Arts Practice (6 credits)

Prerequisite: Enrolment in a BFA program or written permission of the Department. This studio course brings together students with a practice based in any of the studio disciplines, and/or who have been following an interdisciplinary practice, allowing discussion and exchange on their work in relation to the aspect of art making that this special topic addresses.

## ARTX 480 Integrated Studio in Contemporary Art Practices ( 6 credits)

Prerequisite: 300-level studio course previously and enrolment in a program offered by the Department of Studio Arts, or written permission of the Department. This studio/seminar course will focus on the development of a student's individual studio practice within the context of different disciplinary issues and concerns that will be examined in relationship to contemporary art making. Students will be encouraged to actively engage in the discussion of their studio work and a variety of theoretical readings.

## Art Theory:

## ARTT 398 Special Topics in Studio Arts:

 Ideas and Issues (3 credits)Prerequisite: Enrolment in a BFA program or written permission of the Department. This seminar course provides the opportunity for students of various studio practices to discuss changing issues in theory/practice. Visual material, directed readings, exhibition visits, and invited speakers will be determined by the special topic.

## ARTT 399 Special Topics in Studio Arts: <br> Ideas and Issues ( 6 credits)

Prerequisite: Enrolment in a BFA program or written permission of the Department. This seminar course provides the opportunity for students of various studio practices to discuss changing issues in theory/practice. Visual material, directed readings, exhibition visits, and invited speakers will be determined by the special topic.

## Ceramics:

CERA 230 Ceramics I ( 6 credits) Prerequisite: Enrolment in a BFA program or written permission of the Department. An introduction to clay as an art medium employing the various techniques of forming, shaping, and decorating for firing and glazing.
NOTE A/See §200.3
CERA 330 Ceramics II ( 6 credits)
Prerequisite: CERA 230 or permission of the coordinator. An advanced course in technical and historical research in various ceramic
processes with an emphasis on glazes and the use of different clay bodies. NOTE A/See §200.3

## CERA 398 Special Topics in Ceramics

 (3 credits)Prerequisite: Third-year standing* and written permission of the Department. A workshop/ seminar, providing an opportunity for the study of specialized aspects of ceramics.
NOTE C/See §200.3
*fewer than 33 credits remaining in the degree program.

## CERA 399 Special Topics in Ceramics (6 credits)

Prerequisite: Written permission of the Department. A workshop/seminar course providing an opportunity for the study of specialized aspects in ceramics. NOTE C/See §200.3

## CERA 430 Ceramics III ( 6 credits)

Prerequisite: CERA 330 or permission of the coordinator. The development of a body of personal work and a refinement of specific problems in clay.

CERA 450 Independent Study ( 6 credits) Prerequisite: Third-year standing*; CERA 430, previously or concurrently; and written permission of the Department. This workshop provides the opportunity for a limited number of students to independently pursue advanced studies in ceramics. NOTE A/See §200.3
*fewer than 33 credits remaining in the degree program.

## Drawing:

DRAW 200 Drawing I ( 6 credits)
Prerequisite: Enrolment in a BFA program or written permission of the Department. An exploration of drawing as a means of expression. Various media are employed to examine and express form, space, figurative, and other graphic images. Drawing from observation, imagination, and memory is included. NOTE A/See §200.3

DRAW 300 Drawing II ( 6 credits)
Prerequisite: DRAW 200. A drawing course in which various media and forms of expression are explored at the more advanced level. Lectures and studio periods. NOTE A/See §200.3

## DRAW 399 Special Topics in Drawing

 (6 credits)Prerequisite: DRAW 200; written permission of the Department. A studio course which provides an opportunity for the study of more specialized aspects of drawing.

DRAW 400 Drawing III (6 credits)
Prerequisite: DRAW 300. Continuation of DRAW 300. NOTE A/See §200.3

## DRAW 420 Seminar/Workshop in Drawing (6 credits)

Prerequisite: ART 320 or written permission of
the Department. An advanced studio in drawing having its principal emphasis in studio practice, but developing further the theoretical concepts introduced in ART 320.

## DRAW 450 Advanced Studio in Drawing

 (6 credits)Prerequisite: DRAW 400. A continuation of DRAW 400.

DRAW 470 Independent Study ( 6 credits) Prerequisite: 400-level DRAW previously or concurrently, and written permission of the Department. A course of independent study in which the advanced student explores a specific area of drawing. NOTE A/See $\$ 200.3$

## DRAW 498 Special Topics in Drawing

 (3 credits)Prerequisite: Third-year standing* and written permission of the Department. A course for advanced students which provides an opportunity for the study of more specialized areas in drawing.

## NOTE C/See §200.3

*fewer than 33 credits remaining in degree program.

## DRAW 499 Special Topics in Drawing

 (6 credits)Prerequisite: Third-year standing* and written permission of the Department. A course for advanced students which provides an opportunity for the study of more specialized areas in drawing.
NOTE C/See §200.3
*fewer than 33 credits remaining in degree program.

## Electronic Arts:

## EART 300 Interactivity Studio in

 Electronic Arts (6 credits)Prerequisite: Second-year standing* and enrolment in a program offered by the Department of Studio Arts, or written permission of the Department. This studio course focuses on interactive technologies in relation to contemporary art practices (installation, performance, kinetic sculpture, and others). An interdisciplinary and cybernetic approach to media control and expression (such as sound, lighting, still images, video) using computers and electronics will allow students from different options to pursue individual or team work.
*66 or fewer credits remaining in degree program.

## EART 398 Special Topics in Electronic <br> Arts (3 credits)

Prerequisite: Second-year standing* and enrolment in a program offered by the Department of Studio Arts, or written permission of the Department. This studio course provides an opportunity for the study of specialized aspects of electronic arts.
*66 or fewer credits remaining in degree program.

EART 399 Special Topics in Electronic
Arts (6 credits)
Prerequisite: Second-year standing* and enrolment in a program offered by the Department of Studio Arts, or written permission of the Department. This studio course provides an opportunity for the study of specialized aspects of electronic arts.
*66 or fewer credits remaining in degree program.

## EART 470

## Independent Study in

 Electronic Arts (6 credits)Prerequisite: Third-year standing* and enrolment in a program offered by the Department of Studio Arts, and written permission of the Department. A course of independent study in which the student explores a specific area of electronic arts.
*33 or fewer credits remaining in degree program.

## EART 471 Independent Study in

 Electronic Arts I (3 credits)Prerequisite: Third-year standing* and enrolment in a program offered by the Department of Studio Arts, and written permission of the Department. A course of independent study in which the student explores a specific area of electronic arts.
*33 or fewer credits remaining in degree program.

## EART 472 Independent Study in

 Electronic Arts II (3 credits)Prerequisite: EART 471 and written permission of the Department. A course of independent study in which the student explores a specific area of electronic arts.

## Fibres:

FBRS 240 Fibre Structures I ( 6 credits) Prerequisite: Enrolment in a BFA program or written permission of the Department. An introductory course in which students explore the expressive potential of various materials and processes of fibre structures such as loom weaving, feltmaking, basketry, surface applications, and other experimental constructions. NOTE A/See §200.3

FBRS 260 Textile Printing and Dyeing I ( 6 credits)
Prerequisite: Enrolment in a BFA program or written permission of the Department. An introductory course in which students explore the creative potential of printing, painting, dyeing, resist work, and construction with fabric. NOTE A/See §200.3

FBRS 340 Fibre Structures II ( 6 credits) Prerequisite: FBRS 240 or permission of the coordinator. An intermediate level course which emphasizes the visual and conceptual development of the student in fibre media. Complex woven structures, painting and dyeing, fibre sculpture, and other experimental approaches are explored.

FBRS 360 Textile Printing and Dyeing II (6 credits)
Prerequisite: FBRS 260 or permission of the coordinator. An intermediate level course in textile printing and dyeing with an emphasis on content. Students investigate traditional and non-traditional approaches such as resist work, discharge, and photo processes.

## FBRS $370 \quad$ Papermaking ( 6 credits)

Prerequisite: Eighteen credits in Studio Art, or permission of the coordinator. The making of paper and its use as a medium of expression. The scope of investigation ranges from surface and image to embossing, casting, and threedimensional construction.

## FBRS 398 Special Topics in Fibres (3 credits)

Prerequisite: Written permission of the Department. A workshop/seminar course providing an opportunity for study of specialized aspects of fibres. NOTE C/See §200.3

## FBRS 399 Special Topics in Fibres

 ( 6 credits)Prerequisite: Written permission of the Department. A workshop/seminar course providing an opportunity for the study of specialized aspects in fibres. NOTE C/See §200.3

FBRS 450 Independent Study ( 6 credits) Prerequisite: Third-year standing*; FBRS 480, previously or concurrently; and written permission of the Department. This workshop provides the opportunity for a limited number of students to independently pursue advanced studies in Fibres. *fewer than 33 credits remaining in the degree program.

FBRS 480 Advanced Fibres ( 6 credits) Prerequisite: FBRS 340 or 360 , or permission of the coordinator. An advanced level course in which students create a personal body or work, refine technical expertise, and develop a visual and critical language related to fibres and textiles. NOTE C/See §200.3

## Interdisciplinary Studies:

IDYS 200 Studio Seminar in Interdisciplinary Studies I (6 credits)
Prerequisite: Enrolment in the Major in Interdisciplinary Studies or written permission of the Interdisciplinary Studies program coordinator. A studio/seminar course providing the basis for an interwoven theory and practice in an interdisciplinary context. An art practice is developed through a critical approach to materials, issues, and artmaking. Required readings pertinent to current issues are discussed in relation to studio production.
NOTE: With permission of the appropriate Department Chair, this course may satisfy a studio or seminar elective requirement in a
student's degree program. Students are required to bear the costs of materials and processing, if applicable.

IDYS 300 Studio Seminar in Interdisciplinary Studies II (6 credits)
Prerequisite: Interdisciplinary Studies 200, and second-year standing* in the Major in Interdisciplinary Studies, or written permission of the Interdisciplinary Studies program coordinator. A practice-oriented seminar focusing on topics central to the interdisciplinary study of art in contemporary social and cultural contexts. Issues within areas such as history, gender, race, and technology are considered within the context of varying perspectives. Students' studio production is challenged within a contemporary interdisciplinary environment.
NOTE: With permission of the appropriate Department Chair, this course may satisfy a studio or seminar elective requirement in a student's degree program. Students are required to bear the costs of materials and processing, if applicable.
*66 or fewer credits remaining in degree program.

## IDYS 490 Independent Study ( 6 credits)

 Prerequisite: Third-year standing* and written permission of the Interdisciplinary Studies program coordinator. A course of independent study in which the student explores a specific interdisciplinary project.*33 or fewer credits remaining in degree program.
IDYS 491 Independent Study I (3 credits)
Prerequisite: Third-year standing* and written permission of the Interdisciplinary Studies program coordinator. A course of independent study in which the student explores a specific interdisciplinary project.
NOTE C/See §200.3
*33 or fewer credits remaining in degree program.
IDYS 492 Independent Study II (3 credits)
Prerequisite: IDYS 491 and written permission of the Interdisciplinary Studies program coordinator. A student who has completed IDYS 491 may register under 492.

## IDYS 498 Special Topics in Interdisciplinary Study (3 credits)

Prerequisite: Written permission of the Interdisciplinary Studies program coordinator. An intensive study of specific aspects of interdisciplinary study.

IDYS 499 Special Topics in Interdisciplinary Study (6 credits)
Prerequisite: Written permission of the Interdisciplinary Studies program coordinator. An intensive study of specific aspects of interdisciplinary study.

## Painting:

PTNG 200 Painting I (6 credits)
Prerequisite: Enrolment in a BFA program or written permission of the Department. An
exploration of painting, colour, style, image, visual skills, and the technology of painting materials. NOTE A/See §200.3

PTNG 300 Painting II ( 6 credits)
Prerequisite: PTNG 200. A course in which various media and forms of expression are explored at the more advanced level.
NOTE A/See §200.3

## PTNG 399 Special Topics in Painting

 (6 credits)Prerequisite: PTNG 200; written permission of the Department. A studio course which provides an opportunity for the study of more specialized aspects of painting.

PTNG $400 \quad$ Painting III ( 6 credits)
Prerequisite: PTNG 300. A continuation of PTNG 300. NOTE A/See §200.3

PTNG 420 Seminar/Workshop in Painting ( 6 credits)
Prerequisite: ART 320 or written permission of the Department. An advanced studio in painting having its principal emphasis in studio practice, but developing further the theoretical concepts introduced in ART 320. NOTE A/See §200.3

PTNG 430 Women and Painting ( 6 credits) Prerequisite: PTNG 200 or written permission of the Department. A studio/seminar course in which students are encouraged to explore their world in painting and consider their practice from the point of view of women's experience, individually and collectively.
NOTE A/See §200.3
PTNG 440 Collage ( 6 credits)
Prerequisite: Written permission of the Department. An exploration of collage as a means of expression evolving from the historical and artistic traditions of painting and drawing. NOTE A/See §200.3

## PTNG 450 Advanced Studio in Painting

 ( 6 credits)Prerequisite: PTNG 400. A continuation of PTNG 400. NOTE A/See §200.3

PTNG 470 Independent Study ( 6 credits) Prerequisite: 400 -level PTNG previously or concurrently, and written permission of the Department. A course of independent study in which the advanced student explores a specific area in painting. NOTE A/See $\$ 200.3$

## PTNG 498 Special Topics in Painting

 (3 credits)Prerequisite: Third-year standing* and written permission of the Department. A course for advanced students which provides an opportunity for the study of more specialized areas in painting. NOTE C/See §200.3
*fewer than 33 credits remaining in degree program.

## PTNG 499

Special Topics in Painting (6 credits)
Prerequisite: Third-year standing* and written permission of the Department. A course for advanced students which provides an opportunity for the study of more specialized areas in painting.
NOTE C/See §200.3
*fewer than 33 credits remaining in degree program.

## Photography

## PHOT 200 Foundations in Photographic

 Vision: Theory and Practice I ( 6 credits)Prerequisite: Enrolment in the Major or Minor in Photography or second-year standing* in a Specialization/Major in the Faculty of Fine Arts**. An exploration of the aesthetics of photography through the rapid accumulation of images in the field and through the study of contact sheets and prints in the studio. Emphasis is placed upon developing an ability to see photographically. Technical procedures, including optical functions and the camera, photographic chemistry, film and paper processing are taught. NOTE A/See §200.3
*fewer than 66 credits remaining in degree program.
${ }^{* *}$ Students enrolled in a Specialization/Major in Performing Arts or the Major in Interdisciplinary
Studies must obtain written permission of the Department.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

## PHOT 221 Colour Photography I

 (3 credits)Prerequisite: PHOT 200 and 250 previously or concurrently, and enrolment in the Major or Minor in Photography, or written permission of the Department. A studio course introducing the use of colour as another photographic process, parallel to black and white production and practice taught in PHOT 200. It investigates the particular technical and creative aspects. Students learn practical methods of colour printing using the positive-negative process and are encouraged to use these techniques in a self-expressive manner. A brief historical survey of colour processes is presented.
NOTE: Students who have received credit for PHOT 320 or 321 may not take this course for credit.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

## PHOT 250 Development of Photographic

 Traditions ( 6 credits)Prerequisite: Enrolment in the Major or Minor in Photography, or second-year standing* in a Specialization/Major in the Faculty of Fine Arts, or written permission of the Department. A course
tracing the development of photography from its earliest appearance to the present. Issues are dealt with historically and thematically and include ideas about photographs as documents, means of social criticism, forms of personal expression, and sequential imagery. Reference is made to the relationship between photographs and other forms of art, and to the social or political contexts which influenced its development. *fewer than 66 credits remaining in degree program.

## PHOT 300 Photographic Vision: Theory

 and Practice II (6 credits) Prerequisite: PHOT 200 and 250 and enrolment in the Major or Minor in Photography, or written permission of the Department. A course in which the student is encouraged to refine and enhance a photographic vision. The course focuses on individual exploration in a context of exchange, discussion, and research. A written proposal in the second semester leads to the completion of a final portfolio.NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

## PHOT 311 Large Format Photography I (3 credits)

Prerequisite: PHOT 200 and 250 and enrolment in the Major or Minor in Photography, or written permission of the Department. A studio course introducing large format photography, its techniques and application. Field trips and demonstrations cover the basics of view camera operation, light metering, sheet film exposure, development, and advanced printing. Assignments based on traditional genres encourage ease with all aspects of large format use and their personal applications.
NOTE: Students who have received credit for PHOT 310 may not take this course for credit. NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

## PHOT 312 Large Format Photography II

 (3 credits)Prerequisite: PHOT 200, 250, 311 and enrolment in the Major or Minor in Photography, or written permission of the Department. A studio course directed towards the development of an individual approach to view camera photography. Various uses of advanced techniques are also discussed. Emphasis is put on the development of a coherent portfolio of prints expressing personal concerns.
NOTE: Students who have received credit for PHOT 310 may not take this course for credit. NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

## PHOT 322 Colour Photography II

 (3 credits)Prerequisite: PHOT 200, 250; PHOT 221 or 321 ; and enrolment in the Major or Minor in

Photography, or written permission of the Department. A continuation of PHOT 221, this course explores further techniques in colour photography and advanced colour printing. Aesthetic issues such as changing attitudes towards the colour medium and its role in documentary work are discussed. A final portfolio reflects the students' personal approach to colour photography.
NOTE: Students who have received credit for PHOT 320 may not take this course for credit. NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 331 Digital Photography I (3 credits)
Prerequisite: PHOT 200; PHOT 221 previously or concurrently; and enrolment in the Major in Photography, or written permission of the Department. An introductory studio course investigating the technical and creative aspects of digital photography. This course provides students with an understanding of the digital image and a practical application of the tools within their personal approach to photography. Students will explore the production of digital photographs, emphasizing the manipulation of images with software and the preparation for different formats. Issues related to the use of digital imagery within the larger context of photography will be explored.
NOTE: Students who have received credit for this topic under a PHOT 498 number may not take this course for credit.
NOTE: Students are required to bear the cost of removable storage devices, printing, and other materials.

## PHOT 332 Digital Photography II

 (3 credits)Prerequisite: PHOT 331 and enrolment in the Major or Minor in Photography, or written permission of the Department. This advanced course expands on the basic control skills and creative aspects of digital technology by implementing personal approaches to the use of technology. Emphasis is on the creative development and advanced use of technology for the production of a portfolio.
NOTE: Students who have received credit for this topic under a PHOT 498 number may not take this course for credit.
NOTE: Students are required to bear the cost of removable storage devices, printing, and other materials.

## PHOT 341 Introduction to Contemporary Issues in Photography

 (3 credits)Prerequisite: PHOT 250 and enrolment in the Major or Minor in Photography, or written permission of the Department. A seminar course exploring various theoretical approaches to contemporary photographic practice. Readings will form the basis of discussions, which will be complemented by lectures, guests, visits to exhibitions, and other relevant activities. Varied
critical approaches will be introduced. Students are expected to produce short essays and complete one major research paper. Required texts will vary from year to year.
NOTE: Students who have received credit for PHOT 340 may not take this course for credit.

## PHOT 398 Special Topics in Photography

 (3 credits)Prerequisite: Written permission of the Department. An opportunity for the study of limited and more specialized aspects of photography.
NOTE C/See §200.3

## PHOT 399 Special Topics in Photography

 ( 6 credits)Prerequisite: Written permission of the Department. An opportunity for the study of limited and more specialized aspects of photography.
NOTE C/See §200.3

## PHOT 400 Advanced Workshop in Photography ( 6 credits)

Prerequisite: PHOT 300 and third-year standing* in the Major in Photography, or written permission of the Department. A studio course in which students pursue one or more extended photographic projects in black and white and/or colour. Topics related to contemporary photography are presented in a seminar fashion. NOTE: Each student's personal work is evaluated by a jury of photography faculty twice during the year.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
*fewer than 33 credits remaining in degree program.

## PHOT 470 Professional Internship

 (6 credits)Prerequisite: Third-year standing* in the Major in Photography and written permission of the Department. A student wishing to work in an apprentice capacity with an established photographic artist, or wishing pursue research in photographic criticism, museum work, publication, or other related endeavours may apply for academic credit. The internship will be carried out under the joint supervision of a qualified professional (from within or without the University) and a full-time Photography faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the internship is undertaken. This agreement should state clearly the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.
*fewer than 33 credits remaining in degree program.

PHOT 471 Professional Internship I (3 credits)
Prerequisite: Third-year standing* in the Major
in Photography and written permission of the Department. A student wishing to work in an apprentice capacity with an established photographic artist, or wishing to pursue research in photographic criticism, museum work, publication, or other related endeavours may apply for academic credit. The internship will be carried out under the joint supervision of a qualified professional (from within or without the University) and a full-time Photography faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the internship is undertaken. This agreement should state clearly the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.
*fewer than 33 credits remaining in degree program.

## PHOT 472 Professional Internship II

 (3 credits)Prerequisite: Third-year standing* in the Major in Photography and written permission of the Department. Students who wish additional internships in a professional milieu may take this course.
*fewer than 33 credits remaining in degree program.

PHOT 481 Independent Study I (3 credits)
Prerequisite: Written permission of the Department. A course of independent study in which the student explores a specific area of photography.

PHOT 482 Independent Study II (3 credits) Prerequisite: PHOT 481 and written permission of the Department. A student repeating PHOT 481 registers for credit under PHOT 482.

PHOT 498 Special Topics in Photography (3 credits)
Prerequisite: Written permission of the Department. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of photography.

## PHOT 499 Special Topics in Photography

 ( 6 credits)Prerequisite: Written permission of the Department. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of photography.

## Print Media:

PRIN 211 Intaglio I (3 credits)
Prerequisite: Enrolment in a BFA program or written permission of the Department. An introductory studio course in intaglio techniques with an emphasis on creative imagery. This course covers traditional acid and non-acid techniques including drypoint, power engraving tools,
aquatint, digital imaging, light-sensitive plates and methods of printing. Lectures and critiques will focus on theoretical, historical, and aesthetic issues in contemporary print media.
NOTE: Students who have received credit for PRIN 210 may not take this course for credit.

PRIN 221 Lithography I (3 credits)
Prerequisite: Enrolment in a BFA program or written permission of the Department. An introductory studio course in the basic principles of hand-printed stone and photo-digital plate lithography with an emphasis on image development. Drawing and processing images on stone, creating digital files, hand-drawn and digitally generated transparencies, registration, edition printing, and an introduction to colour will be covered. Through assignments, group critiques, and individual discussions with the instructor, students will investigate print media in the context of contemporary culture and explore the theoretical and aesthetic issues in the creation of printed artworks.
NOTE: Students who have received credit for PRIN 220 may not take this course for credit.

PRIN 231 Screenprinting I (3 credits)
Prerequisite: Enrolment in a BFA program or written permission of the Department. An introductory studio course in the basic techniques of screenprinting with an emphasis on creative imagery. This course covers stencil techniques including computer imaging, digital and handdrawn transparencies, light-sensitive emulsion, registration and colour printing. Students will explore the theoretical and conceptual issues of printed artwork in studio practice.
NOTE: Students who have received credit for PRIN 230 may not take this course for credit.

## PRIN 311 Intaglio II (3 credits)

Prerequisite: PRIN 211 or written permission of the Department. An intermediate-level studio course in intaglio with an emphasis on multiplate imagery, including digital applications in print, colour separations, registration, colour proofing and printing. Students will be expected to develop individual projects that explore theoretical issues in contemporary print practice. NOTE: Students who have received credit for PRIN 210 may not take this course for credit.

PRIN 321 Lithography II (3 credits) Prerequisite: PRIN 221 or written permission of the Department. An intermediate studio course in lithography where students will explore diverse conceptual and technical approaches to creating printed colour images. Drawing, digital imaging, photo-transfer methods, photo-plate processes, colour separation, inks, registration and colour printing will be covered. Emphasis through class discussions, slide lectures, visiting artists and critiques is placed on the development of individual studio art practice.
NOTE: Students who have received credit for PRIN 220 may not take this course for credit.

PRIN 331 Screenprinting II (3 credits) Prerequisite: PRIN 231 or written permission of the Department. A studio course in the techniques of screenprinting at the intermediate level. This course will provide the opportunity for continued research in digital imaging and computer print applications, colour printing, alternative printing surfaces and the combination of print processes. Students will be required to create a body of artwork that demonstrates their theoretical and conceptual knowledge of contemporary print media.
NOTE: Students who have received credit for PRIN 230 may not take this course for credit.

PRIN 341 Digital Print Media I ( 3 credits) Prerequisite: Enrolment in a BFA program or written permission of the Department. A studio course with an emphasis on exploring the interdisciplinary, multimedia, and theoretical aspects of digital prints. The focus will be on analogue/digital models, strategies for cultural sampling from the numeric matrix, and the convergence of print with new forms of mass communication such as the Internet.

## PRIN $351 \quad$ Digital Print Processes

 (3 credits)Prerequisite: Enrolment in a BFA program or written permission of the Department. A studio course in the basic concepts of digital imaging and print applications. This course covers file creation, layers and channels for multi-plate hand-printing, resolution, registration, and file export to various digital print formats. Lectures and critiques will focus on theoretical, critical, and aesthetic issues in contemporary digital print media.

## PRIN 371 Contemporary Print Processes

 (3 credits)Prerequisite: Enrolment in a BFA program or written permission of the Department. This studio course will address specific topics in print processes and new technologies. Students will create a portfolio of artwork that demonstrates their research.
NOTE: Specific topics, and additional prerequisites if required, will be stated in the Undergraduate Class Schedule.

## PRIN 381 Aspects of Print Media

 (3 credits)Prerequisite: Enrolment in a BFA program or written permission of the Department. A studio course that will explore specific problems in the discourse of print media. Students will create a body of artwork that demonstrates critical thinking and research on the featured topic. NOTE: Specific topics, and additional prerequisites if required, will be stated in the Undergraduate Class Schedule.

## PRIN 398 Special Topics in Print Media

 (3 credits)Prerequisite: Enrolment in a BFA program or written permission of the Department. A studio
course that examines ideas and practices in contemporary print media. Students will produce printed images that reflect their research and critical thinking on the specific topic.
NOTE: Specific topics, and additional prerequisites if required, will be stated in the Undergraduate Class Schedule.

## PRIN 399 Special Topics in Print Media

 ( 6 credits)Prerequisite: Enrolment in a BFA program or written permission of the Department. A studio course that examines ideas and practices in contemporary print media. Students will produce printed images that reflect their research and critical thinking on the specific topic.
NOTE: Specific topics, and additional prerequisites if required, will be stated in the Undergraduate Class Schedule.

PRIN 411 Intaglio III (3 credits)
Prerequisite: PRIN 311 (or PRIN 210 before September 1997) or written permission of the Department. An advanced studio course for students who want to refine their expertise in intaglio techniques through experimentation and innovation. This course provides the opportunity for further exploration in digital imaging, photogenerated imagery, multiple-plate colour imagery, alternative print surfaces, combined print processes and new technologies. Students will be required to develop a coherent portfolio that demonstrates their involvement in contemporary print media.

PRIN 421 Lithography III (3 credits) Prerequisite: PRIN 321 or written permission of the Department. An advanced studio course that offers students the opportunity to refine their expertise in the creation of hand-drawn and digitally generated images in lithography while exploring experimental and innovative artwork. Emphasis is on individual creative development. Students may choose to explore unique prints, combine print processes, create sequential imagery, three-dimensional and installation projects, and cross-disciplinary work as alternative formats for the lithographic print. Demonstrations, slide and artists' presentations, lectures and critiques will focus on advanced lithographic print approaches and individual interpretation in the creation of artwork.

## PRIN 431 Screenprinting III (3 credits)

 Prerequisite: PRIN 331 or written permission of the Department. An advanced studio course where students will investigate digital print applications, experimental imagery, combined techniques and diverse forms of printing. Group critiques and lectures will emphasize problem solving and critical analysis in the creation of personal imagery.PRIN 441 Digital Print Media II (3 credits) Prerequisite: PRIN 341 or written permission of the Department. An advanced studio course emphasizing innovative and critical approaches
to the digital print. Students will develop an independent research project and produce interdisciplinary work that investigates digital reproduction technologies.

## PRIN 451 Projects in Print Media I (3 credits)

Prerequisite: Six credits in Print Media or written permission of the Department. A studio course where students propose and complete print projects in consultation with the instructor. This course is an opportunity for students to continue their aesthetic research with in-depth and focused print projects. Students will design projects according to their interests and established technical proficiency. The course will emphasize individual practice within the context of informed discussion, group and individual critiques, gallery and museum visits, and may include an exhibition.
NOTE: Students who want advanced technical information in a particular process should enrol in 300- or 400-level courses of intaglio, screenprinting or lithography.

## PRIN 452 Projects in Print Media II

 (3 credits)Prerequisite: PRIN 451 or written permission of the Department. A studio course that provides the opportunity for advanced research into personal imagery and a commitment to print processes. This course is a continuation PRIN 451.

## PRIN 470 Independent Study in Print Media (6 credits)

Prerequisite: Enrolment in a BFA program and written permission of the Department. A studio course of independent study for which the student proposes a research project. The scope of the project and schedule of work should be equivalent to the workload of a six-credit course. NOTE A/See §200.3

## PRIN 471 Independent Study in Print Media I (3 credits)

Prerequisite: Enrolment in a BFA program and written permission of the Department. A studio course of independent study in which the student proposes a research project. The scope of the project and schedule of work should be equivalent to the workload of a three-credit course.

## PRIN 472 Independent Study in Print

 Media II (3 credits)Prerequisite: PRIN 471 and written permission of the Department. A studio course of independent study in which the student proposes a research project. The scope of the project and schedule of work should be equivalent to the workload of a three-credit course.

## PRIN $481 \quad$ Professional Internship (3 credits)

Prerequisite: Written permission of the Department. Internships are for students who wish to obtain practical experience by working as an
apprentice in a professional environment, or who would like to pursue research in the curating of prints, print criticism, or other related experience in print media, and receive academic credit for the activity. Approval of the project will be based on the demonstrable learning potential of the activity. Students are required to submit an internship proposal that clearly defines the objective of the activity, appropriate workload (equivalent to the hours required for a threecredit course), nature of participation, and supervisory schedules. The internship will be jointly supervised by a faculty member and a qualified professional. It is the student's responsibility to obtain approval for the proposal from a program adviser, including any required contractual agreements, before the start of the internship.

## PRIN 498 Special Topics in Print Media

 (3 credits)Prerequisite: Six credits in Print Media or written permission of the Department. A studio course for advanced students that examines ideas and practices in contemporary print media. Students will produce printed images that reflect their research and critical thinking on the specific topic. NOTE: Specific topics, and additional prerequisites if required, will be stated in the Undergraduate Class Schedule.

## PRIN 499 Special Topics in Print Media ( 6 credits)

Prerequisite: Six credits in Print Media or written permission of the Department. A studio course for advanced students that examines ideas and practices in contemporary print media. Students will produce printed images that reflect their research and critical thinking on the specific topic. NOTE: Specific topics, and additional prerequisites if required, will be stated in the Undergraduate Class Schedule.

## Sculpture:

SCUL 200 Sculpture I (6 credits)
Prerequisite: Enrolment in a BFA program or written permission of the Department. An investigation into the modes of expression in sculpture through a variety of contemporary and traditional materials and methods including casting, modelling, construction, and welding. NOTE A/See §200.3

## SCUL 300 Sculpture II (6 credits)

Prerequisite: SCUL 200 or permission of the coordinator. Investigation into materials and methods emphasizing an individual form of study. The development of concepts and their application, imagination, and vocabulary is essential. NOTE A/See §200.3

## SCUL 398 Special Topics in Sculpture

 3 credits)Prerequisite: Third-year standing*; written permission of the Department. A workshop/ seminar course providing an opportunity for the
study of specialized aspects of sculpture.

## NOTE C/See §200.3

*fewer than 33 credits remaining in the degree program.

## SCUL 399 Special Topics in Sculpture

 (6 credits)Prerequisite: Written permission of the Department. A workshop/seminar course providing an opportunity for the study of specialized aspects in sculpture. NOTE C/See §200.3

## SCUL 400 Sculpture III (6 credits)

Prerequisite: SCUL 300 or permission of the coordinator. Advanced investigation into a single or group of concepts and materials through the development of a body of personal work. NOTE A/See §200.3

SCUL 450 Independent Study ( 6 credits) Prerequisite: Third-year standing*; SCUL 400, previously or concurrently; and written permission of the Department. This course provides the opportunity for a limited number of students to pursue advanced studies in sculpture.

## NOTE A/See §200.3

*fewer than 33 credits remaining in degree program.

SCUL 465 Contemporary Practice and Theory in Sculpture (6 credits) Prerequisite: Enrolment in the Major in Sculpture, in Ceramics, or in Fibres; or written permission of the Department. A seminar course which looks at recent sculpture practice and theory from an artist's point of view. Readings and lectures will be complemented by visiting artists, visits to exhibitions, presentations, and other related activities.

SCUL 490 Advanced Studio Practice ( 6 credits)
Prerequisite: Enrolment in the Major in Sculpture, in Ceramics, or in Fibres; or written permission of the Department. A studio course providing an opportunity for the advanced student to work in an intimate context within a studio setting, structured around current topics of theoretical and practical importance.

## Video:

VDEO 300 Video Art Production (6 credits) Prerequisite: Second-year standing*; VDEO 350 previously or concurrently; and written permission of the Studio Arts Department or the School of

Cinema. A studio course introducing video technology as a tool for aesthetic investigation and creation. Students work individually and collaboratively to develop a proficiency in the medium and evolve their particular thematic and formal concerns. Conceptual issues specific to video are also discussed through the analysis and demonstration of video art.
NOTE: Students are required to bear the cost of materials.
*66 or fewer credits remaining in degree program.

## VDEO 350 Video History and Theory

 ( 6 credits)A survey lecture course introducing the history and theory of art video practice since its inception in the 1960's. The course locates the roots of this art form in such divergent impulses as conceptualism, community activism, technological experimentation, and broadcast television, as well as in narrative and documentary traditions. In addition, regional Canadian video artists and cooperatives are situated within international historical trends and the development of postmodern and other theoretical perspectives. Weekly screenings.

## VDEO 400 Advanced Video Art Practices (6 credits)

Prerequisite: VDEO 300, 350; and written permission of the Department. A studio/seminar course that permits students to pursue an advanced investigation of the aesthetic and technical aspects of video art practices through the development of a personal body of work. NOTE: Students are required to bear the cost of materials.

## Women and the Fine Arts:

WFAR 320 Women and the Fine Arts I (6 credits)
An investigation of the visual and performing arts as they pertain to issues of gender. Studio practices in relation to theoretical and critical concerns are investigated. NOTE A/See §200.3
NOTE: Students who have received credit for
FFAR 320 may not take this course for credit.
WFAR 420 Women and the Fine Arts II ( 6 credits)
Prerequisite: WFAR 320 or written permission of the coordinator. A continuation of WFAR 320. NOTE: Students who have received credit for FFAR 420 may not take this course for credit.

### 81.120 <br> THEATRE

\begin{tabular}{|c|c|c|c|c|}
\hline Faculty \& \begin{tabular}{l}
Chair \\
GEN \\
Profe \\
GERA \\
PHILI
\end{tabular} \& \begin{tabular}{l}
GIBBONS, Associate Professor \\
sors \\
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SPENSLEY
\end{tabular} \& \multicolumn{2}{|l|}{\begin{tabular}{l}
Associate Professors \\
RALPH ALLISON \\
KIT BRENNAN \\
ANA CAPPELLUTO \\
NANCY HELMS \\
EDWARD LITTLE \\
ERIC MONGERSON
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\hline Location \& \[
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\& \text { TJ } \\
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\end{aligned}
\] \& Campus ilding, Room: 102 (514) 848-4747 \& \multicolumn{2}{|l|}{Fax: (514) 848-4525 E-Mail: carolpl@alcor.concordia.ca Web Site: http://theatre.concordia.ca} \\
\hline \begin{tabular}{l}
Department \\
Objectives
\end{tabular} \& \multicolumn{4}{|l|}{\begin{tabular}{l}
The Theatre Department offers students an opportunity to explore theatre as an art form and instrument for social and personal change. \\
The Theatre programs provide students with a basic grounding in design, theatre and development, production, performance, and playwriting, and serve as preparation for advanced studies. The Department welcomes autonomy and personal creativity in its students while encouraging initiative and collaboration. Reflecting the realities of modern theatre, it also prepares students for self-employment and entrepreneurial roles within national and international milieux.
\end{tabular}} \\
\hline Programs \& \multicolumn{4}{|l|}{Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20. The superscript indicates credit value.} \\
\hline \& 48
30 \& \begin{tabular}{l}
BFA Major in Theatre \\
Core studies: TDEV 209³; DFTT 2093, \\
\(210^{3}\); THEA \(211^{3}, 303^{3}, 312^{3}, 404^{3}\); \\
PROD 211 \({ }^{3}\); TPER 209 \({ }^{3}\), \(210^{3}\)
\end{tabular} \& \multicolumn{2}{|l|}{12 Elective credits from the Department of Theatre (including a minimum of three credits at the 400 level)} \\
\hline \& 18 \& Elective credits from the Department of Theatre (including a minimum of three credits at the 400 level) \& 60 \& \multirow[t]{3}{*}{\begin{tabular}{l}
BFA Specialization in Theatre Performance \\
Core studies: TDEV 2093; DFTT 2093, \(210^{3}\); THEA \(211^{3}, 303^{3}, 312^{3}, 404^{3}\); PROD 2113; TPER 2093, \(210^{3}\) Chosen from TPER \(231^{3}, 311^{3}, 312^{3}\), \(331^{3}, 345^{3}, 355^{3}, 398^{3}, 431^{3}\) \\
Elective credits from the Department of Theatre (including a minimum of three credits at the 400 level)
\end{tabular}} \\
\hline \& 60 \& BFA Specialization in Design for the Theatre \& 18 \& \\
\hline \& 30

9

9 \& | Core studies: TDEV 2093; DFTT 209³, |
| :--- |
| $210^{3}$; THEA $211^{3}, 303^{3}, 312^{3}, 404^{3}$; |
| PROD 211 ${ }^{3}$; TPER 209 ${ }^{3}$, $210^{3}$ |
| Chosen from DFTT $311^{3}, 321^{3}, 331^{3}, 498^{3}$ |
| Chosen from DFTT $315^{3}, 325^{3}, 326^{3}, 335^{3}$ | \& 12 \& <br>

\hline \& 3

9 \& | $336^{3}, 337^{3}, 398^{3}$ |
| :--- |
| THEA $411^{3}$ |
| Elective credits from the Faculty of Fine Arts* | \& 48

30 \& \multirow[t]{2}{*}{| BFA Major in Playwriting |
| :--- |
| Core studies: TDEV 2093; DFTT 209³, |
| $210^{3}$; THEA $211^{3}, 303^{3}, 312^{3}, 404^{3}$; |
| PROD 211³; TPER 2093, $210^{3}$ |
| THEA $241^{3}, 341^{3}, 342^{3}, 420^{6}$ |
| THEA $411^{3}$ |} <br>

\hline \& \& Ats are advised to select six credits from $250^{6}, 260^{6}, 270^{6}$. \& 15
3 \& <br>
\hline \& 60
30

3

15 \& | BFA Specialization in Theatre and Development |
| :--- |
| Core studies: TDEV 2093; DFTT 209³, $210^{3}$; THEA $211^{3}, 303^{3}, 312^{3}, 404^{3}$; |
| PROD 2113; TPER 2093, $210^{3}$ |
| TDEV $210^{3}$ |
| Chosen from TDEV $302^{3}, 303^{3}, 311^{3}$, $312^{3}, 421^{3}, 431^{3}, 432^{3}, 498^{3}$ | \& 24

6
6

12 \& | Minor in Theatre |
| :--- |
| Chosen from THEA $303^{3}, 312^{3}, 404^{3}$ |
| Chosen from PROD 2113; THEA 211; |
| TPER $201^{3}$ |
| Elective credits from the Department of Theatre | <br>

\hline
\end{tabular}

81.120.1

Admission to
Programs in Theatre

The Department of Theatre has distinct admissions procedures in addition to the normal admission process of Concordia University. All applicants are required to sit for an interview and submit a letter of intent (approximately 500 words) in which they name specifically to which program they wish to apply: the Major in Theatre, the Minor in Theatre, the Specialization in Theatre and Development, the

Specialization in Design for the Theatre, the Major in Playwriting or the Specialization in Theatre

## Performance.

Applicants must contact the Department of Theatre in February to arrange their appointments and to obtain detailed information regarding interviews, auditions, portfolios, and letters of intent. In addition to the interview and letter of intent:

1. Applicants applying to the Specialization in Design for the Theatre must bring to the interview a portfolio including visual material demonstrating their creative abilities and interests.
2. Applicants applying to the Specialization in Theatre and Development are required to audition.
3. Applicants applying to the Specialization in Theatre Performance are required to audition.
4. Applicants applying to the Major in Playwriting must send in a portfolio of writing for the stage before their scheduled interview.
5. Applicants applying to the Major in Theatre may choose to audition or to submit a portfolio of materials demonstrating their creative abilities and interests.
6. Applicants applying to the Minor in Theatre are required to attend an interview.

## Courses

Theatre:
THEA 211 Script Analysis (3 credits) Prerequisite: Enrolment in a program of the Department of Theatre or written permission of the Department. A study of systematic approaches commonly used for the analysis of dramatic scripts. Students will practice analytical skills on a representative selection of plays, including, when appropriate, those slated for production by the Department.
NOTE: Students who have received credit for THEA 240 may not take this course for credit.

## THEA 241 Elements of Playwriting

 (3 credits)Prerequisite: Enrolment in a program of the Department of Theatre or written permission of the Department. Study of and practice in creating the elements of a play. Students will explore different aspects of the writing process, and are expected to submit work of their own on a regular basis for discussion and workshopping within the group.

THEA 303 Theatre History I (3 credits) A study of the development of the physical stage and representative theoretical and dramatic works within their social context from pre-history to the eighteenth century in Europe. Where appropriate, screenings of plays representing the periods under study are shown. NOTE A/See §200.3

## THEA 312 Current Canadian Theatre

 (3 credits)A survey of Canadian theatre in the present day, incorporating a study of notable works, outstanding artists and other figures in the arts world and arts organizations. The course will include an analysis of conditions prevailing on the theatre in various regions of the country and will invite students to take stock of their own future in the theatre or elsewhere.
NOTE: Students who have received credit for THEA 403 may not take this course for credit.

THEA 317 Stage Management (3 credits) Prerequisite: TDEV 209; DFTT 210; PROD 211; THEA 211; TPER 210; or written permission of the Department of Theatre. The key role of a stage manager in theatrical production from
audition through closing. Topics for consideration include organizational techniques, prompt-book construction and use, scheduling, personnel supervision, and the "running" of a show.

## THEA 321 Theatre Administration I

(3 credits)
An introduction to theatre administration including theatre organization and management, budgeting, box office operation, publicity, and public relations. NOTE A/See §200.3

## THEA 341 Playwriting I (3 credits)

Prerequisite: THEA 241, or enrolment in a program of the Department of Theatre, or written permission of the Department. A seminar in the writing of plays. Students will concentrate upon a particular genre, length of play, or other prearranged topic, and will submit original scripts for discussion, workshopping, and possible presentation.

THEA 342 Playwriting II (3 credits) Prerequisite: THEA 241, or enrolment in a program of the Department of Theatre, or written permission of the Department. A seminar in the writing of plays. Students will concentrate upon a particular genre, length of play, or other prearranged topic, and will submit original scripts for discussion, workshopping, and possible presentation. The prearranged topic or genre will be different from that offered in Playwriting I in any one year.

THEA 404 Theatre History II (3 credits) Prerequisite: THEA 303 or written permission of the Department of Theatre. A study of the development of the physical stage and representative theoretical and dramatic works within their social context in Europe, the United States, and Canada from the nineteenth century to recent years. Where appropriate, screenings of plays representing the periods and types of works under study are shown.
NOTE: Students who have received credit for THEA 304 may not take this course for credit.

THEA 405 Independent Study I (3 credits) Prerequisite: Written permission of the Department of Theatre. Credit granted for independent projects supervised by a faculty member. Stu-
dents are required to submit a paper based on their investigation.
NOTE C/See §200.3
THEA 411 Directing ( 3 credits)
Prerequisite: Completion of 24 credits of the Core, including DFTT 210 and TPER 210 or written permission of the Department of Theatre. Examination of and experimentation in staging and production organization. Exercises in visual, structural, and conceptual analysis.
NOTE A/See §200.3
THEA 415 Independent Study II (3 credits) Prerequisite: THEA 405 and written permission of the Department of Theatre. A continuation of THEA 405. Students who have taken THEA 405 register for THEA 415 for additional credits.

## THEA 420 Playwriting Workshop (6 credits)

Prerequisite: Third-year standing* and at least one of THEA 241, 341 or 342 and written permission of the coordinator of the Major in Playwriting; or enrolment in the Major in Playwriting and THEA 241, 341 and 342. A workshop for playwrights, actors, directors, and scenographers in which original scripts are written and workshopped for possible future production. An outcome of an appropriate dimension is a feature of this course.
*fewer than 33 credits remaining to be completed in degree program.

THEA 422 Theatre Administration II (3 credits)
Prerequisite: THEA 321 or written permission of the Department of Theatre. A continuation of THEA 321 with additional topics introduced such as financing, contracting, taxation, and touring. NOTE A/See §200.3
NOTE: Students who have received credit for THEA 322 may not take this course for credit.

THEA 498 Topics in Theatre Studies (3 credits)
Prerequisite: Written permission of the Department of Theatre. Topics in theatre which may include genres, periods, individual playwrights, and national theatres. NOTE C/See §200.3

## Design for the Theatre:

DFTT 209 Introduction to Design for the Theatre I (3 credits)
Prerequisite: Permission of the Department of Theatre. An examination of the theatrical design process, including the role of designers in the theatre. Students study and practice the conception, communication, and realization of design ideas in lectures and lab.
NOTE: Students who have received credit for DFTT 250 may not take this course for credit.

DFTT 210 Introduction to Design for the
Theatre II (3 credits)
Prerequisite: DFTT 209. A continuation of

DFTT 209.
NOTE: Students who have received credit for DFTT 250 may not take this course for credit.

DFTT 305 Independent Study ( 3 credits) Prerequisite: Written permission of the Department of Theatre. Credit granted for independent projects in Design for the Theatre supervised by a faculty member.

DFTT 311 Lighting Design ( 3 credits)
Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Lighting design for the theatre with emphasis on conception, development, and communication of lighting design ideas. Students participating in lectures and studios examine theories, aesthetics, and conventions of stage lighting design. They also carry out projects in lighting design conception.

## DFTT 315 Lighting Design Realization (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Lighting for the stage with emphasis on analysis, development, and execution of lighting design ideas. Students participating in lectures and studios examine lighting as a practical expressive and interpretative media. They carry out projects using stage lighting equipment in an actual theatre space. NOTE A/See §200.3

DFTT 321 Costume Design (3 credits) Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Costume design for the theatre with emphasis on imaginative and analytical processes of developing and communicating costuming design ideas.
Students, participating in lectures, studios and projects, examine theories, aesthetics, and conventions of stage costume design.

## DFTT 325 Costume Design Realization (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Materials, equipment, techniques, and procedures utilized in the construction of theatre costumes. Emphasis is on patterning, draping, and basic construction methods.

## DFTT 326 Costume Accessories Realization (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Costuming for the stage with emphasis on analysis, development, and execution of costume design ideas. Students, participating in lectures and studios, examine materials, equipment, and procedures utilized in the realization of costume accessories. They carry out projects in buckram and frame construction for hats, mask-making, and accessory construction. NOTE A/See §200.3

DFTT 331 Set Design (3 credits) Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Set
design for the theatre with emphasis on conception, development, and communication of scenic design ideas. Students, participating in lectures and studios, examine theories, aesthetics, and conventions of set design. They also carry out projects in set conception.

## DFTT 335 Set Design Realization (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Stage scenery with emphasis on analysis, development, and execution of scenic design ideas. Students, participating in lectures and studios, examine the process of translating scenic designs into actual stage systems. They carry out projects using the equipment and material commonly used in set construction.

DFTT 336 Stage Properties (3 credits) Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Studio work in the design and construction of properties and accessories for theatre production.

## DFTT 337 Scene Painting (3 credits)

 Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Studio work in the materials and technology of painting for the theatre. NOTE A/See §200.3
## DFTT 398 Special Topics in Design for the Theatre (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Selected topics in design realization. NOTE C/See §200.3

DFTT 498 Special Topics in Design for the Theatre (3 credits)
Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Selected topics in theatre design.
NOTE C/See §200.3

## Production:

NOTE: Conditions of access to courses and scheduling:

1. All assignments or roles are given after interview or audition.
2. Before registering for Production courses, students must make sure they are free to attend all rehearsals or crew calls according to the schedules published each session by the Department of Theatre.
3. Students may not register for more than one course in Production during the same semester.

## PROD 211 Introduction to Theatre Production (3 credits)

Prerequisite: Enrolment in a program of the Department of Theatre or permission of the Department. A survey of selected operations central to production in the professional theatre. Students are assigned to various crews associ-
ated with departmental productions.
NOTE: Students who have received credit for THEA 240 may not take this course for credit.

PROD 311 Theatre Production I (3 credits)
Prerequisite: TDEV 209; DFTT 209, 210;
FFAR 250; THEA 211; TPER 209, 210;
PROD 211; concurrent registration in six credits of courses outside the Faculty of Fine Arts, and written permission of the Department of Theatre. Participation in a theatre production prepared under the auspices of the Department of Theatre and presented to an audience. The systematic preparation for the presentation of the work requires the integration of scholarly, imaginative and organizational activities under the supervision of instructors and staff acting either as part of the creative team or as guides and members of an adjudicating panel.

PROD 312 Theatre Production II (3 credits) Prerequisite: PROD 311 and written permission of the Department of Theatre. A continuation of PROD 311 in an intensive format, requiring extensive work of a different type or level of complexity, or demanding a higher degree of proficiency.

PROD 315 Production $\boldsymbol{A}$ ( 6 credits) Prerequisite: PROD 311 and written permission of the Department of Theatre. A continuation of PROD 311 in an intensive format, requiring extensive work of a different type or level of complexity, or demanding a higher degree of proficiency.

PROD 408 Supervised Internship I (3 credits)
Prerequisite: Second-year standing* and written permission of the Department of Theatre. An opportunity for students to obtain credit for work completed for a recognized theatre or project under the joint supervision of a qualified professional and a full-time Theatre faculty member.
NOTE C/See §200.3
*fewer than 66 credits remaining in degree program.

PROD 409 Supervised Internship II (3 credits)
Prerequisite: PROD 408 and written permission of the Department of Theatre. A continuation of PROD 408. A student repeating PROD 408 register for PROD 409 for credit.

## PROD 411 Theatre Production III

 (3 credits)Prerequisite: PROD 311 or 315; FFAR 250; six credits in courses outside the Faculty of Fine Arts and concurrent registration in another six in courses outside the Faculty and written permission of the Department of Theatre. Advanced assignments in the various areas of theatre.

## PROD 412 Theatre Production IV

(3 credits)
Prerequisite: PROD 411 and written permission
of the Department of Theatre. A continuation of PROD 411, with assignments of a different type, degree of complexity, or demanding a higher degree of proficiency.

PROD 415 Production $\boldsymbol{B}$ ( 6 credits) Prerequisite: PROD 312 or 315 or 411, six credits in courses outside the Faculty of Fine Arts and concurrent registration in another six credits in courses outside the Faculty and written permission of the Department of Theatre. Extensive assignments, requiring intensive work in various areas of advanced theatre work.

PROD 416 Production C (6 credits) Prerequisite: Third-year standing, PROD 416, six credits in courses outside the Faculty of Fine Arts and concurrent registration in another six credits in courses outside the Faculty and written permission of the Department of Theatre. Extensive assignments, requiring intensive work in various areas of advanced theatre work.

## Theatre and Development:

## TDEV 209 The Artist in Community (3 credits)

Prerequisite: Enrolment in a program of the Department of Theatre or written permission of the Department of Theatre. This course introduces students to the developmental aspects of the field, including therapeutic and social applications as they relate to personal and group development, and provides students with diverse perspectives on the artist's role in society. With an emphasis on experiential learning, opportunities are provided for practical work in the creation of original narratives, improvised role plays, and sensory and image work, towards an understanding of students' entrepreneurial potential in theatre making. NOTE: Students who have received credit for DFHD 209 or DINE 200 may not take this course for credit.

## TDEV 210 The Audience and the Performance Event (3 credits)

Prerequisite: TDEV 209 or written permission of the Department of Theatre. This course introduces students to theories and practical skills informing a wide range of theatre and development approaches including agit prop, group workshop, collective creation, documentary drama, issue-based theatre, and collaborative community plays. Both theory and practice will be examined in the context of the relationship of the performance to its audience. Practical work will focus on collaborative group processes and the exploration of social issues through theatre. NOTE: Students who have received credit for DFHD 210 or DINE 200 may not take this course for credit.

## TDEV 302 Theatre with Diverse <br> Populations (3 credits)

Prerequisite: TDEV 209 or written permission of
the Department of Theatre. Design and preparation of appropriate drama or theatre activities with specific populations. Working as a team, students will learn to employ community development principles in planning and implementing a theatre program with a targeted population or community group. Topics include specialized learning and teaching strategies, animation skills, needs assessment, and program evaluation. This course will prepare students to carry out independent projects in upper-level courses. NOTE: Students who have received credit for DFHD or DINE 302 may not take this course for credit.

## TDEV 303 Storytelling, Oral Histories, and Identity (3 credits)

 Prerequisite: TDEV 209 or written permission of the Department of Theatre. A course in the study and practice of the narrative tradition, from its roots in the past to today. Stories from the student's own past and that of other cultures will be examined, leading to the creation and crafting of new stories and/or oral histories. Oral processes such as learning, embodying, and giving will be examined in the context of audience, desired effect, and ownership. Students will also gain a greater understanding of the power of listening: of hearing not only what a story says, but what it can do.NOTE: Students who have received credit for DFHD or DINE 303 may not take this course for credit.

## TDEV 311 Popular Theatre: Theory and Practice (3 credits)

Prerequisite: TDEV 209 or written permission of the Department of Theatre. An examination of the principles on which popular theatre is based, including objectives, approaches, and evaluation. The course will provide an overview of the work of various founders (e.g. Freire, Boal), as well as pertinent theatre companies around the world engaged in social activism and the creation of opportunities for social change. Topics are approached through a mix of academic studies and the practice of specific techniques. Students may also prepare a work of popular theatre. NOTE: Students who have received credit for DFHD 311 or for this topic under a DINE 498 number may not take this course for credit.

## TDEV 312 Theatre with Young People (3 credits)

Prerequisite: TDEV 209 or written permission of the Department of Theatre. Using both national and international contexts, students will look at various approaches to drama and theatre activities in work with children and adolescents, and examine these with reference to differences between performing for and creating with. The course will provide an overview of contemporary participatory practices, both within and outside a classroom setting, and will look at these practices in the larger context of theatre for young audiences in Canada. The course has a practical
component, and students will have opportunities to learn and implement age-appropriate activities. NOTE: Students who have received credit for DFHD 312, DINE 412, or DINE 413 may take this course for credit.

TDEV 405 Independent Study I (3 credits) Prerequisite: Third-year standing* and written permission of the Department of Theatre. Credit granted for independent projects in Theatre and Development supervised by a faculty member. *fewer than 33 credits remaining in degree program.
NOTE: Students who have received credit for DFHD 405 may not take this course for credit.

TDEV 415 Independent Study II (3 credits) Prerequisite: Third-year standing* and written permission of the Department of Theatre. A continuation of TDEV 405. Students who have taken TDEV 405 register for TDEV 415 for additional credits.
*fewer than 33 credits remaining in degree program.
NOTE: Students who have received credit for DFHD 415 may not take this course for credit.

## TDEV 421 An Introduction to Drama

 Therapy ( 3 credits)Prerequisite: Written permission of the Department of Theatre. An introduction to the theory and practice of drama therapy, including grounding in psychology pertinent to the field. Lectures and workshops in which students examine the philosophical and historical foundations of drama and theatre in therapy. NOTE: Students who have received credit for DFHD 421 or DINE 420 may not take this course for credit.

## TDEV 431 Special Projects in Theatre and Development I (3 credits)

Prerequisite: TDEV 302 and written permission of the coordinator of Theatre and Development. An lecture/lab in observing, evaluating, planning and implementing drama curricula in various locations such as inner-city schools, prisons, homes for the elderly, and women's shelters. Students shall engage in wide-ranging and intensive fieldwork in various placements, reporting back to classmates and receiving lectures, feedback and observations on their progress from the instructor of the course. NOTE: Students who have received credit for DFHD 431 may not take this course for credit.

## TDEV 432 Special Projects in Theatre and Development II (3 credits)

Prerequisite: TDEV 431 and written permission of the coordinator of Theatre and Development. Continuation of TDEV 431 with a different topic. NOTE: Students who have received credit for DFHD 432 may not take this course for credit.

## TDEV 498 Special Topics in Theatre and Development (3 credits)

Prerequisite: Written permission of the Depart-
ment of Theatre. The study of specialized aspects of Theatre and Development.

## Theatre Performance:

## TPER 201 Introduction to Acting

 (3 credits)Emphasis on developing imagination and physical expression, including basics of improvisation, the playing of intention, and the group ensemble experience working towards presentation.
NOTE: Students enrolled in a Major or Specialization program in the Department of Theatre may not take this course for credit.

TPER 209 Acting I (3 credits)
Prerequisite: Enrolment in a program of the Department of Theatre or written permission of the Department of Theatre. An introduction to the basic principles of the acting process. Areas of study include: sensory awareness, physical and vocal expression of image and intention, improvisation exercises focusing on the development of the actor's imagination, concentration, and ensemble playing. The emphasis is upon the process of making connections to images and listening to others in the theatrical space.

## TPER 210 Acting II (3 credits)

Prerequisite: TPER 209. A continuation of TPER 209 with increased emphasis on language and text. The principles learned in the previous course will be applied to dramatic text including text analysis for the actor.

TPER 231 Theatre Movement I (3 credits) Prerequisite: Written permission of the Department of Theatre. Movement for the stage including such areas as centring, relaxation, mime, neutral mask, and studies in rhythm and timing. NOTE: Students who have received credit for TPER 213 or 313 may not take this course for credit.

TPER 311 Character and Text (3 credits)
Prerequisite: TPER 210 (or 212 before September 1998) and written permission of the Department of Thearre. Principles of characterization in various dramatic genre: elements of rhythm, physical and vocal attitude, language, and related improvisation techniques.

## TPER 312 Acting Elizabethan Text

 (3 credits)Prerequisite: TPER 210 (or 212 before
September 1998) and written permission of the Department of Theatre. Analysis of Elizabethan text and application of acting principles to the demands of verse forms.

TPER 325 Acting Styles (3 credits) Prerequisite: TPER 311 or 312 and written permission of the Department of Theatre. This course focuses on acting styles as they relate to audience-performer relationships in dramatic genre and periods.
NOTE: Students who have received credit for TPER 411 may not take this course for credit.

TPER 331 Theatre Movement II (3 credits) Prerequisite: TPER 231 and written permission of the Department of Theatre. Approaching character through the use of mask. The study of movement and voice aspects of character are approached through the use of half-masks. Improvisation skills are further developed. NOTE: Students who have received credit for TPER 323 may not take this course for credit.

## TPER 333 Special Performance Studies I

 (3 credits)Prerequisite: TPER 311 or 312 and written permission of the Department of Theatre. The study of special performance techniques such as musical theatre, clown, Commedia dell'Arte, and mime.
NOTE: Students who have received credit for TPER 413 may not take this course for credit.

TPER $345 \quad$ Voice and Speech I (3 credits) Prerequisite: TPER 210 (or 212 before September 1998) and written permission of the Department of Theatre. An introduction to voice, speech, and singing skills. Vocal production, articulation, phrasing, and language analysis are
taught in studio and laboratory sessions.
NOTE: Students who have received credit for TPER 215 may not take this course for credit.

TPER 355 Voice and Speech II (3 credits)
Prerequisite: TPER 345 and written permission of the Department of Theatre. A continuation of TPER 345 with greater emphasis on shaping patterns of speech, use of language for character development.
NOTE: Students who have received credit for TPER 315 may not take this course for credit.

## TPER 398 Special Topics in Theatre

 Performance (3 credits) Prerequisite: Written permission of the Department of Theatre. Provides opportunities for studies in selected styles or modes of theatre performance. NOTE C/See §200.3TPER 431 Theatre Movement III (3 credits) Prerequisite: TPER 331 and written permission of the Department of Thearre. Specialized movement techniques that may include such topics as Alexander, Feldenkreis, Laban, acrobatics and stage combat.

Faculty
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Faculty Full-Time

ABOU-ZEID, El Sayed, BSc Alexandria, BSc Military Tech. Coll., Cairo, MSc PhD Alexandria, Decision Sciences and Management Information Systems
ABRAIRA, Ronald J., BSc N.Y. State, MBA C'dia, Management
ABRAMI, Philip, BA Bard Coll., MA PhD Manit., Education
ACHESON, Palmer, BA BEd Lond., MBA U.Q.A.M., MS PhD Indiana, TESL (Applied Linguistics)
ACLAND, Charles Reid, BComm Car., PhD Illinois, Communication Studies
ACLAND, Joan, BA Car., MA PhD C'dia, Art History
ADAMS, Liselyn, BMus Boston, DipMusPerf Royal Conserv., The Hague, Music
AGARWAL, Anjali, BE Delhi, MSc Calg., PhD C'dia, Electrical and Computer Engineering
AGHDAM, Amir G., BSc Isfahan, MSc Sharif Tech., MPhil Tor., Electrical and Computer Engineering
AHMAD, Arshad, BComm C'dia, MBA PhD McG., Finance
AHMAD, Jaleel, BA Alig., MS Pitt., PhD M.I.T., Economics
AHMAD, M. Omair, BEng Sir G. Wms., BSc Alld., DEng C'dia, Electrical and Computer Engineering
AHMED, A.K. Waizuddin, BEng PhD C'dia, Mechanical and Industrial Engineering
AHN, Seoungpil, BAdmin MSc Pusan Nat'l., MSc Purdue, Finance
AHSAN, Syed M., BA Dacca, MA Essex, PhD McM., Economics

AIKEN, S. Robert, BA Belf., MA McM., PhD Penn. State, Geography
AIT MOHAMED, Otmane, BEng Sidi-Bel-Abbes, MSc PhD H.P.N., Electrical and Computer Engineering
AKGUNDUZ, Ali, BSc Gazi, MBA Illinois Tech., PhD III. at Chic., Mechanical and Industrial Engineering
ALBERT, Paul J., BSc PhD New Br., Biology
ALI, Syed Twareque, BSc MSc Dacca, MS PhD Roch., Mathematics and Statistics
ALKASS, Sabah Toma, BSc U. of Tech., MSc PhD Lough., Building, Civil and Environmental Engineering
AL-KHALILI, Asim J., MSc PhD Strath., Electrical and Computer Engineering
ALLEN, Paul, BA Br. Col., MDiv Tor., PhD(Th) Ott., Theological Studies
ALLEN, Robert, BA Tor., MFA MA Cornell, English
ALLISON, R.R., BA MA Calif., PhD Flor. State, Theatre
ALLOR, Martin, BA Oakland, PhD Illinois, Communication Studies

ALVI, Shafiq A., BA MA Karachi, PhD Colo., Economics
ALY, Ibrahim M., BComm MS Egypt, MBA PhD N. Texas State, Accountancy

AMANTEA, Gisèle, BFA Calg., MFA Puget Sound (Wash.), Studio Arts
AMER, Aishy, Cert. Acad. Teach. MSc Dortmund, PhD Québ., Electrical and Computer Engineering
AMIR, Shimon, BA MA Tel Aviv, PhD McG., Psychology
AMIT, Vered, BA McG., MA Tor., PhD Manc., Sociology and Anthropology
AMOR, Meir, BA MA Tel-Aviv, PhD Tor., Sociology and Anthropology
ANASTASIU, Stefan, BFA MFA Fine Arts Acad. Bucarest, Cinema
ANASTASOPOULOS, Anastas, BA Athens, MA PhD Roch., Economics
ANDERSON, Jacqueline M., BA Dund., MSc Alta., PhD Madison, Wis., Geography
ANVARI, Mohsen, BEng McM., MBA C'dia, MSc PhD Case Western Res., Finance
APPELBAUM, Steven H., BS Temple, MA St. Jos., PhD Ott., Management
APRIL, Raymonde, BA Laval, Studio Arts
ARCHAMBAULT, Anne, BA Br. Col., BSc Montr., Applied Human Sciences
ARGHEYD, Kamal, Higher Nat'l. DME Enfield Coll. of Tech., MBA Iran C.M.S., DBA Harv., Management
ARISTIMUNO, Leonardo, BA Chic., MA Lanc., MFA Temple, MFA King's Coll., Communication Studies
ARNOPOULOS, Sheila, BA McG., MA C'dia, Journalism
ASHTAKALA, Bala, BE Madr., ME Roor., PhD Wat., Building, Civil and Environmental Engineering
ATHIENITIS, Andreas K., BSc N.B., PhD Wat., PEng Alta., Building, Civil and Environmental Engineering
ATWOOD, J. William, BEng McG., MASc Tor., PhD Illinois, Computer Science
AUSTIN, Kevin, BMus MMA McG., Music
AVOLONTO, Aimé, BA MA Benin, PhD U.Q.A.M., Études françaises

BACHMANN, Ingrid, BA York (Can.), Studio Arts
BAHLI, Bouchaib, MBA Laval, MSc Sfax, Decision Sciences and Management Information Systems
BAILEY, Shawn, BFA Calg., MFA York, Studio Arts
BANDIA, Paul, LèsL Paris, MA PhD Montr., Etudes françaises
BARAKETT, Joyce, BA Sir G. Wms., MA PhD Montr., Education
BARAN, Boris, BSc McG., MSc Wayne State, Decision Sciences and Management Information Systems

BARBIERI, Bryan S., BA Montr., MBA Col., BCL LLB McG., Marketing
BARON, Lois J., BA McG., MA Mich. State, PhD Tor., Education
BAYNE, Clarence S., BA MA Br. Col., PhD McG., Decision Sciences and Management Information Systems
BEAMAN, Lori, BA MA PhD New Br., Sociology and Anthropology
BEAUCHESNE, Denis, BA MBA C'dia, Management
BEAUDRY, Anne, BBus MBA U.Q.A.M., Decision Sciences and Management Information Systems
BÉDARD, Claude, BScA Laval, MSc PhD Imperial Coll., U.K., Building, Civil and Environmental Engineering
bÉLANGER, Anouk, BSc MSc Montr., PhD S. Fraser, Sociology and Anthropology

BELISLE, Jean, BA MA Montr., PhD Paris, Art History
BELZIL, Christian, BSc MSc Montr., PhD Cornell, Economics
BERGIER, Michel J., BA Nat'l. Educ. France, MBA PhD SUNY (Buffalo), Marketing
BERGLER, Sabine, Vordiplom Stuttgart, MS Mass., PhD Brandeis, Computer Science
BERNARD, Robert M., BS MS Tenn., PhD Wash., Education
bertola, Marco, PhD Sissa, Mathematics and Statistics
BERZOWSKA, Joanna, BA McG., BFA C'dia, MSc M.I.T., Design Art
BETTON, Sandra, BComm McM., MSc PhD Br. Col., Finance
BHABRA, Harjeet, BS Kharagpur, DSM Jamnalal Bajaj Inst., MBA I.I.Mana., PhD Missouri-Columbia, Finance
BHAT, Rama B., BEng Mys., MTech PhD I.I.T., Mechanical and Industrial Engineering
BHUIYAN, Farina, BEng C'dia, MEng McG., Mechanical and Industrial Engineering
BILODEAU, Yves, BA MA PhD U.Q.A.M., Studio Arts
BIRD, Frederick B., BA BD Harv., PhD G.T.U. (Berkeley), Religion
BIRD, Peter H., BSc PhD Sheff., Chemistry and Biochemistry
BIRON, Pascale, BSc MSc PhD Montr., Geography
BLAIR, Lorrie, BFA MA Ohio, PhD Ohio State, Art Education
BODE, Frederick A., BA George Washington, MA PhD Yale, History
BODUR, Onur H., BAdmin Bogazici, MAdmin PhD Virginia State, Marketing
BOGNAR, Szabolcs E., BComm McG., MBA C'dia, Management
BOLSTER, Stephanie, BFA MFA Br. Col., English
BOLTON, M. Catherine, BA Car., MA Qu., PhD McM., Classics, Modern Languages and Linguistics
BONNEVILLE, Lucie, BA MA C'dia, Psychology BOUCHARD, Paul, BFA C'dia, MA Montr., Education

BOUCHER, Raymond-Marius, BFA C'dia, Theatre
BOUDEWIJNSE, Geert-Jan, MSc Leiden, PhD McG., Psychology
BOUFFARD, Paula, BA MA U.Q.A.M., Études françaises
BOULIANNE, Emilio, BAdmin MBA Laval, PhD H.E.C., CGA Accountancy

BOURJOLLY, Jean-Marie, BSc MSc Idem, MSc Montr., PhD Wat., Decision Sciences and Management Information Systems
BOUSHEL, Robert, BA Acad., MA S. Flor., DSc Boston, Exercise Science
BOYARSKY, Abraham J., BEng ME PhD McG., Mathematics and Statistics
BOYD, Gary, BSc Car., MSc Sask., PhD Br. Col., Education
BRAUER, Aaron, BComm MA C'dia, Arts and Science
BRENNAN, Kit, BA Qu., MFA Alta., Theatre
BRIGHT, Pamela, BA BD Q'ld, MA PhD, Notre Dame (Ind.), Theological Studies
BRODT, Abraham, BSc McG., MBA PhD N.Y.U., Finance
BRODY, Josef, BA MA Charles, PhD Car., Mathematics and Statistics
BROSS, Michael, BA MA PhD Manit., Psychology
BROWN, Grant, BSc Lethbridge, PhD Nfld., Biology
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OTCHERE, Freda, BA Br. Col., MLS McG., Head, Processing/Database and Accounts Maintenance
PERRY, Kathleen, BA Tor., MLS W. Ont, Slide Librarian, Fine Arts
POULIN, Sonia, BA C'dia, MLS McG., Reference/Selection Librarian (Vanier)
REINHART, Melinda, BA Calg., MLIS McG., Reference/Selection Librarian (Webster)
RUBINLICHT, Lillian, BA Sir G. Wms., MLS McG., Assistant Director, Library Personnel
SAUVÉ, Diane, BA C'dia, MLIS Montr., Library Instruction and Reference Subject Librarian
SENDEK, Irene, BA Marianopolis, BLS MLS McG., Assistant Director, User Services
TÉTREAULT, Annie, BA C'dia, MLIS McG., Reference Subject Librarian
THIRLWALL, David, BMus McG., BEd MLS W. Ont., Head, Vanier Library

VILENO, Luigina, BA MLIS McG., Reference/Selection Librarian (Vanier)
WRIGHTSON, Robert, BA Qu., MLS W. Ont., Reference/Selection Librarian (Vanier)

Faculty Part-Time
The following information was updated as of October 1, 2002.
ABBAT, Joanna, Contemporary Dance
ABDUL AL-KHABYYR, Nasyr, Music
ABI-NADER, Georges, Computer Science; Physics
ABRAN, Henri, Études françaises
AGOSTINO, Andrew, Education
AKMAN, Geraldine, Geography
ALAPI, Zsolt, Education
AL-ASHOOR, Raad, Electrical and Computer Engineering
ALLAIRE, Jean-Sébastien, Music
ALLARD, Stéphane, Music
ALNEIRABEIE, Fuad, Cinema
ALTINTAS, Ayhan, Electrical and Computer Engineering
AMERI, Shahriar, Computer Science AMIRAULT, Greg, Music

AMMAR, Ahlem, Education
ANASTASOPOULOS, Susan T., Economics
ANDERSON, Evadne, Education
ANDERSON, Hugh, Journalism
ANDERSON, Janice, Art History
ANDERSON, Matthew, Theological Studies
ANDERSON, Sandra, Exercise Science
ANDREEVSKAIA, Alina, Computer Science
ANDREWS, Alanoly J., Computer Science
ANSARI, Ali, Computer Science
ANTHONY, Elizabeth, Art Education and Art Therapy
ANTONIO, Gary, Music
ANTONOPOULOS-ALEXANDER, Anna, Simone de Beauvoir Institute
APRAHAMIAN, Sima, Simone de Beauvoir Institute; Sociology and Anthropology

APRIL, Anik, Classics, Modern Languages and Linguistics
APUZZO, John, Accountancy
AQUIN, Stéphane, Studio Arts
ARAMAKI, Michiko, Simone de Beauvoir Institute
ARAYA, Kinga, Art History
ARCHER, George, School of Community and Public Affairs
ASHBY, Richard, Marketing
ASKEW, Pamela, English
AUCLAIR, Myra, Classics, Modern Languages and Linguistics

BABINEAU, Dan, Communication Studies
BABINSKI, Bob, Journalism
BAERT, Renée, Studio Arts
BAHSOUN, Wael, Mathematics and Statistics
BANI-MELHEM, Omar, Electrical and Computer Engineering
BARBIERI, Richard, Marketing
BARCLAY, Barbara A., Education
BARKER, Leslie, Exercise Science
BARNES ROSE, Constance, English
BARRAFATO, Anna, Education
BASILE, Paola, Classics, Modern Languages and Linguistics
BAUGNIET, Gabriel, Classics, Modern Languages and Linguistics
BAXTER, Bonnie Jean, Studio Arts
BEAUDET, Jean, Music
BEAUDET, Richard, Music
BEAUDRY, Adèle E., Studio Arts
BELLEAU, Josée, School of Community and Public Affairs
BELTEMPO, Joseph, Psychology
BÉRARD, Michael, Music
BEREZOWSKY, Liliana, Studio Arts
BERGEY, Annie, Études françaises
BERNATCHEZ, Elise, Studio Arts
BEROUAL, Saliha, Études françaises
BERRY, Shawn, Sociology and Anthropology
BERTRAND, Lucie, Theatre
BERUBÉ, Colin, School of Community and Public Affairs
BIFFI, Johanne, Studio Arts
BILOUS, Richard Todd, Computer Science BIRNTHALER, Kerstin, Finance
BISAILLON, Richard P., Political Science
BISSETT, Roshell, Cinema
BLANCHARD, Georgette, Decision Sciences and Management Information Systems
BLANCO FERNANDEZ, Julia, Classics, Modern Languages and Linguistics
BLIGH, Kate, English; Theatre
BODYCOMB, Venetia, Geography
BOGARDI, George, Studio Arts
BOISSINOT, Lucie, Contemporary Dance
BOLDUC, Rémi, Music
BORENSTEIN, Joyce, Cinema
BOTA, Myriane, Finance
BOTTENBERG, Joanna, Classics, Modern Languages and Linguistics; Lonergan University College
BOUCHARD, Marie, Études françaises
BOUCHARD-ULUSOY, Diane, Études françaises

BOULANGER, Marie, Studio Arts
BOZZINI, Stephanie, Music
BRANDL, Eva, Studio Arts
BRANSWELL, Michael Jack, Journalism
BREUER, Robert E., Études françaises
BRISCOE, Ken, Communication Studies
BROCHU, Jacques, Contemporary Dance
BROOKS, Christopher, Geography
BROUILLETTE, Diane, Studio Arts
BROWN, Benson, Mathematics and Statistics
BROWN, Nancy L., Education
BRYAN, Jay, Journalism
BUCHANAN, Craig, Computer Science
BUISSON, Eric, Education
BURMAN, Jennifer, Sociology and Anthropology
BUSUIOC, Sever Sorin, Mechanical and Industrial Engineering
BUTLER, Deidre, Religion
CABREJO, Pedro, Decision Sciences and Management Information Systems
CALDERONI, Sylvie, Classics, Modern Languages and Linguistics; Études françaises
CALDWELL, Christine, Art Education and Art Therapy
CALLEJAS-WILSON, Cristiana, Classics, Modern Languages and Linguistics
CAMPBELL, Dave, Exercise Science
CAMPBELL, Howard John, Management
CAMPBELL, Robert, Accountancy
CAPLAN, Edward, Accountancy
CAPLAN, Marlene, Sociology and Anthropology
CARAYANNIS, Anastasios, Applied Human Sciences
CARDINAL, Philippe, Études françaises
CARDUCCI-SIDORENKO, Elaine, Classics, Modern Languages and Linguistics
CARLEVARIS, Anna, Studio Arts
CARLEVARIS, Karine, Applied Human Sciences
CARLEY, Moira, Lonergan University College
CARPI-LOBATON, Carmen, Classics, Modern Languages and Linguistics
CARUSO, Josie, Classics, Modern Languages and Linguistics
CASSIR, Philip, Education
CHABOYER, Kurt, Engineering and Computer Science
CHAGNON, Ginelle, Contemporary Dance
CHAIMA, Kunjilika, Education
CHALIFOUX, Lisa M., Education
CHAMANADJIAN, Lucia, Classics, Modern Languages and Linguistics
CHAN, Germaine, Accountancy
CHAN, Soukwan, Geography
CHAPMAN, Owen, Communication Studies
CHARRON, Ray, Engineering and Computer Science
CHAVERDIAN, Gregory, Music
CHEASLEY, Elaine, Art History
CHECHILE, Michael, Education
CHEW, Dolores, History
CHIASSON, Blaine, History
CHLOPAN, Scott, Education
CHOQUETTE, Michel, English
CHUPRUN, Ian, Music

CLARINI, Janice, Sociology and Anthropology
CLARK, Dave, Music
CLARKE, Jocelyne, Cinema
CLARKE, K. Steven, Accountancy
CLASSEN, Constance, Sociology and Anthropology
CLAVEAU, C. David, Electrical and Computer Engineering
CLEMENT, Samuel B., Management; Psychology
CLEVELAND, Mark, Marketing
COHEN, Leslie, Management; Psychology
COHEN, Robert, School of Community and Public Affairs
COLEMAN, William, Contemporary Dance
COLLEONI, Pier Luigi, Classics, Modern Languages and Linguistics
CONNOLLY, John, Marketing
CONTER, Alan, Journalism
CONTOGIORGIS, Margaret, Classics, Modern Languages and Linguistics
CONTRERAS, Rosa, Classics, Modern Languages and Linguistics
COOK, Iain D., Communication Studies
CORMAN, Don, Design Art; Digital Image/Sound and the Fine Arts
COWAN, Laura, Education
COX, Robert, Political Science
COYLE, Francis, Theological Studies
CRICHTON, Pearl, Sociology and Anthropology
CRILLY, Chris, Cinema; Communication Studies
CROSS, Daniel, Cinema
CRUICKSHANK, Lyle, Marketing
CUGGY LAPALME, Judy, English
DAIGLE, René, Cinema
DALFEN, Karen, Applied Human Sciences
DALTON, Connie L., Psychology
DANIAL, Mary, Electrical and Computer Engineering
DANINGBURG, Suzanne, Education
DANIS, Jean-Claude, Political Science
DA PALMA, Maria, Economics
DARDICK, Simon, English
DARWISH, Linda, Religion
DAS, Nandita, Accountancy
DAS, Susil K., Electrical and Computer Engineering
DASSIOS, George, Marketing
DAUBNER, Ernestine, Art History
DAVIES, Howard, Design Art
DAVIS, Allan, Education
DAVIS, Mary-Ellen, Cinema
DEBIPARSHAD, Nicki, Economics
DEER, Alec Brian, Religion
DEFENCE, Astrid, Education
DE FREITAS, Jennifer, Design Art
DEL BURGO, Carlos, Études françaises
DELISLE, Michèle, Studio Arts
DEMERS, Diane, Applied Human Sciences
DE MONTIGNY, Luc, Geography
DERFEL, Aaron, Journalism
DESLAURIERS, Pierre, Geography
DESLAURIERS, Roch, Études françaises
DESROSIERS DE LANAUZE, Renée, Management

DE TOURREIL, Savithri, Religion
DEVINS, Rachel, Applied Human Sciences
DE VREEZE, Oleg, Education
DEWAN, Kumar A., Sociology and Anthropology
DICHMANN, Klaus, Chemistry and Biochemistry
DI LILLO, Antoine, Études françaises
DI LULLO, Giovanni, Classics, Modern Languages and Linguistics
DINER, Robyn, Simone de Beauvoir Institute
DION, Yves, Études françaises
DIONNE, Micheline, Études françaises
DIOUF, Ibrahima, Electrical and Computer Engineering
DJABIR, Kambi T., Economics
DOERR, Karin, Classics, Modern Languages and Linguistics
DOIRON, Kathy, Biology
DONAHUE, John S., Classics, Modern Languages and Linguistics
DONYAEE, Mohammad, Computer Science
DORE, Gilbert, History
DORTA, Tomas, Design Art
DOUBT, Bryan, Theatre
DOUCET BOARD, Anne D., Education
DOUGLAS, David, Cinema
DOWNES, Wray, Music
DOYLE, Maureen, English
DROBNICK, Jim, Studio Arts
DUBE, Lakshmi S., Mathematics and Statistics
DUBINSKY, Lon, Studio Arts
DUBOIS, Pauline, Computer Science
DUCKWORTH, Martin, Cinema
DUGOUA, Marie-Chantal, Marketing
DUMA, Ewa, Mathematics and Statistics
DUPRE, Réjean, Management
DUROSEAU, Conrad, Journalism
DUVIEUSART, Bernadette, Études françaises
DZIECIOLOWSKI, Krzysztof, Decision Sciences and Management Information Systems

EBER, Sandra, Cinema
EBRAHIMI KAHRIZSANGI, Mehran, Mathematics and Statistics
ELALI, Wajeeh, Finance
EMERY, Merrilyn, Applied Human Sciences
ENDACOTT, Laura, Studio Arts
ERRUNZA, Marie-Josée, Marketing
FABER, Ruth, Applied Human Sciences
FAKOURI, John, Management
FANCY, David, Theatre
FARAH-HERBERT, Louli, Études françaises
FARRELL, Sean, History
FEDER, Peter, English
FERGUSON, Sean, Music
FERGUSON, Trevor, English
FERRARA, Nadia, Sociology and Anthropology
FILIATRAULT, Patrick, Management
FILIPPOU, Helen, Classics, Modern Languages and Linguistics
FIORENTINO, Jon, English
FISET, John W., Education
FISHER, Jennifer, Studio Arts
FLEURY, Jocelyne, Music
FLOOD TURNER, Janice, Studio Arts
FLYNN, Kevin, English

FONTAINE, René, Cinema
FORD-ROSENTHAL, Angela, Sociology and Anthropology
FORGUES, Michel, Theatre
FRAGOULIS, Anastasia T., English
FRANKLIN, David, Management
FRASER, Judith M., Chemistry and Biochemistry; Biology
FRASER, Kevin, Studio Arts
FREED, Jean, Finance
FRÉGEAU, Pierre, Political Science
FULTON, Diane, Applied Human Sciences
FURSTENAU, Marc, Cinema; Communication Studies

GABRIELE, Sandra, Journalism
GAFFAR, Ashraf, Computer Science
GAL, Otto, Electrical and Computer Engineering
GALINA, Harry Z., Psychology
GALLAGHER, Stephen, Political Science
GALY, Sebastien, Finance
GAMATI, Samia, Geography
GAMOY, Bernard, Studio Arts
GANESH BABU, Thimma V., Electrical and Computer Engineering
GARON, Jacques, Finance
GAUDINE, David, Electrical and Computer Engineering
GAUTHIER, Pierre, Mechanical and Industrial Engineering
GAUTHIER, Vincent, Cinema
GAWARGY, Mumtaz, Electrical and Computer Engineering
GDALEVITCH, Ruth, Sociology and Anthropology
GERICKE, Irene, Art Education and Art Therapy
GERMINARIO, Ralph, Biology
GERVAIS, Leonard, Journalism
GEVOFF, Ivan, Cinema
GHADERPANAH, Sadegh, Computer Science
GHAN, Zelda, Education
GHOBADI, Elham, Chemistry and Biochemistry
GHOTBI, Mohsen, Electrical and Computer Engineering
GILBERT, Gregory, English
GIROLAMI, Margaret Ann, Education
GLUCK, Yael, Sociology and Anthropology
GOLD, Linda, Education
GOMEZ-PERALES, Juan, Studio Arts
GOULET, Erik, Cinema
GOURLAY, Margaret, Communication Studies; Marketing
GOVENDER, Sumanthra, Education
GOYETTE, Louis, Cinema
GRAD, Judith, Applied Human Sciences
GRANT, Anita, Art History
GRAY, Bruce, Applied Human Sciences
GRAY, Daryl, School of Community and Public Affairs
GREEN, Doreen, Political Science
GREENSPAN, Harry, Mathematics and Statistics
GREGOIRE, Pierre A., Art Education and Art Therapy
GRENIER, Bruno, Engineering and Computer Science
GUBBAY-HELFER, Sharon, Religion
GUERRIER, Lenold, Études françaises
GUEVARA, Alberto, Sociology and Anthropology

GUIMONT, Anny, Classics, Modern Languages and Linguistics
GUNDARA, Margaret, Music
GUNNING, Pamela, Education
GUPTA, Dipti, Communication Studies
HABER, Mark, Marketing
HADAYA, Pierre, Decision Sciences and Management Information Systems
HADJINICOLAOU, John, Building, Civil and Environmental Engineering
HAILPERN, Rosalyn, Education
HALL, John L., Management
HANCHERUK, Heather, Art Education and Art Therapy
HANLEY, Jill, School of Community and Public Affairs
HARMAT, Heidi, Classics, Modern Languages and Linguistics
HARNDEN, Bonnie, Art Education and Art Therapy
HARRISON, Edelmera, Education
HARTY, Sean, Theological Studies
HARVEY, Louis, Computer Science
HASSAN, Marwan, English
HAUNSTETTER, Tanya, Marketing
HEFT, Riva, Education
HELOU, Charles, Electrical and Computer Engineering
HENRI, Diane, Accountancy
HERBISON, Philip, Cinema
HEROD, Kena, English
HERRERA, Ricardo, Decision Sciences and Management Information Systems
HERSHORN, Marvin, Political Science
HIGGINS, Ross, Sociology and Anthropology
HILAL, Pierre, Accountancy
HILL, Colin, English
HINA, Manolo Dulva, Computer Science
HIRSCH, Derek, Finance
HIRSCHBERG, Jack Jacob, Psychology
HNATCHUK, James W., Economics
HOLMES, Karla, Education
HONARPISHEH, Farbod, Cinema
HORN, Kahn-Tineta, Simone de Beauvoir Institute
HSU, Yon, Communication Studies
HUANG, Chen F., Education
HUBERT, Claudine, Études françaises
HUDON, Stephen, Management
HUGGINS, Rachel, Sociology and Anthropology
HUGHES, Thomas H., Computer Science
HUNTER, Jesse, Education
HUTCHISON, Taylor, Accountancy
HYJAZIE, Fayez, Electrical and Computer Engineering

ILIESCU, Serban, Computer Science
ISAC, Daniela, Classics, Modern Languages and Linguistics
ISLAM, Md Shafiqul, Mathematics and Statistics
ISLAM, Mohammad, Economics
ISSLEY, Renata, Education
JABABO, Khaled, Computer Science
JACOBSON, Larry, Accountancy
JAGANNATH, Sumithra, Computer Science

JASSIM Raad, Finance
JAY, Dickson, Management
JESSOP, John, Education
JOHNSON, Harlan, Studio Arts
JOHNSTON, Elizabeth, Marketing
JOHNSTON, Louise, Religion
JONES, Francine, Marketing
JORDAN, Randolph, Cinema
JOSEPH, Howard, Religion
JOURDE, Laurence, Études françaises
JUNG, Younchan, Computer Science
KAHANE, Naomi R., Applied Human Sciences
KALMAN, Rica-Judith, English; Marketing KALOGEROPOULOS, Dennis, Psychology
KAMPERIDIS, Lambros, Classics, Modern Languages and Linguistics
KAMTHAN, Pankaj K., Computer Science KANNENGIESSER, Charles, Theological Studies KASLIK, Ibolya, English
KASSABIAN, Hagop, Education
KATATBEH, Qutaibeh, Mathematics and Statistics
KAUFMAN, Barry, Management
KAUSHAL, Ashok, Mechanical and Industrial Engineering
KELLER, Juliana, Studio Arts
KERMANI, Moin, Decision Sciences and Management Information Systems
KHALIL, Antoine, Mathematics and Statistics
KHALIL, Samer, Accountancy
KHOURI, Hala, Études françaises
KILLINGER, Christine M., Applied Human Sciences
KINGDON, Terri, Studio Arts
KINSLOW, Valerie, Music
KIRICENKO, Victoria, Computer Science
KLEIMAN, Larry, Biology
KLEIN, Tobi, Art Education and Art Therapy
KLEPKO, John, Music
KNEUBUHLER, Thomas, Studio Arts
KNUDSEN, Christian, Studio Arts
KOK, Nathalie, Etudes françaises
KORRAI, Deergha Rao, Electrical and Computer Engineering
KOZEL, Vladimir I., Mechanical and Industrial Engineering
KRAUEL, Jerry, Classics, Modern Languages and Linguistics; Education
KRIZ, Ron, Cinema
KROUPNIK, Guennadi, Mechanical and Industrial Engineering
KRUPA, Joanne, Chemistry and Biochemistry
KRUZYNSKI, Anna, School of Community and Public Affairs
KURAS, Christian, Studio Arts
KUSPINAR, Bilal, Political Science
LABELLE, Henri, Applied Human Sciences
LABELLE, Paul, Marketing
LAFONTAINE, Raymond, Theological Studies
LAGACÉ, Eric, Music
LAING, Stephen J., Marketing
LAM, José, Management
LAMBERT, Michel J., Music
LAMONTAGNE, Valerie, Digital Image/Sound and the Fine Arts

LANCTOT, Micheline, Cinema
LANGUAY, Darrah, English
LANOIX, Monique, Philosophy
LANTHIER-O'CONNOR, Sheila, English
LAPLANTE-L'HÉRAULT, Juliette, Études françaises
LARAMÉE, François D., Computer Science
LARDIZABAL, Eddward, Economics
LARIN, Lise-Hélène, Studio Arts
LARUE, Johanne, Cinema
LATENDRESSE, Anne, School of Community and Public Affairs
LATREMOUILLE, Lise, School of Community and Public Affairs
LAUGESEN, Nina, Psychology
LAULY, Jean P., Accountancy
LAURIE-MONACO, Elizabeth, Applied Human Sciences
LAURIN-ANCTIL, Céline, Études françaises
LAUZIĖRE, Abubakr Joël, Études françaises
LAZAR, Barry, Journalism
LAZRAK, Skander, Finance
LEB, Danielle, Études françaises
LECCA, Doina, Education
LEDOUX, Marie-Stéphane, Contemporary Dance
LEDUC, François, Geography
LEE, Mark, Education
LEE, Paul, Accountancy
LEFAVE, Laura J., Studio Arts
LEFEBVRE, Eric, Accountancy
LEFEBVRE, Jean-Pierre, Studio Arts
LEONARD, Gordon, Management
LEPRINCE, Martine, English
LESLIE, Sharon, Applied Human Sciences
LEWIS, Sybil, Applied Human Sciences
LIEBICH, Christine Renée, Études françaises
LISSOUBA, Danièle Bineka, Études françaises
LIZZI, Antoinette, Accountancy
LO, Elsa, Education
LOADER, Alison, Cinema
LOBEL, Mia, Applied Human Sciences
LOW, Shelly, Studio Arts
LOWERISON, Gretchen, Education
LUCHIAN, Horia, Building, Civil and Environmental Engineering
LYNCH, Shaun, Marketing
MAAG, John A., Accountancy
MACCUISH, Derek, Political Science
MACDONALD, David, School of Community and Public Affairs
MACDONALD, Kathleen, Classics, Modern Languages and Linguistics
MACKENZIE, Kenneth, Decision Sciences and Management Information Systems
MACLEAN, Roger, Sociology and Anthropology
MACLEOD KESSIN, Katja, Studio Arts
MADRUGA, Nancy B., Classics, Modern Languages and Linguistics
MAGOR, Susan, Management
MAGWOOD, Debbie, Applied Human Sciences
MAI, Yun, Computer Science
MALIK, Rajesh, Education
MALY, Mary P., Biology
MANCINI, Tony, Decision Sciences and Management Information Systems

MANSFIELD, Elizabeth, Exercise Science MARELLI, Marie-Paule, Études françaises
MARTEL, Claude, Communication Studies
MARTIN, Monique, Music
MARZOUK MAHDY, Mohamed, Building, Civil and Environmental Engineering
MASON, Julie, English
MASTROIACOVO, Thérèse, Studio Arts
MASTROMONACO, Angelo, Accountancy
MATHIEU, Marie-Christian, Communication Studies
MATTA, Rami, Management
MATTHEWS, Kim, Sociology and Anthropology
MAUREL, Mary Lee, Sociology and Anthropology
MCAULEY, John, English
MCAUSLAND, Andrew, Academic Technology
MCBREARTY, Madeleine, Applied Human Sciences
MCCANN, Chris, Music
MCCARTHY, Jason, Finance
MCDONAGH, Patrick, Engineering and Computer Science
MCGIMPSEY, David, English
MCGUIRE, Beverly, Music
MCKAY, John, Communication Studies
MEADOWCROFT, Keith A., History
MEARNS, Robert A., Mathematics and Statistics
MEDICOFF, Mark, Marketing
MENARD, Elise, Theatre
MENZIES, Stephen B., Cinema
MERKEL, Clemens, Music
MEROGLU, Emren, Cinema
METSON, Graham, Studio Arts
MGBEMENA, Uchenna, Mathematics and Statistics
MIA, Mashrur, Computer Science
MIAO, Yu, Education
MICHEL, David, Marketing
MIGONE, Christof, Studio Arts
MIHALKOV, Valery, Cinema
MILKMAN, Lauretta J., Music
MILL, Davina, Art Education and Art Therapy
MIRON, François, Cinema
MITCHELL, David, Design Art
MOAZZAMI, Bakhtiar, Finance
MOGHADDAM, Mahmood K., English
MOLHIM, Mohammad, Mechanical and Industrial Engineering
MONGENOT, Hélène, Études françaises
MOORE, D. Catherine, Geography
MORAN, S. Eva J., English
MOREL, Denise, Education
MORGAN, Jason, Communication Studies
MORIN, Brian, Exercise Science
MORIN, Isabelle, Education
MORIN, Sophie, Études françaises
MORISON, Thomas, English
MORRISON, Craig, Music
MORRISON, Val, Sociology and Anthropology
MOSS BARD, Leah, Education
MOTT, Cathy, Education
MOURALI, Mehdi M., Marketing
MROZ, Stan, Accountancy
MUHAMMAD, Wali, Music
MUKHERJEE, Ritesh, Computer Science
MURRAY, Robert, Studio Arts

NACHFOLGER, Stanley, Political Science
NAGGIAR, Julia, Management
NAKAIDZE, George, Music
NASRALLAH, Dimitri, English
NAYAN, Kamal, Electrical and Computer Engineering
NAZNEEN, Roksana, Sociology and Anthropology
NEBENZAHL, Donna, Journalism
NEMETH, George, Psychology
NICHOLLS, Winston, Economics
NICOLAE, Ioana, Education
NIMARKO, Alfred G., Economics
NIXON, Virginia, Liberal Arts College
NNADOZIE, Alfred, Mathematics and Statistics
NOCHERA-OUIMETTE, Maria-Elena, Classics, Modern Languages and Linguistics
NORVID, Adrian, Studio Arts
NOWAK, Ted, Accountancy
NYVEEN, Lawrence, Journalism
OBUCHOWICZ, Tadeusz, Electrical and Computer Engineering
O'FARRELL, Brenda, Journalism
OLIVERIO, Joseph, Accountancy
O'MEARA, Dan, History
O'ROURKE, Pat, Religion
OUELLET, Pierre, Political Science; Engineering and Computer Science
OXLEY, Dan, Studio Arts
PAINTER, Patricia, Applied Human Sciences
PANT, Bhuvan C., Chemistry and Biochemistry
PAO-MERCIER, Laura, Sociology and Anthropology
PAQUET, Nicole, Art Education and Art Therapy
PAQUETTE, Réal, Études françaises
PASDERMAJIAN, Penney, Sociology and Anthropology
PATTERSON, Jody, Art History
PAVLICIK, Vladimir, Management
PAYETTE, André, Accountancy
PEARCE, Brent, Marketing
PECK, Donald, Engineering and Computer Science
PELLETIER, Guy, Music
PELUSO, Maria, Political Science
PERRELLA, André, Political Science
PETCOFF, Christine, Études françaises
PETERS, Kenneth, Studio Arts
PHILIP, Mayjee, Religion
PICARD, Marc, Education
PIGEON, Elaine, Engineering and Computer Science
PINSONNEAULT, Michael, Communication Studies; Music
PLAIN, Odile, Études françaises
PLANT, John, Contemporary Dance; Music
POCOCK GOLDMAN, Dorothy M.E., Chemistry and Biochemistry
POIRIER, Isabelle, Contemporary Dance
POLLAK, Roland, Cinema
POTTER, Annie, Education
POUTANEN, Mary Anne, History
PRASHAD, Ishwar, Political Science

PROMIES, Marina, Education
PROUD, Ronald, Education
PROULX, Olga J., Geography
PROVENCHER, Pierre, School of Community and Public Affairs
PRUSKA-CARROLL, Marika, Political Science
PUSHKAR, Pushkar, Political Science
RABINOVITCH, Bella, Art History
RADECKI, Brigitte, Studio Arts
RAHMAN, Naz, Finance
RAJALINGHAM, Chellaiyah, Building, Civil and Environmental Engineering; Mechanical and Industrial Engineering
RAMLOCHAND, Ramona, Studio Arts
RAUDSEPP, Karl, Music
RAY, Karen, Political Science
REEVES, Shelley, Studio Arts
REGLER, Erwin, Design Art; Studio Arts
REHMER, Moira, Education
REID WALSH, Jacqueline, English
REILLY, Rosemary, Applied Human Sciences
RENTERIA, Nelly, Classics, Modern Languages and Linguistics
RHEAULT-BOISSE, Pascal-Andrée, Études françaises
RHODES, Barbara M.J., Mathematics and Statistics
RICHARD, Jean Yves, Études françaises
RILEY, June, Finance
RING, Nancy, Studio Arts
RIOL, Hélène, Biology
RITCHIE, Jeanette, Art Education and Art Therapy
ROBERGE, Laurent L., Studio Arts
ROBERT, Sylvain, Design Art
ROBINS, Ross, Management
RODINOS, Evelyn, Applied Human Sciences
ROGERS, Randal A., Art History
ROIG, Denise, Journalism
ROLLO, Michael, Cinema
ROMANELLI, Franco, Economics
ROMANELLI, Jack, Journalism
ROMANO, Santo, Digital Image/Sound and the Fine Arts; Design Art
ROOP, Frank, Education
ROSENBERG, Michael M., Sociology and Anthropology
ROSENSTEIN, Steven, Education
ROSS, Yaron, Music
ROSSIN-ARTHIAT, Maurice Fernand, Accountancy; Decision Sciences and Management Information Systems
ROSSNER, Peter, Education
ROTSTEIN, Marc David, Classics, Modern Languages and Linguistics
ROULET, Kathryn, Geography
ROURKE, Martin, Education
ROWE, Brenda, Simone de Beauvoir Institute
ROYLE, Phaedra, Classics, Modern Languages and Linguistics
ROZAHEGY, Mark P., Engineering and Computer Science; Philosophy
RUA VARGAS, Alvaro Adolfo, Mathematics and Statistics
RUBINOFF, Leah, Education

RUDDY, James W., Mathematics and Statistics
RUSS, Stephanie, Studio Arts
RUSSEL, Trinette, History
RUTTENBERG, Barbara, Sociology and Anthropology
RYAN, D'Arcy, History
SAADE, Raafat G., Decision Sciences and Management Information Systems
SABA, Soraya, Classics, Modern Languages and Linguistics
SABOUR, Mohammad H., Building, Civil and Environmental Engineering
SACK, Joanabbey, Art Education and Art Therapy
SAHNI, Isher P., Sociology and Anthropology
SAID, Aminu, Economics
SAKS, Robby D., Marketing
SALLIT, Marie, Études françaises
SAMSON, Louise, Music
SANDMARK, Peter, Cinema
SANTANA, Carlos-Luis, Computer Science
SARNA, Lazar, Finance
SAUDNY-UNTERBERGER, Helga, Biology
SAXENA, Govind P., Physics
SCHACTER, Jonathan, Accountancy
SCHULMAN, Stanley, Accountancy
SCHWAB, Timothy, Communication Studies
SCHWARTZ, Gary, Music
SCIRETTA, Martine, Classics, Modern Languages and Linguistics
SCLATER, Jennifer, Education
SCOTT, Gail, English
SCOTT, Susan, Studio Arts
SEASHORE, Edith, Applied Human Sciences
SEGAL, Marcia, English
SEN, Debaraj, Decision Sciences and Management Information Systems
SERDOUK, Hocine, Geography
SEREDYNSKA, Tetiana, Education
SHANTZ, Mel, Education
SHARIFI, Shahram, Mechanical and Industrial Engineering
SHARMAN, Lydia, Design Art
SHAWWA, Noor, Management
SHEHAB ELDEEN, Tariq, Building, Civil and Environmental Engineering
SHEN, Tianxiang, Computer Science
SHEPHERD, Andrea, Journalism
SHIN, Minna Re, Music
SHULMAN, Ami, Contemporary Dance
SHULMAN, Deborah, History
SILAS, Mary, Engineering and Computer Science
SIMARD, Marie C., Studio Arts
SIMON, Karen, Études françaises
SIMS, Marilyn, English
SINCLAIR, Craig, English
SINGER, Ken, Decision Sciences and Management Information Systems
SISTI, Anthony, English
SLAKO, France, Psychology
SMALRIDGE, Brian, Education
SMITH, Allan, Applied Human Sciences
SNYDER, Joseph, Psychology
SOLOV, Roumen, Management
SOMERS, Bertram A., Economics

SOROKA, Robert, Marketing
SOTIRON, Michael M., Journalism
SPACAGNA, Giuseppe, Classics, Modern Languages and Linguistics
SPECTOR, Avi, Cinema
SPENCE, Alwin C., Education; Psychology
STAFFORD, Joan, Applied Human Sciences
STANOPRUD, Roxamme, Economics
STATEIKINA, Irina, Electrical and Computer Engineering
STEENBERGEN, Candis, Simone de Beauvoir Institute
STEINSON, Elizabeth H., Marketing
STEVENS, Laird, English
ST. LAURENT, Bernard, Journalism
STOCKLAND, Peter, Journalism
STONE, Anne, English
ST-ONGE, Jean, Marketing
ST-PIERRE, Armand, Decision Sciences and Management Information Systems
SULLIVAN, Françoise, Studio Arts
SULLIVAN BROWN, Sheila, Education
SUNAHARA, Geoffrey, Chemistry and Biochemistry
SUNDARAM, Chandar, History
SWEET, Frederick, Applied Human Sciences
SZIGETVARI, Zsolt, Marketing; Communication Studies

TAGHADDOSI, Farzad, Mechanical and Industrial Engineering
TAILLEFER, Chris, Electrical and Computer Engineering
TALLA, Malleswara Rao, Computer Science
TAMAS, Steven, Accountancy
TAMBOR, Henry, Marketing
TARDIF, Sylvie, Chemistry and Biochemistry
TATLOW, Frederick, Education
TEOLI, Maria-Luisa, Classics, Modern Languages and Linguistics
THÉBERGE, Jean, Cinema
THEODOSIADIS, Francisco, Classics, Modern Languages and Linguistics
THÉRIAULT, Madeleine, Music
THERRIEN, Michel-Charles, Education
THIEL, Larry H., Computer Science
THOMPSON, Shelley, Education
THOMSON, Shannon, Music
TIEPOH, Moses, Economics
TITUS, Kerly, Computer Science
TIWARI, Umanath, Mathematics and Statistics
TODD, Barbara, Studio Arts
TODD, Brad, Digital Image/Sound and the Fine Arts
TON-THAT, Minh-Tan, Mechanical and Industrial Engineering
TORRES-JIMENEZ, Christian, Mathematics and Statistics
TOTARO, Donato, Cinema
TREMBLAY, Francine, Sociology and Anthropology
TREMBLAY, Michel T., Political Science
TRUDEL, Gisèle, Digital Image/Sound and the Fine Arts
TRUSZKOWSKI, Robert, Studio Arts
TSOUBLEKAS, George, Economics
TURGEON, Alain, Music

TURNBULL, Robert, Psychology
TURNER, David, Music
TUROVSKY, Eleonora, Music
TZENOV, Petre, Mechanical and Industrial Engineering

ULLMANN, François-René, Études françaises
UPADHYAYA, Priyankar, Political Science
USITALO, Steven, History
VACCARO, Joey, Accountancy
VALELA, David, Accountancy
VALLADARES-RUIZ, Patricia, Classics, Modern Languages and Linguistics
VALLELY, Anne, Sociology and Anthropology
VAN FOSSEN, Rachael, Theatre
VAN GRIMDE, Isabelle, Contemporary Dance
VAUCHER, Philippe, Cinema
VÉRONNEAU, Pierre, Cinema
VIETGEN, Peter, Art Education and Art Therapy
VILLEMURE, Marc, Music
VINCI, Mike, Education
VIVIAN, David, Theatre
VO, Ngoc Diep, Building, Civil and Environmental Engineering
VUKOV, Tamara, Communication Studies
WADE, Anne, Education
WAHHAB, Monir, Finance
WALKER, Shirley A., Applied Human Sciences
WALSH, Marie Ann, Applied Human Sciences
WASSER, Michael, History
WATERS, David, Journalism
WEBB, Edward, Computer Science
WENG, Jian Feng, Electrical and Computer Engineering
WERBIN, Kenneth, Communication Studies
WHATLING, Michael, Education
WILLMER, Andrew, Theatre
WILSON, James, English
WINIKOFF, Steven M., Computer Science
WONG, Mary Sui Yee, Studio Arts
WONG, Stephen, Finance
WONG, William, Mechanical and Industrial Engineering; Computer Science
WOODROW, Anna, Sociology and Anthropology
WORENKLEIN, Abe, Education
WRIGHT, David, English
XU, Lugang, Computer Science
YACOUB, Rita, Computer Science
YAN MILLER, Mindy, Studio Arts
YAROSHEVSKY, Michael, Cinema
YU, Chiu L., Computer Science
YU, James K., Economics
ZAMORANO, Daniel, Classics, Modern Languages and Linguistics
ZHAO, Jia, Computer Science
ZHAO, Zhizi, Computer Science
ZHU, Jianfei, Computer Science
ZIANNIS, Vasiliki B., Accountancy
ZIELINSKI, Gerald, Communication Studies
ZINEGYI, Alex P., Marketing
ZYLBERBERG, Sonia, Religion

| Retired Full-Time | AMIT, Zalman, BA PhD McG., Psychology | Rafik A., BEng Alexandria, MEng PhD |
| :---: | :---: | :---: |
| Faculty | BABA, Vishwanath V., BEng Madr., MBA W. III., PhD Br. Col., Management | McG., Ing, Mechanical and Industrial Engineering |
| 2002 Retirements | DIUBALDO, Richard J., BA MA McM., PhD W. Ont., History | PARC, Pierre, LèsL DES Paris, Études françaises |
|  | GIGUÈRE, J. Charles, BEng McG., MEng PhD N.S.T.C., Electrical and Computer | SERAGANIAN, Peter, BA McM., MA PhD Dal., Psychology |
|  | Engineering <br> HABASHI, W.G., BEng MSc McG., PhD Cornell, | SHARMAN, Lydia, MA C'dia, PhD R.C.A., Design Art |
|  | Mechanical and Industrial Engineering | SORFLEET, John R., BA MA Manit., PhD New Br., English |
|  | JANKOWSKI, Louis W., BSc Queen's Coll. (N.Y.), MA PhD Mich., Exercise | TAYLOR, Marilyn, BA Sask., MA Wis., PhD Tor., Applied Human Sciences |
|  | Science | TILAK, Shrinivas, BA C'dia, BPharm Nag., MA |
|  | KRAKOW, Kalman I., BEng McG., MS Cal. Tech., Ing, Mechanical and Industrial | C'dia, PhD McG., Religion <br> VAN NUS, Walter, BA MA PhD Tor., History |
|  | Engineering <br> MacKAY, Ronald, MA Aberd., PhD Montr., <br> TESL (Applied Linguistics) |  |
| 2001 Retirements | ACLAND, C. Derek, BComm MBA Qu., PhD | LIGHTBOWN, Patsy M., BA N. Carolina, MA |
|  | N. Carolina, CA, Accountancy <br> ALAGAR, Vangalur S., BA MSc Madr., MA N.Y. | Yale, MEd PhD Col., TESL (Applied Linguistics) |
|  | State, PhD McG., Computer Science ARBUCKLE-MAAG, Tannis Y., BA Manit., MA | MARTIN, Graham, BSc MSc New Br., Ing, Computer Science |
|  | PhD Tor., Psychology | McGOWN, K. Lee, BA MBA Lamar, PhD N. |
|  | BARLOW, I. Max, BA Wales, MA Cinc., PhD | Texas State, Marketing |
|  | McG., Geography | SHINGHAL, Rajjan, BE Burd., MTech Kan., |
|  | BRIAN, Michael, BA MA Oxf., PhD Montr., English | MMath Wat., PhD McG., Computer Science |
|  | CROSSMAN, Allan, BA MA PhD Penn., Music HAYES, Jeremiah F., BEE Manhattan Coll., MS N.Y., PhD Calif. (Berkeley), Electrical and Computer Engineering | TADDEO, Donat J., BA Loyola, MA S. Calif., PhD Stan., Communication Studies |
| 2000 Retirements | BRESLAW, Jon A., BA MA Camb., PhD Calif. (Berkeley), Economics | LONG, Robert A., BComm Br. Col., MBA Wash., CA, Accountancy |
|  | GOLDSMITH, Bernice, BA C'dia, Social Aspects Engineering | McEVENUE, Sean E., BA LPh Montr., MA Halifax, STL Montr., SSL SSD Rome, |
|  | GOLLNER, Andrew B., BA Loyola, MA Car., PhD Lond. Sch. of Econ., Political Science | Theological Studies <br> SHEININ, Rose, PhD Tor., DSc Acad., DHumLett Mt. St. Vin., Biology |
|  | GRAY, Thomas, BA MA McM., PhD S. Fraser, Psychology | SMITH, Ronald A., BA BEd MSc PhD Tor., Education |
|  | HERMAN, André, BA Polish State Film \& Theatre Acad., Professional Dip Inst. des | SZAMOSI, Geza, DSc Hungarian Acad. of Sciences, PhD Bud., Science |
|  | Hautes Études Cinématographiques, Paris, Cinema | College <br> TEE, Oswald S., BSc Leic., MSc McM., PhD E |
|  | KETTERER, David, BA Wales, MA Car., DPhil Sus., English | Anglia, Chemistry and Biochemistry |
| 1999 Retirements | BERTRAND, Charles L., BA Western Wash., MA Ore., PhD Wis., History | PECHTER, Edward, BA Cornell, MA PhD Calif. (Berkeley) English |
|  | BRENDER, William J., BA MSc PhD McG., Psychology | PHILMUS, Robert M., BA Brown, PhD Calif. (San Diego), English |
|  | HILL, Harry J.C., MA Aberd., English | SEN, Joya, BA Calc., MA Jad., MA PhD Tor., |
|  | JANOWITZ, Tilly, BA MA Prague, Communication | Management |
|  | Studies | SERPONE, Nick, BSc Sir G. Wms., PhD |
|  | McDEVITT, Robert S., Journalism | Cornell, Chemistry and Biochemistry |
|  | MOORE, James W., BA Car., MA Tor., Political Science |  |

AMIT, Zalman, BA PhD McG., Psychology BABA, Vishwanath V., BEng Madr., MBA W. III., PhD Br. Col., Management DIUBALDO, Richard J., BA MA McM., PhD W. Ont., History N.S.T.C., Electrical and Computer Engineering
HABASHI, W.G., BEng MSc McG., PhD Cornell, Mechanical and Industrial Engineering
JANKOWSKI, Louis W., BSc Queen's Coll. (N.Y.), MA PhD Mich., Exercise Science
KRAKOW, Kalman I., BEng McG., MS Cal. Tech., Ing, Mechanical and Industrial Engineering
MacKAY, Ronald, MA Aberd., PhD Montr., TESL (Applied Linguistics)

ACLAND, C. Derek, BComm MBA Qu., PhD N. Carolina, CA, Accountancy

ALAGAR, Vangalur S., BA MSc Madr., MA N.Y. State, PhD McG., Computer Science PhD Tor., Psychology
BARLOW, I. Max, BA Wales, MA Cinc., PhD McG., Geography
BRIAN, Michael, BA MA Oxf., PhD Montr., English
CROSSMAN, Allan, BA MA PhD Penn., Music
HAYES, Jeremiah F., BEE Manhattan Coll., MS N.Y., PhD Calif. (Berkeley), Electrical and Computer Engineering

BRESLAW, Jon A., BA MA Camb., PhD Calif. (Berkeley), Economics Engineering
GOLLNER, Andrew B., BA Loyola, MA Car., PhD Lond. Sch. of Econ., Political Science Psychology
HERMAN, André, BA Polish State Film \& Theatre Acad., Professional Dip Inst. des Hautes Études Cinématographiques, Paris, Cinema Sus., English

BERTRAND, Charles L., BA Western Wash., MA Ore., PhD Wis., History
BRENDER, William J., BA MSc PhD McG., Psychology
HILL, Harry J.C., MA Aberd., English
JANOWITZ, Tilly, BA MA Prague, Communication Studies
McDEVITT, Robert S., Journalism Science

LONG, Robert A., BComm Br. Col., MBA Wash., CA, Accountancy Halifax, STL Montr., SSL SSD Rome, Theological Studies nald A, BA B Education Sciences, PhD Bud., Science Anglia, Chemistry and Biochemistry ,
(San Diego), English
SEN, Joya, BA Calc., MA Jad., MA PhD Tor., Management Cornell, Chemistry and Biochemistry

ANDERSON, Perry D., BA MSc W. Ont., PhD Ore. State, Biology
CAWLEY, Richard, BA Manit., MS Flor., EdD Tor., Applied Human Sciences
COHEN, Maurice, BSc McG., PhD Calif. (Berkeley), Mathematics and Statistics
COLEBROOK, Lawrence D., BSc MSc PhD Auck., Chemistry and Biochemistry
DHAWAN, Kailash C., BA MA Panj.(1), MBA Ore., PhD N.Y., Marketing and International Business
GEDDES, Gary, BA Br. Col., MA PhD Tor., English
GRACOVETSKY, Serge A., Eng(Physics) Lausanne, PhD Br. Col., Electrical and Computer Engineering
HUBBARD, William H., BA Ore., MA PhD Col., History
KIPLING, Arlin L., BEng Sask., MSc McG., PhD Exe., Physics
KOMODA, Melvin K., BA MA Hawaii, PhD York (Can.), Psychology

KOVATS, Thomas A., BSc Georgetown, PhD Johns H., Communication Studies
KRAUSE, Jerome C., BFA Layton Sch. of Art, MFA Cranbrook Acad. of Art, Studio Arts
LOSIQUE, Serge, LèsL DES DU Paris, Études françaises
POTEET, Lewis J., AB Bethany Nazarene, MA Okla., PhD Minn., English
SBROCCHI, Frank L., MBA W. Ont., PhD C'dia, RIA/CMA, Accountancy
THULASIRAMAN, Krishnaiyan, BE MSc Madr., PhD I.I.T. Madras, Electrical and Computer Engineering
TRESIERRA, Julio, BA Catholic, Lima, Peru, MA PhD Notre Dame (Ind.), Sociology and Anthropology
UPSHUR, John A., BA Yale, MA PhD Mich., TESL (Applied Linguistics)
VASIL, Alex, BComm LA McG., CA, Accountancy
WISE, Roy A., BA MA Calif. State, PhD McG., Psychology

## Equivalents index

## FACULTY OF ARTS AND SCIENCE

Curriculum changes in the Faculty will affect some of the entries in the following list. Students should consult with their program adviser if they already have credits for a course which may be equivalent to another.

Students who have taken a given course under an old number may not repeat it for credit under an equivalent number.

NOTE: The use of " $C$ " in the course prefix is discontinued. Unless otherwise indicated, a course previously prefixed with a C is equivalent to the identically numbered one without the C prefix.

NOTE: For old course numbers used prior to 1980-81, see Undergraduate Calendar 1984-85, or consult a program adviser.

| Course | Old Numbers and Equivalents | Course | Old Numb | and Equivalents |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Anthropology |  | 253 | APSS 353 | APSS 453 |  |
| 202 . . . . . . . C211 |  | 254 | APSS 354 | . APSS 454 |  |
| 221 | . 421 | 256 | APSS 356 | APSS 456 |  |
| 270 | . 370 | 260 | LESR 261 | LESR 250 | LEIS C250 |
| 303 \} | C362 | 270 | APSS 250 |  | LEIS C393 |
| 304 \} | C362 | 281 | LESR 281 | LESR 393 |  |
| 311 | . . 368 | 310 | LESR 210 |  |  |
| $\left.\begin{array}{l}311 \\ 312\end{array}\right\}$ | 310 | $\left.\begin{array}{l}314 \\ 220\end{array}\right\}$ | APSS 31 | APSS 413 |  |
| 315 | $\left\{\begin{array}{l}\text { SOCI } 313 \\ \text { SOCI } 314\end{array}\right.$ | $\left.\begin{array}{l}316 \\ 220\end{array}\right\}$ | APSS 463 |  |  |
| 323 | . . . . 398X | 319 ) | $\{$ APSS 318 | $\left\{\begin{array}{l}\text { APSS } 418 \\ \text { APSS } 419\end{array}\right.$ |  |
| $\left.\begin{array}{l}370 \\ 371\end{array}\right\}$ | C369 | 323 | LESR 398N |  |  |
| 371 | C469 | 330 | . . APSS 331 | . . APSS 431 |  |
| 402 $\}$ |  | 333 | LESR 3980 |  |  |
| 421 | 426 | 340 | LESR 340 |  |  |
| 422 \} |  | 350 | LESR 350 |  |  |
| 423 \} | 459 | 351 | APSS 450 | $\left\{\begin{array}{l} \text { APSS } 451 \\ \text { APSS } 452 \end{array}\right.$ |  |
| 424 |  | 355 | APSS 455 |  |  |
| 430 | 498E | 360 | LESR 360 |  |  |
| 431 | $\{401$ | 361 | LESR 361 | LESR C250 | LEIS C342 |
|  | 402 | $\left.\begin{array}{l} 371 \\ 380 \\ 382 \end{array}\right\}$ | LESR 371 |  |  |
| 433 | 432 |  | APSS 490 |  |  |
| 440 | 306 |  |  |  |  |
| 461 \} | 460 | 381 . . . . LESR 381 |  |  |  |
| 462 | 4 | $\left.\begin{array}{l}382 \\ 380\end{array}\right\}$ | APSS 490 |  |  |
| 471 | 340 | 380 |  |  |  |
| 495 | . . C499 | 383 | LESR 481 |  |  |
|  |  | 420 | APSS 420 | APSS C421 |  |
|  |  | 421 | LESR 420 |  |  |
| Applied Human Sciences |  | 422 | LESR 399A |  |  |
| $\left.\begin{array}{l}220 \\ 314\end{array}\right\}$ | APSS $313 . . . . . .$. APSS 413 | 427 | . LESR 427 | . . . LEIS C426 |  |
|  |  | 431 | LESR 431 | . . LEIS C430 |  |
| 220 | APSS 463 | 432 | LESR 432 |  |  |
| 316 |  | 436 | . LESR 464 | . . . LEIS C464 |  |
| 220 | \{ APSS 318 \{ APSS 418 | 440 | . APSS 440 | . . APSS C441 |  |
| 319 | APSS 419 APSS 419 | 444 | LESR 336 |  |  |
| 225 | APSS 415 | 450 | LESR 450 |  |  |
| 230 | APSS $240 \quad$ APSSS C355 $\}$ | $\begin{aligned} & 460 \\ & 485 \end{aligned}$ | APSS 460 |  |  |
| 232 | APSS 240 APSS C356 |  | LESR 485 |  |  |
| 241 | LESR 241 . . . . . . . LEIS C241 | 490 | LESR 490 | . . LEIS C490 |  |
| 245 .. | APSS 399E | 490 | . LESR 491 | . . . LEIS C491 |  |





| Course | Old Numbers and Equivalents | Course | Old Numbers and Equivalents |
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| Exercise Science |  | 358 . . . . . . . . . C355 |  |
|  | . 303 | 359 | . . . . C355 |
|  | $\left\{\begin{array}{l} \mathrm{C} 215 \\ \mathrm{C} 315, \mathrm{C} 316 \\ \mathrm{C} 413, \mathrm{C} 415 \end{array}\right.$ | 360 | $\left\{\begin{array}{l}361 \\ 362\end{array}\right.$ |
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| 218 | . $308\left\{\begin{array}{l}\text { C309 } \\ \text { C310 }\end{array}\right.$ | 377 | . . . . . 371 |
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| 221 | $\left\{\begin{array}{l}\text { BIOL } 222 \\ \text { PSYC } 315\end{array}\right.$ | 403 | . . 405 |
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| 262 . . . . . . . . . . . . . C 337 |  | 458 | . .... 498K |
| 263 . . . . . . . . . . . . 335 |  | 472 | $\left\{\begin{array}{r}372 \\ 4982\end{array}\right.$ GEEL 4980 |
| 270 . . . . . . . . . . . . 370 |  | 474 ........... 498R .... GEOL 498C |  |
| 271 . . . . . . . . . . . 470 |  |  |  |
| 272 .............. 472 |  | 491 | . URBS 491 |
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| 380 . . . . . . . . . . . 403 . . C402 . . 498F |  |  |  |
| 390 . . . . . . . . . . . 3981 |  |  |  |
| 414 ............ . C317 |  | German |  |
| 422 .............. 404 . . C401 . . 498K |  | 200 or 201 or 202 | or 202 ( $\begin{array}{r}210 \\ 211\end{array}$ |
| 438 .............. 339 |  |  | or 202 211 |
| 449 .............. 436 |  | 240 or 241 or 242 | or $242\left\{\begin{array}{r}250 \\ 251\end{array}\right.$ |
| 452 ............ . 498 S |  |  | or 242251 |
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| 276 | . . C271 | 219 | . CLAS C230 |
| 290 | \{ 211 | 221 | . CLAS C231 |
|  | $\{271 \ldots . . .275,276$ | 223 225 | CLAS C240 <br> CLAS C242 |
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| $353 \ldots . . . . . .$. C356 |  | 304 \} |  |



| Course Old Numbers and Equivalents |  | Course Old Numbers and Equivalents |  |
| :---: | :---: | :---: | :---: |
| ACTU 457 | MATH 428 | STAT 450 | MATH 454, MATH C345 |
| ACTU 486 | MATH 429 | STAT 452 | . . MATH 353 |
| MAST 217 | MATH 216, COMP 238 | STAT 460 | . MATH 443 |
| MAST 218 | MATH 262, MATH 264, MATH 344 | STAT 461 | . . MATH 437 |
| MAST 219 | MATH 263, MATH 265, MATH 345 | STAT 480 | . MATH 445 |
| MAST 221 | MATH 242, STAT 249 |  |  |
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| STAT 449 | MATH 451 | $470 \ldots$. | 410 |


| Course | Old Numbers and Equivalents | Course | Old Numbers and Equivalents |
| :---: | :---: | :---: | :---: |
| 473 ... | .. 412 | 392 .. | ... 376 |
| $474 \ldots$ | .. 417 | 393 .. | ... 378 |
| 487 ... | . . 467 | 394 . | ... 385 |
| 488 ... | .. 468 | 422 . | . . 359 .... . . 451 |
| 489 | 449 | 423 .. | ... 417 |
|  |  | 424. | . .. 431 |
|  |  | 433 | . 470 |
| Physics |  | 435 | . 475 |
| 245 . . | 243 | 438. | . 453 |
| 290 | $\left\{\begin{array}{l}295 \\ 296\end{array}\right.$ | 480 .. | ... 462 |
|  |  | 481 . | . 432 |
| 292 ...... 397 |  | 482 . | ... 434 |
| 346 ...... 344 |  | 484 | . 437 ...... 436 |
| $352 \ldots . . .$. |  |  |  |
| 353 ...... 354 |  | Psychology |  |
| 458 ...... 456 |  |  |  |
|  |  |  | C391 |
|  | 495 | 281 | . C392 |
|  |  | 318 | 384 |
| Political Science |  | 322 |  |
| 202 | $\left\{\begin{array}{l}201 \\ 203\end{array}\right\} 200$ | $\left.\begin{array}{l}323 \\ 324\end{array}\right\}$ | 339 |
| 204 |  | 325 | 398B |
|  | 250 | $\left.\begin{array}{l}326 \\ 327\end{array}\right\}$ | 336 |
| 205 | 210 | $\left.\begin{array}{l}331 \\ 332\end{array}\right\}$ | 333 |
| 206 | . 271 | $\left.\begin{array}{l}332 \\ 334\end{array}\right\}$ | 333 |
| 211 | . 353 | 335. | 3981 |
| 307 | . 317 | 343 ) |  |
| 309 | . 275 | 344 \} | 342 |
| 310 | 327 | 346 | 345 |
| $\left.\begin{array}{l}314 \\ 316\end{array}\right\}$ | 334 | 347 349 |  |
| 319 | . 233 | 350 \} | 348 |
| 324 | . 231 | 352 | 351 |
| 326 | . 314 | 353 ) | 351 |
| 328 | . . 316 |  | \{ 357 |
| 330 | . 260 | 358 | $\left\{\begin{array}{l}360 \\ 363\end{array}\right.$ |
|  | . 340 |  | -363 |
| 338 | ... $412\left\{\begin{array}{l}\text { C411 } \\ \text { C413 }\end{array}\right.$ | 359 | - 363 |
|  | ... 230 C413 | 362 | $\left\{\begin{array}{l}357 \\ 360\end{array}\right.$ |
| $\left.\begin{array}{l}349 \\ 352\end{array}\right\}$ |  | 365 | $\left\{\begin{array}{l}357 \\ 300\end{array}\right.$ |
|  | 336 | 365 | $\left\{\begin{array}{l}360 \\ 357\end{array}\right.$ |
| 350 | $\left\{\begin{array}{l}241 \\ 243\end{array}\right\} 240 \ldots \ldots 350$ | 367 | $\left\{\begin{array}{l}357 \\ 360 \\ 390\end{array}\right.$ |
| 364 | .. 273 | 368 370 | 390 |
| 366 | $\left\{\begin{array}{l}343 \\ 345\end{array}\right.$ | $\left.\begin{array}{l}370 \\ 373\end{array}\right\}$ | 330 |
|  | ( 345 | 379 | . C391 |
| 368 |  | 385 | 375 |
| 372 | $\left\{\begin{array}{l}382 \\ 383\end{array}\right.$ | 386 391 | 390 |
|  | ( 474 | 392 | 364 |
| $\left.\begin{array}{l}376 \\ 378\end{array}\right\}$ | 374 | 393 ) | 364 |
|  | 374 | 395 | 393 |
| 379 | $\left\{\begin{array}{l}346 \\ 348\end{array}\right.$ | $\left.\begin{array}{l}396 \\ 397\end{array}\right\}$ | 366 |
| 380 | . 360 | 421 | . . 420 |
| 382 | 372 | 422 | . 420 |
| 383 | 372 | 436 | . 438 |
| 384 | . . . 370 | 439 .. | . 437 |




## JOHN MOLSON SCHOOL OF BUSINESS

NOTE A The use of this note after certain course descriptions indicates that there exists an equivalent course and the students who have credits for this equivalent course may not take the listed course for credits. To find out the equivalents to the listed course refer to the index below.

NOTE C The use of this note after a course description indicates that with the permission of the Department a student may take the listed course twice for credits provided that a different subject is dealt with the second time.



## FACULTY OF FINE ARTS

NOTE A The use of this note after certain course descriptions indicates that there exists an equivalent course and the students who have credits for this equivalent course may not take the listed course for credits.

Equivalences prior to 1977-78 are not listed below. For courses with indicated equivalences which are not listed below consult either the Department Office, the Office of Student Affairs, Faculty of Fine Arts or the Office of the Registrar.

The use of this note after a course description indicates that the course may be repeated for credit. However, either the number or the letter preceding the number must differ.

| Course Old | ers and Equivalents | Course | Old Numbers and Equivalents |
| :---: | :---: | :---: | :---: |
| Art Education |  | ARTH 388 | ARTH 282 |
| ARTE 220 \} | ARTE 200 | ARTH 397 | . . ARTH 410 |
| ARTE 230 ) | ARTE 200 | ARTH 400 | . . ARTH 484 |
| ARTE 320 \} | ARTE 300 | ARTH 401 | . . ARTH 495 |
| ARTE 330 | ARTE 300 | ARTH 402 | .... ARTH 415 |
| ARTE 352 \} | ARTE 430 | ARTH 434 | ...... ARTH 267, C234 |
| ARTE 354 | ARTE 430 | ARTH 499 | . .... ARTH 480 |
| $\left.\begin{array}{l} \text { ARTE } 432 \\ \text { ARTE } 434 \end{array}\right\}$ | ARTE 400 |  |  |
|  |  | Cinema |  |
|  |  | FMAN 202 | .. FMAN 312, CINE C312 |
| Art History |  | FMAN 214 | . FMAN 314 |
| ARTH 200 | ARTH 284, 280, 281 | FMAN 224 | . FMAN 324 |
| ARTH 260 | ARTH 220 | FMAN 254 | . FMAN 214 |
| ARTH 262 | ARTH 347 | FMAN 305 | . . FMAN 302, 303, 304, 313 |
| ARTH 263 | ARTH 348 | FMAN 316 | . ...... FMAN 498E |
| ARTH 264 | ARTH 320 | FMAN 319 | . FMAN 498B |
| ARTH 266 | ARTH 322 | FMAN 352 | FMAN 498H |
| ARTH 267 | ARTH 234, C234 | FMAN 402 | ...... FMAN 414, CINE C414 |
| ARTH 268 | ARTH 234 | FMAN 446 | , 447 .. FMAN 445, CINE C436 |
| ARTH 290 | ARTH 210 | FMAN 448 | . . CINE C428 |
| ARTH 350 | ARTH 320 | FMAN 449 | . . CINE C429 |
| ARTH 352 | ARTH 322 | FMPR 231 | . CINE C311 |
| ARTH 360 | ARTH 339 | FMPR 332 | . . . . . . CINE C411 |
| ARTH 361 | ARTH 339 | FMPR 334 | . CINE C334 |
| ARTH 362 | ARTH 440 | FMPR 335 | . CINE C335 |
| ARTH 363 | ARTH 441 | FMPR 337 | . . CINE C437 |
| ARTH 364 | ARTH 342, 442 | FMPR 338 | . . FMPR 342 |
| ARTH 365 | ARTH 443 | FMPR 339 | . CINE C433 |
| ARTH 366 | ARTH 343 | FMPR 340 | . FMPR 242 |
| ARTH 367 | ARTH 455 | FMPR 341 | . CINE C333 |
| ARTH 368 | ARTH 459 | FMPR 344 | \} FMPR 336 |
| ARTH 369 | ARTH 458 | FMPR 345 | J FMPR 336 |
| ARTH 370 | ARTH 244, C444 | FMPR 350 | . . FMPR 498F |
| ARTH 371 | ARTH 425 | FMPR 432 | . . . . . . CINE C412 |
| ARTH 373 | ARTH 427 | FMPR 438 | . . . . . CINE C438 |



| Course | Old Numbers and Equivalents | Course | Old Numbers and Equivalents |
| :---: | :---: | :---: | :---: |
| Painting and Drawing |  | DFTT 414 | $\left\{\begin{array}{r} \text { SCEN 411, C410, } \\ \text { C400, C420 } \end{array}\right.$ |
| ART 261 . . . . | . . . ART C461 |  |  |
| ART 417 | ART C420 | DFTT 451, $452 \ldots$ DFTT 450 |  |
| ART 420 | . ARTH 267, C234 | DFTT $498 \ldots$ | SCEN 498 |
| DRAW 470 | ART C436 | DINE 412 | DINE C410 |
| PTNG 430 | PTNG 499a | PROD $201 \ldots$ | . . PROD C200, C201 |
| PTNG 440 | . PTNG 499B | PROD 311 | PROD C302 |
| PTNG 470 | ART C436 | PROD 408 | PROD 308 |
|  |  | PROD 409 | . . PROD 309 |
|  |  | PROD 411 | . PROD C402 |
| Photography |  | TDEV 209 | . DFHD 209, DINE 200 |
| PHOT 200. | PHOT C201, C301 | TDEV $210 \ldots$ | . DFHD 210, DINE 200 |
| PHOT 221 | PHOT 321, 498J | TDEV 302 | . . DFHD 302, DINE 302 |
| PHOT 311, 312 | . PHOT 310 | TDEV 303 | . DFHD 303, DINE 303, 202 |
| PHOT 321, 322 | . PHOT 320 | TDEV 311TDEV 312 | . DFHD 311, DINE 498F |
| PHOT 331. | . PHOT 498M |  | . DFHD 312, DINE 412 or 413 |
| PHOT 332 .. | PHOT 498K | TDEV 405 <br> TDEV 415 <br> TDEV 421 | . DFHD 405, DINE 405 |
|  |  |  | . DFHD 415, DINE 415 |
|  |  |  | . DFHD 421, DINE 420 |
| Print Media |  | $\begin{aligned} & \text { TDEV } 421 \\ & \text { TDEV } 431 \end{aligned}$ | . DFHD 431 |
| PRIN 211, 311 | PRIN 210 ........ . . PRIN C200 | $\left.\begin{array}{l}\text { THEA } 211 \\ \text { PROD } 211\end{array}\right\}$ | THEA 240 |
| PRIN 221, 321 | . PRIN 220 . . . . . . . . PRIN C200 |  |  |
| PRIN 231, 331 | . PRIN 230 . . . . . . . . PRIN C200 | THEA 216 | . THEA 300, C300 |
| PRIN 241 | PRIN 240 | THEA 303 | . THEA 403 |
| PRIN 310 | PRIN C300 PRIN C300 | THEA 321 |  |
| PRIN 330 | . PRIN C300 | THEA 322 | . THEA C320 |
| PRIN 361 | PRIN 460 | THEA 404 | . THEA 304 .... THEA 300, C300 |
| PRIN 450 | . FBRS C440 | THEA 411 | . TPER C305 |
| PRIN 470 | . ART C436 | THEA 412 | . TPER C405 |
|  |  | THEA 420 ... |  |
|  |  |  | . TPER C402 ${ }_{\text {. }}^{\text {TPER 200, 201, } 202}$ |
| Sculpture, Ceramics and Fibres |  | TPER 216 . . . . . TPER C204 |  |
| CERA 230 ... | ... CAFT C310, C230 | TPER 301, $302 \ldots$ TPER $300 \ldots$.... TPER 223, 224, 306 \& 307TPER 313 |  |
| CERA 330 | . CAFT 330 | TPER 316 | TPER 213 <br> TPER 498P |
| CERA $430 .$. | - CAFT 430 | TPER 323 | . TPER 214 |
| CERA 450 | $\left\{\begin{array}{l}\text { CAFT C450 } \\ \text { ART C436 }\end{array}\right.$ | TPER 324TPER 325 | . TPER 313 |
| FBRS 240 | CAFT C240 |  | . TPER 411 TPER 413 TPER C406, C402 |
| FBRS 260 | CAFT C260 | TPER 325 . . | . TPER 413 .... TPER C406, C402 |
| FBRS 340 | CAFT C340 | TPER $333 \ldots$ | TPER 215 .... TPER C203 |
| FBRS 360 | . CAFT C360 | TPER 345 TPER 355 |  |
| FBRS 370 | . FBRS 470, ART C440 | TPER 401, $402 \ldots$ TPER $400 \ldots$. TPER 223, 224, 306 \& 307 |  |
| FBRS 440 | . CAFT C440 |  |  |  |
| FBRS 450 | \{ CAFT C450 | Women and the Fine Arts |  |
|  | A ART C436 |  |  |  |
| FBRS 460 FBRS 480 | CAFT C460 ${ }^{\text {FBRS } 460 \text { or }}$ | WFAR 320 WFAR 420 |  |

## 200.6 <br> FACULTY OF ENGINEERING <br> AND COMPUTER SCIENCE

NOTE: For old course numbers used prior to 1986-87 see Undergraduate Calendar 1985-86.

NOTE: The use of " $C$ " in the course prefix is discontinued. Unless otherwise indicated below, a course previously with a C prefix is equivalent to the identically numbered one without the C prefix; however credit value may differ.


| Course | Old Numbers and Equivalents | Course | Old Numbers and Equivalents |
| :---: | :---: | :---: | :---: |
| Computer Science |  |  |  |
| COMP 220. COMP 224 \& 285, or COMP C221 |  |  |  |
| COMP 228 . . . . . . . . . COMP 220 |  |  |  |
| COMP 238 . . . . . . . . . COMP 231 |  |  |  |
| COMP 245. COMP 244 \& 291, or COMP C241 |  |  |  |
| COMP 248 . . . . . . . . . COMP 215 |  |  |  |
| COMP 249 . . . . . . . . . . COMP 245 |  |  |  |
| COMP 292 . . . . . . . . . COMP C251 |  |  |  |
| COMP 294 . . . . . . . . . COMP 391 |  |  |  |
| COMP 295 . . . . . . . . . COMP 392 |  |  |  |
| COMP 296 . . . . . . . . . . COMP 393 |  |  |  |
| COMP 297 . . . . . . . . . COMP 394 |  |  |  |
| COMP 325 \& $386 \ldots .$. . COMP C325 \& C426 |  |  |  |
| COMP 326 . . . . . . . . COMP C322 |  |  |  |
| COMP 327. COMP 325 \& 385, or COMP C443 |  |  |  |
| COMP 343 \& $385 \ldots . .$. COMP C443 |  |  |  |
| COMP 353 . . . . . . . . . COMP C453 |  |  |  |
| COMP 392 . . . . . . . . . COMP C341 |  |  |  |
| COMP 421 . . . . . . . . COMP 427 or COMP 486 |  |  |  |
| COMP 423 \& $485 \ldots .$. . COMP C423 |  |  |  |
| COMP 427 \& $486 \ldots . .$. COMP C427 |  |  |  |
| COMP 446 . . . . . . . . . COMP 423 |  |  |  |
| COMP 46 | . . . COMP 437 |  |  |

## 2007 CREDIT FOR COURSES WITH STATISTICAL CONTENT

Some courses in statistics offered by Departments in the Faculty of Arts and Science, and the John Molson School of Business have common elements, but are not necessarily equivalent. A hierarchical order has therefore been established. The possible substitution of courses for each other proceeds from top to bottom of Figure 1.


Figure 1
NB 1: Students transferring to programs in Economics, Psychology or Sociology may substitute an equivalent or higher level course for ECON 221, PSYC 315 or SOCI 212 respectively.
NB 2: Students who have completed ECON 222 or PSYC 316 and transfer to programs requiring COMM 215 , BIOL 322 or GEOG 362 will be exempted from these courses and may not take them for credit.
NB 3: Students who have completed SOCI 212 and 213 and transfer to Economics program will be exempted from ECON 221 and may not take this course for credit.

No course may be substituted for any course which appears in a box above it in Figure 1.
Any six-credit pair of statistics courses may be substituted for any other six-credit pair which is shown in the same box or in a box which is beneath it in Figure 1.

Any six-credit pair of statistics courses may be substituted for any three-credit introductory statistics course.

Any three-credit statistics course may be substituted for any course which is shown in the same box, or in a box which is beneath it in Figure 1.

No more than six credits will be awarded among the six-credit pairs, and no more than three credits will be awarded among the three-credit courses.

## AwARDS, PRIZES AND SCHOLARSHIPS <br> 300.1 CONCORDIA UNIVERSITY ENTRANCE SCHOLARSHIPS <br> 300.2 ENTRANCE SCHOLARSHIPS <br> 300.3 CONCORDIA UNIVERSITY IN-COURSE SCHOLARSHIPS <br> 300.4 CONCORDIA UNIVERSITY COLLEGE SCHOLARSHIPS <br> 300.5 AWARDS AND PRIZES <br> 300.6 ENTRANCE BURSARIES <br> 300.7 CONCORDIA UNIVERSITY IN-COURSE BURSARIES

NOTE: Unless the award is followed by an asterisk ( ${ }^{*}$ ), no application is required.

### 300.1 CONCORDIA UNIVERSITY ENTRANCE SCHOLARSHIPS

Concordia University Entrance Scholarships: A number of scholarships are available to students entering their first year of full-time study. These non-renewable $\$ 2,000$ scholarships are awarded by the Undergraduate Scholarships and Awards Committee on the basis of academic ranking as assigned by the University in the course of admission file processing. Some Fine Arts departments may select Entrance Scholarships on the basis of portfolios, auditions or interviews. Students are advised that all Entrance Scholars must be enrolled in a full course load ( 30 credits) for the academic year. Students should contact the Financial Aid and Awards Office before any changes in course load are implemented in order to ensure the receipt of their scholarship.
All students who submit an application for admission to Concordia University by March 1 for the Fall Term and November 1 for the Winter Term will be considered automatically for an Entrance Scholarship. Only those students offered an Entrance Scholarship will be notified.

Concordia University Mature Students Entrance Scholarships: Intended for students admitted to the University as Mature students. Applications are accepted from students who have successfully completed at least 18 credits, but no more than 30 credits at Concordia University. These non-renewable scholarships are valued at $\$ 2,000$ per year. For students who have met the minimum credit requirement, the deadline is August 1 for consideration in the Fall Term and November 15 for consideration in the Winter Term. All scholarship recipients must maintain a full course load ( 30 credits) for the academic year.

Concordia University Memorial Endowment Entrance Scholarships: Established through the generosity of individuals and organizations to honour Professors Matthew Douglass, Michael Hogben, Jaan Saber and Phoivos Ziogas. The Memorial Endowment provides for four annual Entrance Scholarships. These non-renewable scholarships are awarded by the Undergraduate Scholarships and Awards Committee on the basis of academic ranking as assigned by the University in the course of admission file processing. Some Fine Arts departments may select Entrance Scholarships on the basis of portfolios, auditions or interviews. All Entrance Scholars must be enrolled in a full course load (30 credits) for the academic year.

Concordia University Senior Students Scholarships: Awarded to students 60 years of age or over. Applications are available at the Financial Aid and Awards Office, and must be returned by August 1. These scholarships have a value of $\$ 500$ each per academic year, and are renewable for a maximum of four subsequent years, providing the renewal requirements are met.

Concordia University Shuffle Entrance Scholarships: Established through the participation and generosity of the University community and friends of the University. The Concordia Shuffle consists of a fundraising "Walk-a-Thon" each year between the Sir George Williams and Loyola Campuses of Concordia University. A number of Entrance Scholarships are awarded to students entering their first year of full-time study. The recipients will be selected on the basis of academic ranking as assigned by the University in the course of admission file processing. Mature students may be considered after having successfully completed at least 18 credits, but no more than 30 credits at Concordia University. Some Fine Arts departments may select Entrance Scholarships on the basis of portfolios, auditions or interviews. These awards are open to full-time undergraduate students in any faculty, including International students. Part-time disabled students are also eligible for these awards. Application forms are available from the Financial Aid and Awards Office and must be returned by August 1.

### 300.2 ENTRANCE SCHOLARSHIPS

Associates of Concordia, Alex C. Duff Scholarship: Established in 1995 by the Associates of Concordia University on the occasion of the organization's dissolution and in memory of Alex C. Duff, a founding member. Eligibility: Open to all deserving undergraduate students without restriction to Faculty.

Aaron M. Fish Scholarship of Excellence in Mechanical Engineering and the Ilco Unican Inc.
Scholarship of Excellence in Mechanical Engineering: Established in 1999 through the generosity of

Mr. Aaron M. Fish, Chairman and CEO, Ilco Unican Inc. Eligibility: These non-renewable entrance scholarships are awarded to one male and one female student upon entry to Concordia University to pursue studies in Mechanical Engineering.

Canada Post Corporation Scholarships in Engineering: These non-renewable entrance scholarships were created through the generosity of Canada Post Corporation to encourage excellent Engineering students to pursue their undergraduate studies at Concordia. These scholarships are awarded on the basis of academic ranking as assigned by the University in the course of admission file processing, to students entering their first year of full-time study in the fields of Computer Engineering, Industrial Engineering or Mechanical Engineering.

Concordia University Alumni Association Entrance Scholarship: Established in 1999 by the Concordia University Alumni Association. Eligibility: Open to all deserving undergraduate students upon entry to Concordia University without restriction to faculty.

Concordia Hong Kong Foundation Entrance Scholarships: These two renewable entrance scholarships were established in 1999 by Concordia Hong Kong Foundation. This foundation was established by Concordia University Alumni in Hong Kong. Eligibility: Open to holders of Hong Kong or Chinese citizenship, who are graduating from secondary school in Hong Kong or S.A.R. or the People's Republic of China.

Rona and Irving Levitt Family Foundation Entrance Scholarships: Intended to assist students attending Concordia University, a number of scholarships are available to students entering their first year of fulltime study. These scholarships are valued at $\$ 1,000$ each and are non-renewable. They are awarded by the Undergraduate Scholarships and Awards Committee on the basis of academic ranking as assigned by the University in the course of admission file processing, and a personal statement provided by the applicant. Application forms are available from the Financial Aid and Awards Office. The deadline is April 1.

Liberal Arts College Entrance Scholarship: For further details, contact the Principal's office, Liberal Arts College: (514) 848-2565.

Loyola Alumni Association Inc. Education Grant: Created to assist deserving undergraduate or graduate students at any level, whether as entrance or in-course awards. Any Concordia University applicant is eligible but preference will be given to children and grandchildren of active Loyola Alumni Association members. For further information and application forms, contact the Financial Aid and Awards Office. The deadline is April 1.

Bob McDevitt Award: Established in 2000 through the generosity of his friends and colleagues, this scholarship is awarded on the recommendation of the Journalism Department on the basis of material from the student's application for admission to the Department: transcript of grades, letter of intent, and English proficiency scores. Eligibility: Open to deserving undergraduate full-time students entering their first year of studies in the Department of Journalism.

Reader's Digest Scholarship in Journalism: Established in 2000 through the generosity of Reader's Digest. The Reader's Digest Scholarship in Journalism is awarded on the recommendation of the Journalism Department and the Undergraduate Scholarship and Awards Committee on the basis of portfolio submission and academic ranking as assigned by the University in the course of admission file processing.

Schouela Family Entrance Scholarship: Established in 1999 through the generosity of the Schouela family, this entrance scholarship is available to Canadian Citizens and Permanent Residents entering the Bachelor of/Baccalaureate in Computer Science program on a full-time basis. This award is not renewable.

## Loyola Foundation Inc. Entrance Scholarships

Several endowment funds which originated from donors wishing to support Loyola College allowed for the establishment of these scholarships. Their donations were turned over to the Loyola Foundation shortly after the Foundation's creation in 1973 to be used for objectives, activities and purposes that would "foster and maintain the tradition and spirit of Loyola College," irrespective of the major structural changes anticipated at the time. It is the continuing wish of the Foundation that these scholarships encourage and support the education of persons of good character who respect and share the tradition and spirit of Loyola College.

The awards funded by the Loyola Foundation consist of two renewable entrance scholarships of $\$ 2,000$ each. This endowment is the amalgamation of the following awards:

The Dr. William Atherton History Prize Fund
The Ursula Carling Fund
The Mrs. John Moriarty Fund
The St. Ignatius Men's Association Fund
The Clive Moore Memorial Fund
The George V. Uihlein Jr. Memorial Fund
The O'Hearn and O'Connor History Prize Fund
The Loyola Alumni Association Fund
The James Webber Trust Fund
The Clarence G. Smith Memorial Fund

The Susan Langley Fund
The Loyola Evening Students' Fund
The Professors McGuigan and McPhee Fund
The Francis J. Dowling Fund
The Lilley F. Barry Fund
The Kenneth J. McArdle Memorial Fund
The Charles J. Brown Memorial Fund
The Gordon Bennett Memorial Fund
The Avon Products of Canada Fund

Eligibility:

- available to graduates of Loyola High School entering a Concordia University undergraduate program on a full-time basis;
- required presentation of a letter of recommendation from Loyola High School, following the completion of cégep or equivalent;
- awards to be made on the basis of academic achievement at cégep or equivalent and the strength of the recommendation by Loyola High School, with the final selection to be left to Concordia University;
- renewable annually subject to continuing full-time enrolment and maintenance of a GPA of 3.00 or better.

Application:
Application and recommendation forms are available from the Financial Aid and Awards Office of Concordia University and the Admissions Office of Loyola High School. Application and letters of recommendation must be returned by March 1.

Richard and Carolyn Renaud Scholarship: Established through the generosity of the Lengvari family, this entrance scholarship is open to a student applying to a Major in Political Science at Concordia University.

Vince Sirois Memorial Scholarship: Created through the generous assistance of Imperial Oil Limited to honour Vince Sirois, former senior Vice-President and Director, Imperial Oil Limited, and former member of the Board of Advisers, Concordia University, School of Community and Public Affairs. This award is available to a bilingual student entering the School of Community and Public Affairs who, in addition to academic achievement, has demonstrated a commitment to public life. For further details, apply to the Principal, School of Community and Public Affairs: (514) 848-2575.

### 300.3 CONCORDIA UNIVERSITY IN-COURSE SCHOLARSHIPS

In-course Scholarships are awarded to full-time students (unless otherwise indicated) who have completed at least 24 full-time credits during the previous academic year at Concordia University. Recipients are selected in the summer on the basis of the previous year's academic achievement. These scholarships are paid in the following Fall and Winter Terms. Recipients must maintain their full-time status throughout the year in which the award is tenable. Academic performance is reviewed by the Office of the Registrar. Please note that award recipients may hold only one of the following types of awards in a given academic year:

- Concordia University Entrance Scholarships
- Concordia University In-course Scholarships
- Concordia University In-course Bursaries

Concurrent tenure in the aforementioned awards is not allowed unless expressly authorized by the University Undergraduate Scholarships and Awards Committee.

## Open to Students in Any Faculty

Association of Alumni of Sir George Williams University Inc. Scholarship: Established in 1988 through the generosity of the Association of Alumni of Sir George Williams University. Eligibility: Open to all full-time students.

Russell Breen Scholarship: Established in 1985 in honour of Dr. Russell Breen for his many years of dedication and service to Loyola College and Concordia University. Eligibility: Open to all full-time students.

Laurie Brodrick Scholarship: Established in 1995 in memory of Ms. Laurie Brodrick, an athlete and graduate of Concordia University. Eligibility: Open to a second-year undergraduate athlete.

Campaign for the New Millennium Scholarships: Established in 1999 through the generous commitment of students to Concordia University's Campaign for the New Millennium. Eligibility: Available to students studying full- and part-time in the Faculties of Arts and Science, Fine Arts, and the John Molson School of Business.

Harry and Grace Colle Scholarship: Established in 1986 through a bequest to Concordia University by Mrs. Grace Colle, the awarding of this scholarship continues the lifelong interest of Harry and Grace Colle in the education of young individuals. Eligibility: Open to all full-time students.

Concordia University Part-time Scholarships: A number of scholarships are available to students who are continuing their studies on a part-time basis. To be eligible for these scholarships, students must have successfully completed at least 12 credits, but no more than 24 credits, and be registered as a part-time student for the upcoming academic year. The value of the scholarship is dependent upon the number of credits the recipient is registered for at the time of selection in September for the Fall and Winter semesters.

Concordia University Alumni Association, Inc. Scholarship: Established in 1993 through the generous support of Concordia University Alumni. This fund supports a number of scholarships. Eligibility: Open to all full-time students in any faculty.

Concordia University $25^{\text {th }}$ Anniversary Scholarship: Established on the occasion of the $25^{\text {th }}$ Anniversary of the creation of Concordia University to celebrate and mark this event for posterity. The scholarship recipient will be selected by the Undergraduate Scholarships and Awards Committee. Eligibility: Available to Canadian Citizens, Permanent Residents and International students and awarded in recognition of academic achievement to undergraduate students without restriction to their field of study.

Brian T. Counihan Scholarship for Outstanding Contribution to Student Life: Established in 1995 in honour of Brian T. Counihan's contributions to student life over his 25 -year tenure as the first Dean of Students of Concordia University. Eligibility: Awarded, at the discretion of the Undergraduate Scholarships and Awards Committee and upon recommendation by a staff member, in recognition of contribution to student life and academic achievement, to undergraduate students, without restrictions to the level of study, student status, or citizenship. Candidates will be required to have completed one full academic year or equivalent and have a minimum GPA of 3.30.

Friends of Concordia Scholarship: Established through contributions from various foundations, corporations, alumni, members of the University community, and Friends of Concordia. This fund also includes contributions from the American Association of Cost Engineers. Eligibility: Awarded, at the discretion of the Undergraduate Scholarships and Awards Committee, in recognition of academic achievement, to undergraduate students, without restriction to their field of study.

Henry F. Hall Scholarship: Established in 1982 by the faculty and staff of Sir George Williams University in recognition of the many years of service given to the University by the late Dr. Henry F. Hall. Eligibility: Awarded annually on the basis of merit to a full-time student.

Hellenic Students' Association Scholarship*: Established in 1988 by the Hellenic Students' Association of Concordia University. Eligibility: Open to all Canadian Citizens, Permanent Residents, or International students who can demonstrate Greek ethnic origin by providing an English copy of the applicant's and/or applicant's parents' birth certificates. Candidates must advise the Director of Financial Aid and Awards in writing, and provide their Concordia University I.D. number and supporting documents no later than August 1 for consideration in the following academic year.

Bill Hunt Memorial Scholarship: Established in 1977 in memory of the late Bill Hunt, a graduate of Sir George Williams University, by friends and associates from the YMCA, where Mr. Hunt was a social worker. Mr. Hunt was interested in the rehabilitation of adolescents who had dropped out of school. Eligibility: Open to all full-time students, and meant to help students who are attempting to re-establish their lives and their education.

Leslie and Kaye Jowett Scholarship: Established in 1989 through the generosity of E. Leslie Jowett, a former Sir George Williams College student who returned to the University following his retirement and graduated from the Faculty of Fine Arts in 1982. Eligibility: Awarded annually to full-time students, without restriction to their field of study.

Meloche Monnex Inc. Scholarship: Established by J. Meloche Inc., a leading insurance broker, this non-renewable scholarship will be awarded on the basis of academic merit. Eligibility: Awarded
annually to a full-time student who has completed at least 24 credits at Concordia University, and without restriction to his/her field of study.

Nicholas Racz Memorial Scholarship: Established by the friends and associates of Nicholas Racz in a tribute to his character and indomitable spirit. In his life he gave much of himself to those around him, and his friends felt that it would be fitting that his sense of caring for others be continued through the implementation of this scholarship. Eligibility: Awarded annually to full-time students, without restriction to their field of study.

Lucien N. Rossaert Memorial Scholarship: Established in 1989 by friends and colleagues in memory of Mr. Rossaert, former Vice-Chair of the Conseil Supérieur de L'Éducation. Eligibility: Open to all students.

William Schiff Scholarship: Established by the Senior Students' Appeal Committee in 1988 in honour of the late William Schiff, an active senior student, and a founding member of the Sparklers Club. Eligibility: Available to a Senior full- or part-time student who is 55 years of age or over. The scholarship is not renewable and can only be awarded to a student once.

Susan Levin-Woods Scholarship*: Established in 1988 by Susan Levin-Woods, a graduate of Concordia University. Eligibility: Awarded annually to a Canadian woman who has demonstrated excellence in her studies and who is pursuing a degree on a full- or part-time basis while following a career path or bringing up a family. The recipient must have completed 30 credits towards her degree. Application forms are available at the Financial Aid and Awards Office, and must be submitted before August 1.

## Open to Students in the Faculty of Arts and Science

## Applied Human Sciences

A. Ross Seaman Memorial Scholarship*: Established in 1987 to honour the memory of A. Ross Seaman for his life-long dedication to the communities of Concordia University, Dawson College, Kamp Kanawana and the YMCA. Each year, students from these four institutions are recognized for their leadership and scholarship. Eligibility: Students can apply or be nominated. Application information is available from the Department of Applied Human Sciences at Concordia University.

## Communication Studies

Mix 96 - Nick Auf der Maur Memorial Scholarship*: Established in 1989 by Mix 96 radio station to promote studies in the fields of Communication Studies and Journalism. Eligibility: Awarded to second-year students in Journalism or Communication Studies (in alternate years), exhibiting an interest in radio broadcasting. Interested candidates should contact the Chair of the Department of Journalism or Communication Studies by January 31: (514) 848-2555.

## Economics

Anne M. Galler Memorial Scholarship: Established in February 2000 by Mr. Mark Galler in the memory of his wife, Mrs. Anne M. Galler. Eligibility: Available to deserving full- or part-time students in the Department of Education who have completed a minimum of 30 credits in the Child Studies Program.

John W. O'Brien Scholarship*: Established in 1984 to honour Dr. John W. O'Brien, first Rector of Concordia University, for his contribution to Sir George Wiliams University and Concordia University. Eligibility: Restricted to students entering the Honours Program. Interested candidates may contact the Chair of the Department of Economics in May of each year: (514) 848-3900.

Stelcner Family Prize: Established in 1999 through the generosity of the Stelcner family, this award provides recognition and incentive for excellent students in the Economics Co-op program at Concordia University. It is awarded annually to the two top Economics Co-op students. Eligibility: Students must be members of the Economics Co-op program, with a minimum of 60 credits completed in Economics.

## English

Compton-Lamb Memorial Scholarship*: Established in 1974 in memory of the late Neil Compton and Sidney Lamb by faculty members in the English Department of Sir George Williams University. This scholarship is intended to recognize an outstanding Honours student in the English Department. Eligibility: The recipient must be entering the final year of an Honours program. This includes students in the English Literature and the joint Honours in English and Creative Writing Programs. Students must submit a copy of their record and an essay written for an English Literature course. Deadline for submission of said essay to the Department of English is February 28.

## History

McGrath-Smith Memorial Scholarship*: Established in 1981 in memory of the late Warrant Officer, P.J. McGrath, RCAF, and Sergeant F.W. Smith, RAF, who gave their lives in combat in 1942 during an anti-submarine flight operation. Eligibility: Open to all full-time students and awarded to the student
who attains the highest grade in the History of Canada HIST 203/205. The recipient is chosen upon the recommendation of the Chair of the Department. For further information, contact the Chair of the History Department by May 31.

## Humanities

BPW Montréal Judith Litvack Women's Scholarship: Established in 1998 through the generosity of the Business and Professional Women's Club (BPW) to provide for an annual in-course scholarship. The scholarship is funded by an endowment from the late Judith Litvack, who was once a student at Concordia University. The Business and Professional Women's Club of Montréal is one of the oldest women's organizations in Montréal. Created in 1926, the organization belongs to the Québec, Canadian and International Federations of Business and Professional Women's Clubs. The BPW promotes women's self-reliance and financial independence. Eligibility: These non-renewable scholarships are awarded by the Undergraduate Scholarships and Awards Committee on the basis of academic achievement to either full- or part-time students who have completed at least 24 credits at Concordia University, and are open to all full- and part-time female students in the Faculty of Arts and Science enrolled in the Humanities or Social Sciences.

## Journalism

Canadian Corporate News Scholarship: Established through the generosity of Canadian Corporate News, which distributes news releases to the media and investment community. Canadian Corporate News also publishes directories under the name of Matthews Media directories. Eligibility: Available to a scholastically deserving full-time undergraduate student pursuing a Major in Journalism.

Canadian Women's Press Club (Montréal Branch) Scholarship: Established in 1976 by the Canadian Women's Press Club (Montréal branch) to promote studies in the field of Journalism. Eligibility: Open to any student, full- or part-time, entering the second-year of the Journalism program.

AI Cauley — CJAD Electronic Journalism Grant*: Established in 1982 by CJAD radio station to honour longtime Montréal broadcaster AI Cauley. Eligibility: Awarded annually to a second- or third-year student enrolled in the Journalism program, who shows potential for a career in broadcast journalism. This award is given in April, and is non-renewable. Applications should be made to the Director of the Department of Journalism, and should include a description of the applicant's broadcast activities and interests, a copy of his or her transcript, and a short demonstration tape (audio/video).

## Mathematics and Statistics

Axa Canada Scholarship: Established by Axa Canada Inc. in 1999. This scholarship recipient is selected by the Undergraduate Scholarships and Awards Committee on the basis of academic merit. Eligibility: Open to full-time students pursuing a Specialization or Honours program in Actuarial Mathematics. Students must have completed one full year of study in the program.

## Modern Languages and Linguistics

Carmine Di Michele Scholarship: Established in 1982 in honour of Carmine Di Michele, a faculty member of the Department of Modern Languages. Eligibility: Open to all students whose Major is Italian. The award is granted upon the recommendation of the Chair of the Department of Modern Languages and Linguistics.

## Philosophy

Ada Israel Memorial Scholarship: Established in 1986 by the family of the late Ada Israel, a student at Concordia University. Eligibility: Open to full-time students in the Philosophy Department who have completed at least 24 credits in Philosophy and who have made a contribution to the Concordia University philosophy community. Selection is made by the Chair, in consultation with the Department's Undergraduate Studies Committee.

## Political Science

Political Science Jean H. Picard Foundation Scholarships*: A number of scholarships are available to Political Science students. Interested students should contact the Chair of the Political Science Department by January 15: (514) 848-2105.

Zeidan Family Scholarship*: Established in 1994 by Mr. and Mrs. Omar Zeidan, this scholarship is open to students in the Faculty of Arts and Science who have successfully completed a course in Middle Eastern Studies. Eligibility: The recipient will be selected on the basis of an essay of approximately 3,000 words on the theme "Arab/Islamic Canadian Relations." Students interested in submitting an essay must notify the Chair of the Political Science Department by February 1 and present the completed essay to the Chair of the Department by March 1.

## Psychology

Lucille Irvine Memorial Scholarship: Established in 1967 by Mrs. William Broidy in memory of the late Lucille Irvine, a devoted teacher and former member of the staff of Sir George Williams University.

Eligibility: Open to any full-time student in the Department of Psychology upon the recommendation of the Department.

Professor Joseph P. Zweig Scholarship: Established in 1981 in recognition of the contribution of Professor Zweig to Sir George Williams University and Concordia University in teaching and student services during his 43 -year association with both universities. Eligibility: Awarded on the basis of high scholastic achievement, and a substantial contribution by a student studying in the areas of Psychology of Fitness, Exercise Science, and/or Behavioural Medicine. The candidates will be nominated by Faculty members in the Psychology Department involved in these areas.

## Women's Studies

Griffintown Award: The Griffintown Award has been created to further both women and Women's Studies. Eligibility: This award, based solely on academic merit, is awarded to a full-time student pursuing a Specialization in Women's Studies who has completed his/her second or final year of the program and who has achieved the highest grade point average.

Lillian S. Robinson Scholarship in Women's Studies: Established in 2001 in commemoration of the contributions of Professor Lillian S. Robinson to the field of Women's Studies. Professor Robinson is Principal of Concordia University's Simone de Beauvoir Institute, which is devoted to the study of women's issues and attracts women from a wide variety of backgrounds with diverse scholarly interests. This scholarship is open to Canadian Citizens, Permanent Residents, and International students who have completed one year of full- or part-time studies in a Bachelor of/Baccalaureate in Arts with a Major or Specialization in Women's Studies. Selection of recipients is based upon the recommendation of a selection committee. This scholarship is not renewable, but may be awarded to the same student in subsequent years.

Maïr Verthuy Scholarship: Established in 1985 by colleagues and associates to honour Maïr Verthuy, a professor at Concordia University. Eligibility: Open to an undergraduate student whose Major is Women's Studies. The recipient must have completed 60 credits with a minimum overall GPA of 3.00, of which at least 30 credits must be in Women's Studies, with a minimum GPA of 3.50 .

## Open to Students in the John Molson School of Business

Stacie Lee Bessner Memorial Scholarship: Established in 1978 by the Bessner family in memory of their daughter Stacie Lee. Eligibility: Open to any full-time student.

Gunther Brink/Petro-Canada Scholarship: Established in 1989 by Petro-Canada in honour of Gunther Brink, a retired faculty member in the Faculty of Commerce. Eligibility: Open to any full-time student.

Commerce and Administration Students' Association Awards*: Established in 1990 by the Commerce and Administration Students' Association. Eligibility: Open to all full- and part-time students, these scholarships are awarded on the basis of scholastic performance and contribution to the John Molson School of Business student life. Applications are available from the Financial Aid and Awards Office and must be returned by September 7.

George and Helen Economides Scholarship: Established in 1999, this scholarship is available to fulltime students enrolled in Bachelor of/Baccalaureate in Administration or Commerce programs within the John Molson School of Business. Candidates must be in their second or third year of studies.

Magnus Flynn Scholarship: Established in 1983 to honour Magnus Flynn for his years of devotion to Sir George Williams University and Concordia University. Eligibility: Granted to a Commerce student with high academic standing, who has made a strong contribution to student life. The award is based on the recommendation of the Dean of the Faculty.

Great-West Life Business Education Awards: Established in 1999 through the generosity of the Great-West Life Insurance Company. Eligibility: Available to all full-time Commerce and Administration students who have completed a minimum of 24 credits at Concordia University and have maintained a minimum GPA of 3.30. Preference will be given to students who can demonstrate ongoing involvement in community volunteer work.

Danielle Morin Award: Established in 2001 by the Commerce and Administration Students' Association to honour Dr. Danielle Morin of the John Molson School of Business. This award is open to full- and part-time students enrolled in Bachelor of/Baccalaureate in Commerce or Administration programs with a minimum of 48 credits completed. Recipients are selected based on satisfactory academic performance and their contribution to student life in the John Molson School of Business. Application forms are available at the Financial Aid and Awards Office. The application deadline is September 7.
P.T.R. Pugsley Memorial Scholarship: Established in the 1960s by friends of the late Professor Pugsley to commemorate his many years of service as senior professor in the Faculty of Commerce at Sir George Williams University. Eligibility: Awarded annually to an outstanding student in the John Molson School of Business.

## Accountancy

Arthur Andersen and Company Scholarship: Established in 1976 by the Chartered Accountant firm of Arthur Andersen and Company. Eligibility: Awarded to a Commerce student entering his/her final year and whose Major is Accountancy. Students must have a good academic record, and demonstrate leadership qualities in the classroom as well as in student activities.

Howard Gilmour Scholarship: Established by Mr. Gilmour's partners at Richter, Usher and Vineberg, Chartered Accountants. Eligibility: Awarded annually to a Commerce student whose Major is Accountancy, and who is entering the second year of the program.

Raymond, Chabot, Grant Thornton Scholarship*: Established in 1989 by Raymond, Chabot, Grant Thornton, Chartered Accountants to encourage and reward outstanding Accounting students, this award includes a 13 -week summer job, offering on-the-job training, plus a scholarship. Eligibility: Awarded to a full-time, second-year bilingual Commerce student whose Major is Accountancy. The scholarship is based on the student's academic performance, top decile ranking in Accounting courses, and participation in on- or off-campus activities. Application forms are available from the Financial Aid and Awards Office. The deadline is November 30.

## International Business

Peter Glasheen Memorial Scholarship: Established in 1986 by friends, associates, and family of the late Peter Glasheen as a tribute to the spirit of his life - a major aspect of which was his abiding commitment to young people, their education, and their future. Eligibility: Open to students in the International Business Program, John Molson School of Business.

## Marketing

Le Château Stores Scholarship: Established in 1976 by Le Château Stores of Canada Limited. Eligibility: Open to all full-time Commerce students in the John Molson School of Business who are entering their final year of study, and specializing in Marketing.

Joanisse Marketing Communication Scholarship: Established in 1987 in memory of the late lan Roberts, founder and President of lan Roberts Inc. Eligibility: Open to a Commerce student whose Major is Marketing, and who is entering his/her final academic year. The recipient must have completed the "Advertising and Sales Promotion Management" course (MARK 453). The recipient will be nominated by the Chair of the Marketing Department to the Undergraduate Scholarships and Awards Committee.

## Open to Students in the Faculty of Engineering and Computer Science

James McQueen Scholarship: Established in 1979 by the family of the late James McQueen as a tribute to his interest in education and higher learning. Eligibility: Open to all students in the Faculty of Engineering and Computer Science.

Richard Laurence Weldon Scholarship: Established in 1969 through the estate of Richard Laurence Weldon. Eligibility: Awarded annually to a student in the Faculty of Engineering and Computer Science at the discretion of the University Scholarships and Awards Committee.

Jaan Saber, Phoivos Ziogas Memorial Scholarship: Established in 1998 by a former student and friend of Professors Jaan Saber and Phoivos Ziogas to honour their memory and continue their traditions of engineering excellence. Eligibility: This non-renewable scholarship is awarded by the Undergraduate Scholarships and Awards Committee on the basis of academic achievement to full-time students who have completed at least 24 full-time credits in their Engineering program during the previous academic year at Concordia University. This award is open to all full-time students in the Faculty of Engineering and Computer Science.

## Building Engineering

Magil Construction Ltd. Scholarships: A number of in-course scholarships are available through the generous support of Magil Construction Ltd. Eligibility: Open to all full-time undergraduate students in Building Engineering, and to students who have completed between 35 and 70 credits in the Building Engineering program. The recipients will be selected by the Chair of their respective programs on the basis of academic excellence.

## Civil Engineering

Magil Construction Ltd. Scholarships: A number of in-course scholarships are available through the generous support of Magil Construction Ltd. Eligibility: Open to all full-time undergraduate students in Civil Engineering, and to students who have completed between 35 and 70 credits in the Civil

Engineering program. The recipients will be selected by the Chair of their respective programs on the basis of academic excellence.

## Computer Science

Steltor Scholarship: Established in 1996 to support a deserving undergraduate student in the Department of Computer Science. The recipient will further have an offer of summer employment with the Steltor company. Eligibility: Open to full-time undergraduate students in the Faculty of Engineering and Computer Science, Department of Computer Science.

Department of Computer Science Scholarship: Established in 1996 by Dr. Clement Lam to recognize an outstanding student registered in the Department of Computer Science. Eligibility: Awarded to the highest ranked full-time undergraduate student in the Department of Computer Science who has completed a minimum of 50 credits.

Electrical and Computer Engineering
Julian C. Smith Memorial Scholarship: Established in 1997 by the Board of Directors of the Julian C. Smith Memorial Fund Corporation to honour the life and contributions of Julian C. Smith, who until his death in 1939 was the President of Shawinigan Water \& Power. Eligibility: Granted annually to a second- or third-year student in Electrical Engineering.

SR Telecom Scholarship: Established in 1993, this scholarship is funded by an endowment provided by SR Telecom Inc. Eligibility: Open to an undergraduate student in Electrical Engineering.

## Mechanical and Industrial Engineering

Silas Katz Memorial Scholarship*: First awarded in 1984, this scholarship was made possible through donations from faculty, students and staff, in memory of the late Dr. Silas Katz, Professor of Mechanical Engineering. Eligibility: Open to students in Mechanical or Industrial Engineering. Consideration will be given to those students who are mature, self-supporting, and who maintain a good academic performance and have completed between 30 and 90 credits. Selection is made by an Advisory Committee to the Chair. Recipients are notified in October. The award is renewable if the student maintains the criteria. Contact the Chair, Department of Mechanical and Industrial Engineering for information.

## Open to Students in the Faculty of Fine Arts

Faculty of Fine Arts Development Fund Scholarships: The Faculty of Fine Arts offers a number of in-course scholarships, made possible by donations to its Faculty Development Fund. Eligibility: Awarded on the basis of academic achievement to second- and third-year students in the Faculty of Fine Arts (i.e. those having completed 24 credits or more).

Ruth Louise Vaughan Memorial Scholarship: Established in 1984 by the Vaughan Family in memory of their sister and daughter. Eligibility: Awarded annually to a student in the Faculty of Fine Arts.

## Art Education

Anne Savage Memorial Scholarship: Anne Savage was a pioneer Canadian art educator and painter who died in 1971. She was an important influence on the founders of the art education program at Sir George Williams University. The Anne Savage Memorial Scholarship was initiated after her death with contributions made in her memory by friends and former students. In making this award, the Art Education Department of the Faculty of Fine Arts hopes to carry on the tradition of dedication, innovation and quality established by Anne Savage in her lifetime and to assist students preparing for careers as art teachers. Eligibility: This scholarship is awarded annually to an outstanding student in Art Education. Recipients are selected on the basis of artistic and academic achievement and commitment to the vocation of teaching.

## Cinema

de Sève Cinema Scholarships: Established in 2001 through the generosity of la Succession J.A. de Sève, and intended to support full-time undergraduate and graduate students pursuing degrees in the Mel Hoppenheim School of Cinema. Entrance scholarships, in-course scholarships, and other awards or grants are awarded annually based on the recommendation of a selection committee within the Mel Hoppenheim School of Cinema. These awards are non-renewable.
Philip Russel George Award: One of several staff- and faculty-supported awards, this was established to honour a student in the Film Production Program. Eligibility: Selection is done exclusively by the School of Cinema.

Kodak Scholarships*: Awarded annually to Cinema students on the basis of outstanding performance in Film Production. Selection is done exclusively by the School of Cinema.

Heather Walker Memorial Scholarship: Established in 1995 by the Faculty of Fine Arts through the donations of colleagues and friends. Heather Walker was an academic adviser in the Office of Student Affairs and she represented our best attitude toward students. She graduated with a BFA in

Cinema in 1980, and obtained a second BFA in Photography in 1988. Heather pursued successful artistic activities in Photography and was dedicated to humanitarian organizations such as Families for Children, Development and Peace and H.O.P.E. Eligibility: Awarded annually to a full- or part-time student in one of the programs offered in Cinema or Photography. The recipient is selected on the basis of artistic and academic achievement, and on commitment to humanitarian activities.

Sean Wall Scholarship: Established in 1992 by his parents, Deanna and Ted, and his brothers, George and Wilder, as tribute to Sean Wall who was a promising young Film Production student at Concordia University. Eligibility: Awarded annually to the most outstanding Cinema student entering second year. Selection will be made by the School of Cinema on the basis of work completed during the first year at Concordia University.

## Music

Robert D. Ball Memorial Scholarship: Established in 1999 in memory of Robert Ball, a student of Music at Concordia University. Robert Ball was a remarkable individual who never let his illness get him down; he always maintained a sense of self-worth and optimism. Eligibility: Selection is performed by the Faculty of Fine Arts, Department of Music. Open to deserving full-time students in their third year who have demonstrated a sensitivity to the world in some notable fashion, either by helping others or through overcoming some personal obstacle.

Dr. Oscar Peterson Jazz Scholarship: Created in 2000 by Verve Music Group Canada (distributors of Telarc Records in Canada) and Telarc International, this scholarship celebrates Dr. Oscar Peterson's $75^{\text {th }}$ birthday with a gift to him, honouring his name in a way that will have meaning to the jazz stars of the future. This scholarship is intended to encourage and reward students currently enrolled in the Jazz Specialization at Concordia University, whose commitment and spirit towards music reflect the values exemplified by Dr. Peterson. Eligibility: Recipients must be full-time students. Selection shall be made by the Chair of the Department of Music upon recommendation of the faculty member directing the Jazz Studies Program in the Faculty of Fine Arts. Students must be pursuing a Bachelor of/Baccalaureate in Fine Arts, Specialization in Jazz Studies. The award is not automatically renewable but recipients may be considered again in successive years, so long as they continue to meet the terms and conditions for this award.

## Studio Arts

Cecil Buller - John J.A. Murphy Scholarship in Drawing: Created in 2000 through the generosity of Dr. Sean Murphy, a member of Concordia's Fine Arts Advisory Board, in honour of his parents, Cecil Buller and J.A. Murphy, to encourage students who show exceptional promise in traditional drawing. The scholarship is awarded either at the undergraduate or graduate level, as determined by the Faculty, on a rotational basis. Eligibility: Open to both full-time and part-time students enrolled in a Studio Arts program. Recipients are selected based on recommendation of the Faculty of Fine Arts, and can be reconsidered in subsequent years.

Robert Langstadt Memorial Scholarship: Established by Mrs. Anne Kahane Langstadt in memory of her husband. Anne Kahane and Robert Langstadt are former professors in the Faculty of Fine Arts.
Eligibility: Awarded annually to a full-time undergraduate student whose Major is Painting and Drawing or Studio Arts. The recipient must be entering his/her second or third year of study in the program. This award is alternated between Studio Art and Painting and Drawing on an annual basis.

Norman McLaren Film Animation Scholarship: Established in 1981 by the late Norman McLaren, an animation film-maker. Eligibility: Awarded to a Film Animation student. Selection is done exclusively by the School of Cinema.

Stevenson Colour Scholarship: Established in 1991 by the Stevenson family in memory of David L. Stevenson, founder of Stevenson \& Son Co. Ltd. Eligibility: Two scholarships are available to students in the Faculty of Fine Arts, whose Major is Painting and Drawing.

### 300.4 CONCORDIA UNIVERSITY COLLEGE SCHOLARSHIPS

## Liberal Arts College

Eric Harrison Alumni Award: Established by Stan and Lois Tucker to honour a wonderful teacher and lifelong friend, the late Professor Eric Harrision. Awarded annually to students who are in their graduating year, are members of the Liberal Arts College, and who by virtue of their profession, activities, or creativity, embody the importance of lifelong learning.

Liberal Arts College Scholarships: The Liberal Arts College administers several scholarships that are awarded annually. These awards are made possible by donations from friends of the Liberal Arts College, and are based upon high academic performance in Liberal Arts courses. Renewal is possible providing the student maintains the criteria for the award. These awards are:

- Liberal Arts College Scholarship - Frances and David Rubin Scholarship
- Thomas More Scholarship •George Rudé Scholarship

Lois and Stan Tucker Scholarship: Established in 1993 by Lois and Stan Tucker who believe that the love of learning and the development of intellectual curiosity constitute the basis for a fulfilled life. For further information, contact the Principal, Liberal Arts College: (514) 848-2565. Eligibility: Open to students enrolled in the Liberal Arts College.

## Lonergan University College

Mark Doughty Scholarship and Award: Awarded annually to a student who is a member of the Lonergan University College, upon the recommendation of the Principal and the College Council. To be eligible for the scholarship, students must have completed a minimum of 18 credits at Lonergan University College. Recipients are selected on the basis of academic excellence and their contribution to the intellectual and social life of the College. For further information, contact the Principal, Lonergan University College: (514) 848-2280.

### 300.5 AWARDS AND PRIZES

Administrative Management Society Award*: Established by the AMS in memory of John Crawford and in honour of past presidents, this award will be made in alternate years to an undergraduate student in the Department of Education. This award will be based solely on academic merit. Eligibility: Interested candidates should contact the Chair of the Department of Education: (514) 848-2004.

Alain Award in Electroacoustics*: Established in 1985, this award is granted annually to a student who demonstrates commitment and ability in the field of electroacoustics. Eligibility: Open to students registered in an Electroacoustics course in the preceding academic year, within the Music Department of the Faculty of Fine Arts. Interested candidates should contact the Chair of the Music Department: (514) 848-4705.

Bauer Inc. Women's Hockey Awards: Established in 1998 through the generosity of Bauer Inc. to provide for two annual in-course awards. Eligibility: These non-renewable awards are awarded on the basis of academic achievement to either full-time or part-time students who have successfully completed at least 18 credits at Concordia University in the previous academic year. The awards are open to all full- and part-time CIAU-eligible student athletes who are members of the Concordia University Women's Hockey team.

Brenda Carter and David Wheeler Memorial Award*: Established by friends and colleagues in memory of Brenda Carter, a dedicated professor and elementary school principal, and her husband, David Wheeler, professor emeritus at Concordia University in the Department of Mathematics and Statistics. This award is available to undergraduate and graduate students in the Department of Mathematics and Statistics who preferably meet some or all of the following criteria:

- demonstrate a proven interest in teaching;
- have returned to academic study after an interruption;
- have overcome some particular handicap or obstacle (e.g. academic background, health, or financial security);
- have been active in a social, political, or professional organization.

Students wishing to apply for this award should contact the Secretary to the Chair, Department of Mathematics and Statistics, Loyola Campus, Room HB 236: (514) 848-3223. The deadline is December 15 .

Richard M. H. Cheng Award*: Established by the family of Professor Cheng to commemorate his 25 years of service at Concordia University and to promote the concept and practice of engineering design among young mechanical engineers. Selection of the award will be made by an Advisory Committee to the Chair, Department of Mechanical and Industrial Engineering, and the criteria of excellence will include evidence of creativity, usefulness, detailed design, reporting and presentation. Eligibility: Awarded annually to a full-time undergraduate student, or group of students, of the Mechanical Engineering program who is judged to have demonstrated excellence in a student project that is devoted to open-ended engineering design.

Harry Clinch Book Prize: Established in 1982 by friends and colleagues to honour retiring Professor Harry Clinch, founder of the Geography Department. Eligibility: Open to all full-time students in the Geography Department. Selection is done by the Chair of the Department.

Lindsay Crysler Award: Established by students, colleagues and friends in honour of Professor Lindsay Crysler, longtime teacher and Director of the Department of Journalism, on the occasion of his retirement. Eligibility: Open to all students entering the first year of undergraduate studies within the Department of Journalism. Selection will be made by a Committee of the Department, which will take into consideration the following material extracted from the student's application for admission: 1. Transcript of marks; 2. The "letter of intent"; 3. The English proficiency scores. For further information, students should contact the Department of Journalism: (514) 848-2465.

Ann Duncan Award for the Visual Arts*: Established in 1997 by the Leonard \& Bina Ellen Art Gallery to honour the memory of Montréal art critic Ann Duncan, who, through her writings on the arts, played a significant role in supporting the work of artists in the early stages of their careers. Used to fund an internship at the Ellen Art Gallery, the Ann Duncan Award for the Visual Arts will allow a student to pursue a research project in his/her area of interest. The project should reflect the museological activities of an art institution dedicated to the collection, presentation and interpretation of Canadian art. Eligibility: Awarded annually to a full-time undergraduate student enrolled in a program in the Department of Studio Arts and/or Art History who has completed a minimum of 24 credits and maintained a minimum $\mathrm{B}+$ average at Concordia University.

Dr. Ed Enos Athletic Excellence Award: Established in 1998 through the generosity of family and friends on the occasion of Dr. Ed Enos' induction into the Concordia University Sports Hall of Fame. Awarded by the Undergraduate Scholarships and Awards Committee with the assistance of the Director of Recreation and Athletics and in compliance with CIAU regulations. Eligibility: Granted to a full-time student whose Major is Exercise Science, on the basis of academic and athletic merit.

Henry Gamer Award for Acting*: Established in 1991 by Mrs. Sarah Gersovitz in the name of her brother, the actor Henry Gamer. The intent of the award is to recognize the most outstanding single performance each year by a graduating theatre student. Eligibility: Open to a full-time student in Theatre.

Garnet Menger Award*: Established in 1990 in memory of the notable musician and teacher, Garnet Menger. This award is given annually to an outstanding student in any Department of Music program. The award acknowledges accomplishment in both academic and student life activities. Application forms are to be accompanied by two letters of reference from full- or part-time faculty in the Department of Music and are available from the Department of Music. The scholarship is awarded in May of each year, and the deadline for applications is April 15.

Cynthia Gunn Journalism Award*: Established in 1981 by family and friends to honour the memory of the late Cynthia Gunn, a reporter with The Montreal Star and The Gazette. Eligibility: Open to all prospective journalists enrolled in a second- or third-year Journalism program who are full- or part-time students. Applicants are judged on the basis of marks, published work (if any), and written work produced for Journalism workshops. Applications must be made to the Director of the Department of Journalism, and must include a current transcript, two samples of written class work, and two samples of published work.

Lewis Harris Memorial Award: Established in 2000 in memory of the late Mr. Lewis Harris through the benevolence of his friends and colleagues, this award is open to qualified undergraduate students in the Department of Journalism. It is given on an annual basis to full-time undergraduate students who are finishing their second year and have successfully completed JOUR 302 (Reporting Methods). Selection takes into account the students' performance and work submitted for this course, and is made by a committee within the Department of Journalism.

Irving Layton Award for Creative Writing*: Established in 1988 by the Department of English, with the support of friends and colleagues, to honour one of Montréal's, and Canada's, finest poets. Irving Layton's association with Concordia University includes many years as a generous and inspiring teacher, distinctive service as writer-in-residence on several occasions, and Adjunct Professor of English. Eligibility: Open to students who are completing the last 30 credits of their program, and who have demonstrated excellence in the writing of poetry, fiction, or drama. For further information and application forms, contact the Chair of the Department of English: (514) 848-2340 or 848-2320.

Graham Marks Memorial Award*: Established in 1985 by Ester Spevack Marks in memory of her late husband, Graham Marks, who, after spending a lifetime building a successful retail business, returned to University to complete a degree in Human Social Science and entered the counselling profession. Eligibility: Open to part-time students who show promise in their studies, but who, because of financial circumstances, are unable to attend the seminar program of the Centre for Human Relations and Community Studies. For an application, contact the Director of the Centre by January 31: (514) 848-2273.

Peter Matthews Memorial Award: Established in 1987 by his family to honour the memory of Peter Kent Matthews, who passed away in 1986. Eligibility: Available to all full-time Computer Science students who have completed a minimum of 30 credits in the program, and are entering the second or final year of their undergraduate program, or entering the first or second year of a Master's program. Candidates must demonstrate community service and involvement in addition to academic excellence. Application forms are available at the Financial Aid and Awards Office. Application deadline is August 15. Recipient selection is done by the Faculty of Engineering and Computer Science.

Helen McNicoll Art Prize Established by Betty Ann Elliott: Established in 1975 in honour of Helen Galloway McNicoll, an impressionist painter, born in Toronto in 1879, died in Dorset, England in 1915. The prize was established by her niece, the late Betty Ann Elliott, to honour the work of this profoundly original and technically accomplished Canadian artist. Eligibility: This prize is awarded in alternate years to third-year students in Visual Arts and Art History who have shown exceptional talent. Selection is made upon the recommendation of the Faculty of Fine Arts.

Louis Muhlstock Drawing Prize*: Established in 1984 by Mr. Muhlstock to recognize the outstanding accomplishments of Fine Arts students. Eligibility: Open to a full-time undergraduate Fine Arts student whose Major is Painting and Drawing or Studio Arts. The award will be given on the basis of artistic talent to students who are registered in one of the 300- or 400 -level Drawing courses. For further information and an application, contact the Chair of the Department of Studio Arts: (514) 848-4262.

Frank B. Walker Journalism Awards*: Established in 1995 to honour the memory of the late Frank Walker (1916-1985), editor-in-chief of The Montreal Star from 1968 to the paper's close in 1979. Eligibility: Two awards are made available to deserving students in the Department of Journalism to encourage and recognize excellence in writing. One award is available to a student completing the first year, and another to a student completing the second year of the Journalism program.

Heather and Erin Walker Humanitarian Award: Established in 1995 by the Faculty of Fine Arts through the donations of colleagues and friends to honour the memories of Heather Walker and her daughter Erin. An academic adviser in the Office of Student Affairs of the Faculty of Fine Arts, Heather Walker represented our best attitude toward students and both she and her daughter Erin were dedicated to humanitarian organizations such as Families for Children, Development and Peace and H.O.P.E. Eligibility: Awarded annually to a full- or part-time student enrolled in a Bachelor of Fine Arts. Selection is made by the Office of Student Affairs upon recommendation of full- or part-time faculty members, based on demonstration of humanitarian service while in pursuit of excellence in academic, artistic, and community service or related endeavours.

### 300.6 ENTRANCE BURSARIES

Concordia University Alumni Association Ottawa Chapter Entrance Bursary: Established in 1999 by the Ottawa Chapter of the Concordia University Alumni Association. This entrance bursary is applicationdriven and the selection is done by the Undergraduate Scholarships and Awards Committee. Eligibility: This non-renewable entrance bursary is open to all full-time newly admitted students to Concordia University who are permanent residents of the National Capital Region, or should there not be such a candidate, a permanent resident of Eastern Ontario or Western Québec. This bursary is awarded on the basis of financial need and satisfactory academic standing.

Howard Davidson Bursary*: Established in 1996 through the generosity of Howard Davidson, BComm, a graduate of Concordia University. Eligibility: This renewable entrance bursary is granted to a scholastically and financially deserving full-time undergraduate student in the John Molson School of Business, preferably pursuing a Major in Accountancy. This bursary is renewable to a maximum of two additional years.

MAR-KIN Foundation Entrance Bursary: Established in 2000 through the generosity of the MAR-KIN Foundation to encourage full-time students who have limited financial resources to pursue undergraduate studies at Concordia University. These entrance bursaries provide coverage of annual tuition and fees, and textbook costs. They are available to Canadian Citizens who are considered to be Québec residents according to the definition used by the Ministry of Education. Students must enrol in a full course load, with a minimum of 15 credits in the Fall, and 15 credits in the Winter. Applicants must have completed their cégep studies in the year prior to applying for this bursary. Application forms are available from the Financial Aid and Awards Office. The deadline to submit applications is March 1. MAR-KIN Foundation Entrance Bursaries are renewable based upon successful completion of all courses, and continued registration of a full course load ( 30 credits) throughout the tenure of the award.

Carolyn and Richard Renaud Entrance Bursaries*: Established in 1998 through the generosity of Carolyn and Richard Renaud, these entrance bursaries will be offered to newly admitted undergraduate students who are beginning, for the first time, a full-time program of study at the university level. The entrance bursary may be renewed if the candidate maintains satisfactory academic standing as per the University's academic regulations, as well as a full-time course load ( 24 credits) for each year in which the award is tenable. Each bursary may be renewed twice for a maximum of three years, except for students in programs of longer duration.

George and Henry Tutsch Entrance Bursary: Established in 1999 through the generosity of the family of George Tutsch. This bursary is dedicated to George Tutsch, a strong supporter of post-secondary education and continuing education programs, and Dr. Henry S. Tutsch, a former Commerce faculty
member of Sir George Williams University and Concordia University. It is available to newly admitted full-time Commerce and Administration students pursuing a Minor in Entrepreneurship and Small Business Management and/or majoring or minoring in Management. This bursary is renewable twice for a maximum of three years based upon full-time status and academic achievement. Applicants must submit an essay which reflects an interest in and flair for entrepreneurship along with the application.

### 300.7 CONCORDIA UNIVERSITY IN-COURSE BURSARIES

Students must apply in order to receive in-course bursaries. The application form is available in the Financial Aid and Awards Office and completed applications should be returned to the Financial Aid and Awards Office by December, unless otherwise stated. The Financial Aid and Awards Office reserves the right to extend the application deadline to ensure that sufficient number of applications have been received.
The value of each award may fluctuate yearly depending upon current interest rates. Unless stated otherwise, awards are given to full-time students who are Canadian Citizens or Permanent Residents. Please note that award recipients may hold only one of the following types of awards in a given academic year:

> - Concordia University Entrance Scholarships
> - Concordia University In-course Scholarships
> - Concordia University In-course Bursaries

Concurrent tenure of the aforementioned awards is not allowed unless expressly authorized by the University Undergraduate Scholarships and Awards Committee.

## Open to Students in Any Faculty

All-Canadian Football Achievement Bursary: Created by Nestlé to recognize the outstanding performance of Canadian football players, this bursary is granted to an athlete who has at least one year of playing experience with the Concordia University football team. Eligibility: The recipient must have completed a minimum of 24 full-time credits at Concordia University, with a cumulative GPA of at least 3.30 . This award is available to undergraduate or graduate students. For further details, see the Football Coach in Recreation and Athletics: (514) 848-3858.

Arab World International Bursary: Established in 1995 by Concordia University through the generosity of a number of Arab Gulf States. This bursary is intended to assist International students from the Arab world during their studies at Concordia University. Eligibility: Open to deserving International students who can demonstrate citizenship of any member state of the League of Arab States, or who, while stateless, reside in an Arab League state.

Association of Alumni of Sir George Williams University Bursaries: Established in 1988, through the generosity of the Association of Alumni of Sir George Williams University. Eligibility: Open to all full-time undergraduate students.

Cornelia Bingulac Bursary for Part-Time Students: Established in 2001 to assist academically deserving part-time students. Candidates must be enrolled in an undergraduate degree program, have completed at least one year of part-time studies, and be experiencing considerable financial hardship which requires an urgent financial response. Selection is made by the Director of the Financial Aid and Awards Office in consultation with the Dean of Students. Potential candidates may be nominated by any Student Services employee at Concordia University. Those fitting the criteria for this bursary may also apply in writing to the Director of the Financial Aid and Awards Office.

Birks Family Foundation Bursaries: The Birks Family Foundation has established a plan of annual contributions to the Student Aid Fund of recognized Canadian universities for the creation of the Birks Family Foundation Bursaries. These bursaries are awarded by the Foundation on the recommendation of the Bursary Selection Committee. They are not restricted to any faculty or course year, and may be renewed. The number and amount of awards may vary annually depending upon the funds available for this purpose from the Foundation.

Donald Buchanan Bursary: Established in memory of Donald Buchanan by friends in 1977. Eligibility: Open to all full-time undergraduate students.

Campaign for the New Millennium Bursaries: Established in 1999 through the generous commitment of students to Concordia University's Campaign for the New Millennium. Eligibility: Available to students studying full- and part-time in the Faculties of Arts and Science, Fine Arts, and the John Molson School of Business.

Chadha Family Foundation's Indo-Canadian Award: Established in 1999 through the generosity of the Chadha family as part of a national project to mark a century of Sikh and Indo-Canadian presence in Canada. This anniversary coincides with the tricentenary of the Khalsa, the Sikh faith. Eligibility: This renewable bursary is available to all full-time students. Preference will be given to students who were born in India or who have at least one parent or grandparent who was born there, or students who form a part of a historically disadvantaged group, that is, aboriginal people, visible minorities and persons with disabilities. Renewability is based upon full-time status and the student must maintain a minimum GPA of 2.75 .

Concordia University Bursaries: Established in 1990 by Concordia University, these bursaries are available to full- and part-time students who are Canadian Citizens, Permanent Residents and International students.

Concordia University/Bank of Montréal Affinity Card Emergency Bursaries: Established from proceeds received from the Concordia/Bank of Montréal Affinity Credit Card, these bursaries will fund financially needy full-time undergraduate students.

Concordia University Shuffle In-course Bursaries: Established through the participation and generosity of the University Community and Friends of Concordia. The Concordia Shuffle consists of a fund-raising "Walk-a-Thon" each year between the Sir George Williams and Loyola Campuses of Concordia University. A number of bursaries are awarded on the basis of scholastic achievement combined with financial need. Eligibility: Open to full-time undergraduate students in any faculty including International students and disabled part-time students. Applicants must have completed at least one full-time term of study at Concordia University.

Concordia University Alumni Association, Inc. Bursaries: Established in 1993 through the generous support of Concordia University alumni. Eligibility: The fund supports a number of bursaries that are awarded to full-time students in any faculty who are deserving, scholastically and financially.
J.P. Copland Memorial Bursary: Established in 1972 by the family of J.P. Copland. Eligibility: Open to all full-time undergraduate students.

Cecilia Crysler Bursary: Established by family and friends to honour a woman whose own aspirations to attend university were never fulfilled, but who subsequently became a friend and confidante to Concordia University students for over a decade. Eligibility: Awarded to a needy and deserving female first-year undergraduate student.

Crane Fund for Widows and Children Bursary: The Crane Fund for Widows and Orphans supports an annual bursary for Concordia University students. Eligibility: Open to all undergraduate students. Preference will be given to widows or orphans who display financial need.

Ecosense and Concordia University Alumni Association Inc. Bursary: Established by Ecosense (1978-91), a non-profit organization that actively promoted care of the environment, recycling, and the rational use and management of resources. Established also through a generous gift from the Concordia University Alumni Association, Inc. Eligibility: Proven active participation in promoting environmental awareness or improvement at the community level (i.e. involved in a grass roots movement such as QPIRG). The candidate should also demonstrate how he/she intends to orient his/her knowledge or degree towards improving the environment in the future. The candidate must be a full-time registered student at Concordia University in any field of study. The application should contain a copy of the student's curriculum vitae, a covering letter and a Concordia University transcript.

Friends of Concordia Bursary: Established through contributions from various foundations, corporations, alumni, members of the University community, and Friends of Concordia. Contributors to this award include endowment funds from Douglas Devenne, Bal Dobbs, Isidore Frishling, Dick MacDonald, Harry Pinker and Walter Stenhouse. Eligibility: Awarded at the discretion of the Undergraduate Scholarships and Awards Committee, in recognition of academic achievement, to undergraduate students.

Brahm \& Jo Jo Gelfand Bursary: Dedicated to Brahm and Jo Jo Gelfand, this bursary was established in 2000 through the generosity of the Carolyn and Richard Renaud Endowment with additional contributions from Brahm and Jo Jo Gelfand, and is intended for deserving undergraduate students in any faculty. Eligibility: Awarded on the basis of financial need and academic merit, The Brahm and Jo Jo Gelfand Bursary is open to Canadian and Permanent Resident students who have completed at least one year of full-time undergraduate studies in any faculty.

Peter Glasheen Memorial Bursary: Established in 1986 by friends, associates, and family of the late Peter Glasheen as a tribute to the spirit of his life, a major aspect of which was his abiding commitment to young people, their education, and their future. Eligibility: Open to all full-time undergraduate students.

Ellen Greenwood Ornstein Memorial Bursary: Established in 1991 in memory of Ellen Greenwood Ornstein by her family through the Henry and Bernice Kaufmann Foundation. Ellen Greenwood Ornstein graduated from the University in 1972. Eligibility: Awarded to a scholastically and financially deserving student.
F.P. Higgins Memorial Bursary: Established in 1991 by the late Francis Philip Higgins, this bursary is awarded to a francophone undergraduate student on the basis of scholastic achievement and financial need. Eligibility: Applicants must submit a copy of their high school and cégep transcripts, showing they pursued their studies in French, along with their In-course Bursary application form.

Ralph B. Hood Memorial Bursary: Established in 1973 by the late Ralph B. Hood, with the intention of assisting needy and deserving young students. Eligibility: Open to all full-time undergraduate students.

Japanese-Canadian Bursary: Established in 1984 in memory of Japanese-Canadians who served in the Canadian Forces in World Wars I and II. Eligibility: Awarded to a needy and deserving undergraduate student.

Joseph Gilbert Joyce Memorial Bursary: Established in 1967 in honour of the late Reverend Joseph Gilbert Joyce who, during his 24 -year ministry at Verdun United Church, maintained a deep interest in the evening division of the University. This bursary was established in accordance with his conviction that knowledge and higher education should be available to those who seek to make a creative contribution to the development of mankind. Eligibility: Awarded to a part-time undergraduate student, on the basis of academic standing, financial need, and promise in his/her chosen field of study.
T.J. Madden Bursary: Established by the Senior Students' Appeal Committee to honour the late T.J. Madden, a founding member of the Senior Non-Credit Program. Eligibility: This renewable bursary is awarded annually to a full-time, first-year undergraduate student. It is renewable twice for a maximum tenure of three years, provided the recipient maintains full-time status and achieves a GPA of no less than 3.0
S.H. McNeilly Bursary: Established in 1963 by Mrs. Mary McNeilly in honour of her late husband, S.H. McNeilly. Eligibility: Open to all part-time students who can prove employment with the Canadian Pacific Railway Company. If no suitable candidates are found, it will be offered to other students.

Carolyn and Richard Renaud Bursaries: Established in 1998 through the generosity of Carolyn and Richard Renaud, these in-course bursaries are offered to full-time undergraduate students who have completed at least one semester of study at the University. These bursaries will be granted on the basis of scholastic merit and personal financial need. These bursaries are non-renewable, although recipients may apply in successive years.

Miriam Aaron Roland Emergency Bursary: Established in 1999, this bursary is available to full-time students who are experiencing considerable financial hardship which requires an urgent financial response. Selection is made by the Director of the Financial Aid and Awards Office in consultation with the Dean of Students. Potential candidates may be nominated by any Student Services employee at Concordia University.

Royal Albert Edinburgh Lodge Bursary: Established by the Royal Albert Edinburgh Lodge during the late 1960s. Eligibility: This bursary is awarded to (a) children of members of the Royal Albert Edinburgh Lodge, OR (b) children of members of other Masonic Lodges. If neither (a) nor (b) qualify, any worthy student may apply and receive this bursary at the discretion of the Bursary Selection Committee. Applicants will be required to demonstrate proof of (a) or (b) above.

St. Andrew's Society Bursary: Established in 1971 by the St. Andrew's Society of Montréal. Eligibility: This bursary is open to all full-time students. Applicants will be required to demonstrate proof of Scottish birth or ancestry.

Inge Thurm Memorial Bursary in Women's or Gender History: Established in 1997 through the generosity of friends and colleagues of Dr. Rosemary Schade on the occasion of her marriage. The bursary is named in honour of Dr. Schade's mother, Mrs. Inge Thurm. Eligibility: Awarded annually to a full-time undergraduate or graduate student (in alternating years) in the Department of History.

Nancy Torbit Memorial Bursary: Established in 1998 through the generosity of the family, friends and colleagues in memory of Nancy Torbit, former Director of Health Services. Eligibility: Open to all fulltime students regardless of field of study.

University Women's Club of Montréal Bursary*: The University Women's Club of Montréal Public Foundation offers two bursaries to mature women who are enrolled in full-time undergraduate study at Concordia. Eligibility: Awarded to students who have completed preferably two years in an under-
graduate program. Both financial need and academic standing are considered when determining the successful candidates. Application forms are available at the Financial Aid and Awards Office, and must be submitted by April 1.

Fred Weinstein Bursary: Established in 1997 as a bequest of Mr. Fred Weinstein. Eligibility: Open to all undergraduate students.

## Open to Students in the Faculty of Arts and Science

Joel and Jeffrey Birenbaum Memorial Bursary: Established in 1972 in memory of Joel Birenbaum, a former student of Sir George Williams University, and renamed in 1992 in remembrance of Jeffrey Birenbaum, the father of Joel Birenbaum. Eligibility: Open to all full-time undergraduate students.

Ethel Campbell — P.E.O. Memorial Bursary: Established in 1967 by Colin C. Campbell in loving memory of his wife, Ethel May Routledge Campbell. Eligibility: Open to all full-time undergraduate female students.

## Biology

Donald L. Peets Bursary: Established in 1990 in recognition of the contributions made by Donald L. Peets to student life and services during his many years of association with Sir George Williams University and Concordia University as a teacher and administrator. Eligibility: Open to all full-time undergraduate students in the Biology Department.

## Chemistry

Henry I. Chinks Memorial Bursary: Established in 1965 in memory of the late Henry I. Chinks, Vice-President, Avmor Ltd.. Eligibility: Preference is given to part-time Chemistry students.

## English Literature

Arianne Johnston-Kip Little Memorial Bursary: Established in 1992 by family and friends in memory of Arianne Johnston and Kip (Christopher) Little, former English students at Concordia University. Eligibility: Open to all full-time undergraduate students in the English Department. Every second year, the bursary will be given to a mature student.

## Geography

Maria Ildiko Beardsley Memorial Bursary: Established in 1997 by family and friends of Maria Ildiko Beardsley. Eligibility: Awarded to an undergraduate student in the Department of Geography pursuing full-time study in an Urban Studies program.

## Journalism

Mix 96 - Nick Auf der Maur Memorial Bursaries: Established by Mix 96 in 1989 to reward students who show promise in their field of study, two bursaries will be awarded annually to one female and one male student in the Communication Studies or Journalism programs. Eligibility: Awarded on the basis of academic achievement and financial need. Applicants will be required to submit a short essay on the role of radio in the Montréal community. For further information, contact the Chair of either the Department of Communication Studies or Journalism: (514) 848-2465.

Nick Auf der Maur Award: Established in 1999, this award is available to deserving undergraduate students in the Department of Journalism, or the Department of Communication Studies. Eligibility: Open to students in a Major in either Journalism or Communication Studies, who have completed a minimum of 12 credits towards their Major. Applicants must provide a written personal statement indicating their special areas of interest, concerns, and personal motivation in the field of Journalism or Communications.

## Philosophy

Ernest Haznoff Memorial Bursary: Established in 1964 in memory of the late Ernest Haznoff (BSc 1959). Eligibility: Open to any full-time undergraduate student pursuing a Major or Honours in Philosophy.

## Political Science

Marjorie S. Dewitz Bursary: Established in 1988 by friends and colleagues of Marjorie Dewitz on the occasion of her 70th birthday. Eligibility: Awarded to a full-time female student who is a Canadian Citizen or a Permanent Resident, pursuing a Major in Political Science. The recipient will be selected by the Undergraduate Bursary Selection Committee on the basis of nominations received from the Chair of the Political Science Department.

Hannah Amiouny Bursary: Established in 1998 in memory of Hannah Amiouny by friends and family. Eligibility: Awarded to a full-time undergraduate student in the Political Science Department.

## Sociology and Anthropology

Tammy Bedford and Gary Byng Memorial Endowment Bursary: Established in 1996 by the parents of Tammy Bedford in memory of both Tammy Bedford and her friend Gary Byng. Eligibility: Awarded to deserving undergraduate students in the Faculty of Arts and Science, Department of Sociology and Anthropology, pursuing a Major in Sociology with an interest in Third World countries.

Concordia University Undergraduate Field Work Association Bursary*: Established in 1996 by the Concordia Undergraduate Field Work Association to provide in-course bursaries to deserving undergraduate students who are intending to undertake field work. Eligibility: Awarded to deserving students pursuing a Major, Honours or Specialization program in these participating departments: Classics, Sociology or Anthropology. Students must have completed 18 credits and must submit a proposal along with the in-course bursary application form. A minimum GPA of 3.0 is required.

## Science College

Ruth Richer Bursary: Established in 2000 by Ruth Richer's family, in her memory, this bursary is open to deserving full-time undergraduate students who are currently members of the Science College.

## Open to Students in the John Molson School of Business

Theodore Ronis Memorial Bursary: Established through the National Council of Jewish Women of Canada and by his friends, in memory of the late Theodore Ronis to honour his friendship. Eligibility: Awarded annually to a deserving student studying (preferably, but not necessarily) towards a Bachelor of Commerce degree. Preference will be given to a male student.

Jean-Paul Vallée/Royal LePage Bursary: Established in 1987 by family, friends, and associates to honour the late Jean-Paul Vallée. Eligibility: Awarded annually to a full-time undergraduate student.

## Accountancy

Professor James Gilchrist Finnie Bursary: Established in 1976 by faculty and staff of Sir George Wiliams University, former students, colleagues, and business friends in recognition of Mr. Gilchrist Finnie's many years of devoted service to the University. Eligibility: Awarded annually, on the basis of merit and/or need, to an undergraduate student who is pursuing a Major in Accountancy, and entering his/her final year. Selection shall be at the discretion of the In-course Bursary Selection Committee.

Maurice Gold Memorial Bursary: Established by family, friends, and colleagues of Dr. Maurice Gold, a former faculty member of the Department of Accountancy. Eligibility: Awarded to an undergraduate student pursuing a Major in Accountancy who is deserving, both academically and financially.

Nathan H. Messer Bursaries: Established in 1971 by business associates and clients of Nathan H. Messer on the occasion of his retirement. Eligibility: Two bursaries are awarded annually to financially deserving students entering their final year, who are pursuing a Major in Accountancy. Awards are made following consultation with the Chair of the Department.

Schwartz Levitsky Feldman Bursary: An annual in-course bursary established through the generosity of the Schwartz Levitsky Feldman accounting firm. Eligibility: This non-renewable bursary is available to second- or third-year full-time students pursuing a Major in Accountancy. The bursary is granted on the basis of financial need and good academic standing.

## Administration

Institute of Chartered Secretaries and Administrators in Canada (Québec Branch) Bursary: Established in 1995 by the ICSAC for a three-year period to recognize outstanding students. Eligibility: Open to all undergraduate Administration Majors.

## Open to Students in the Faculty of Engineering and Computer Science

Engineering and Computer Science Graduating Class Bursary: Established in 2000 through the generosity of participating Engineering and Computer Science students from 1994 to 1999 to provide for one bursary in the Faculty of Engineering and Computer Science. Eligibility: Open to deserving Canadian and Permanent Resident students in Bachelor's programs in the Faculty of Engineering and Computer Science, who have completed at least one year of full-time studies (for students who have registered in the fall, one semester of full-time study). Preference will be given to students who have participated in ECA (Engineering and Computer Science Association) activities, as demonstrated through their personal statement on the In-Course Bursary application form.
ITT Flygt Bursary in Engineering: Created in 2000 through the generosity of ITT Flygt to support and encourage deserving Engineering students in Concordia's Faculty of Engineering and Computer Science. Eligibility: Awarded on the basis of financial need and academic merit, to Canadian and Permanent Resident students in Engineering, who have completed at least one year of full-time undergraduate studies.

Myer F. Pollock Bursary: Established in 1971 by Mrs. Bess Pollock on the occasion of her husband's 60th birthday. Eligibility: Open to all students within the Faculty of Engineering.

## Computer Science

Ruth Richer Bursary: Established in 2000 by Ruth Richer's family, in her memory, this bursary is open to deserving full-time undergraduate students who are currently members of the Science College.

## Industrial Engineering

Nissan Canada Inc. Award in Automotive Engineering: Established in 1999 through the generosity of Nissan Canada Inc., for undergraduate students in the Faculty of Engineering and Computer Science in the field of Automotive Engineering. Eligibility: Available to all Engineering and Computer Science students who are entering their final year of full-time studies in Mechanical or Industrial Engineering. Applicants must be active members of Concordia's Student Chapter of the Society for Automotive Engineers (SAE), who have participated or are participating in SAE student competitions.

## Mechanical Engineering

AlliedSignal Aerospace Inc. Bursary: Established in 1998 to provide for one annual in-course bursary by AlliedSignal, which is one of the world's premier companies, distinctive and successful in the aerospace industry. Eligibility: This non-renewable bursary is granted by the University to a secondor third-year full-time undergraduate student in Mechanical Engineering. The award is granted on the basis of financial need to a student in good academic standing.

Nissan Canada Inc. Award in Automotive Engineering: Established in 1999 through the generosity of Nissan Canada Inc., for undergraduate students in the Faculty of Engineering and Computer Science in the field of Automotive Engineering. Eligibility: Available to all Engineering and Computer Science students who are entering their final year of full-time studies in Mechanical or Industrial Engineering. Applicants must be active members of Concordia's Student Chapter of the Society for Automotive Engineers (SAE), who have participated or are participating in SAE student competitions.

## Open to Students in the Faculty of Fine Arts

Faculty of Fine Arts Development Fund Bursaries: The Faculty of Fine Arts offers a number of bursaries, made possible by donations to its Faculty Development Fund. Eligibility: Open to students in the Faculty of Fine Arts who are financially deserving. Equal distribution along gender lines is desired. Selection is done by the Fine Arts Department from among those students who have applied for an in-course bursary.

Bruno and Stella Lebel Fine Arts Bursary: Established in 1981 in memory of the late Bruno and Stella Lebel. Eligibility: Awarded to a student in the Faculty of Fine Arts on the basis of financial need and high academic standing.

## Art Education

Buddy Abrams Shizgal Memorial Bursary: Created in 2001 by Buddy Abrams Shizgal's family, friends, and colleagues in her memory. This bursary is available to full-time students enrolled in Art Education and Studio Arts programs within the Faculty of Fine Arts, with preference given to students in Mature Entry Programs. Should there be no Mature Entry Program candidates, students in regular-length Art Education and Studio Arts programs will be considered.

## Cinema

André Bazin/George Sadoul Film Award: One of several staff- and faculty-supported awards, this was established in 1979 to honour a student in the Department of Cinema. Eligibility: Awarded annually to deserving students for outstanding work in Film Studies. This award is presented at the year-end screening within the Cinema Department.
a.s.a. Ani-Award: One of several staff- and faculty-supported awards, this was established in 1991 to honour a student in the Department of Cinema. Eligibility: Contact the Department of Cinema for further information: (514) 848-4666.

Jean-François Bourassa Memorial Bursary: Established in 1996 by family, friends, and colleagues in memory of Jean-François Bourassa, a talented film-maker and former student in the Department of Cinema at Concordia University. Eligibility: Awarded annually to a second-year film production student who has demonstrated an outstanding and creative use of cinematography in film-making, and has declared an interest in pursuing a professional career as a director of cinematography.

Cinar Award: One of several staff- and faculty-supported awards, this was established to honour a student in the School of Cinema. Eligibility: Contact the School of Cinema for further information: (514) 848-4666.

Matthew Czerny Award: This award commemorates a young man who combined striking talent with a generous, collaborative personality. He died in a climbing accident in September 1995, just before his last year of studies towards his degree in film production. Eligibility: Granted to support the production of a documentary film by a second- or third-year Cinema student. Judging is to be based on proposed scripts. Selection is done exclusively by the School of Cinema

William K. Everson Award: One of several staff- and faculty-supported awards, this was established to honour a student in the Film Studies Program. Eligibility: Selection is done exclusively by the School of Cinema.

Philip Russel George Award: One of several staff- and faculty-supported awards, this was established to honour a student in the Film Production Program. Eligibility: Selection is done exclusively by the School of Cinema.

Zlatko Grgic Award: One of several staff- and faculty-supported awards, this was established to honour a student in the Film Animation Program. Eligibility: Selection is done exclusively by the School of Cinema.

Mel Hoppenheim Award: This annually funded award is made possible by the donation of Mr. Mel Hoppenheim, President of Cité du Cinéma. This award has been granted since 1985 in recognition of an outstanding student in the Film Production Program. Eligibility: Selection is done exclusively by the School of Cinema.

## Contemporary Dance

James Saya Memorial Bursary: Established in 1991 by the Contemporary Dance Department in memory of a colleague and friend, James Saya. Eligibility: Awarded annually to a full-time undergraduate student whose Major is Contemporary Dance and who is entering his/her second or third year of study in the program. The recipient will be selected by the Chair of the Department in consultation with the Financial Aid and Awards Office.

## Studio Arts

George Balcan Bursary: Created through the donations of George Balcan's wife and his friends to mark his 60th birthday in 1991. George Balcan spent more than 25 years as the morning host of CJAD radio. He is also an accomplished pastel artist and a member of the Canadian Pastel Society. His works have won numerous awards and are included in several significant Canadian collections. Eligibility: The recipient is selected based on the recommendation from the Chair of the Department of Studio Arts and whose Major is Painting and Drawing.

John Jackman Bursary: Established by Mrs. Beth Swayne Jackman in memory of her husband, John Jackman, a former student in the Faculty of Fine Arts. Eligibility: Awarded annually to a student in a visual arts Major relating to Studio Art practice. The award will be given on the basis of scholastic achievement, demonstration of talent in the discipline of study, and financial need.

Jack Lehman Bursary: Established in 1987 by the friends of Jack Lehman on the occasion of his 60th birthday. Eligibility: Open to all first-year students in the Ceramics section of the Department of Studio Arts.

Alfred Pinsky Emergency Bursary: Established by a group of anonymous donors in 1987 to assist financially needy and deserving students in dire need of financial help, this bursary allows students who may otherwise withdraw from school due to a lack of resources to continue their education at Concordia University. This bursary is reserved for crisis situations. Eligibility: Recipients are recommended by the Department of Studio Arts. This award is not open for competition or application.

Buddy Abrams Shizgal Memorial Bursary: Created in 2001 by Buddy Abrams Shizgal's family, friends, and colleagues in her memory. This bursary is available to full-time students enrolled in Art Education and Studio Arts programs within the Faculty of Fine Arts, with preference given to students in Mature Entry Programs. Should there be no Mature Entry Program candidates, students in regular-length Art Education and Studio Arts programs will be considered.

Sarah Singer Memorial Bursary: Established by Dr. Abraham Singer in memory of his sister Sarah, an artist and graduate of the Faculty of Fine Arts of Concordia University. This bursary is to help a financially and academically deserving student studying in the Department of Studio Arts. Eligibility: Awarded to a full-time undergraduate student in the Department of Studio Arts.

## Theatre

Jeffrey David Skowronski Dramatic Arts Bursary: Established in 1988 by the Skowronski Family in memory of their son, Jeffrey David. Eligibility: Awarded annually to a full-time undergraduate student whose Major is Theatre.

## Loyola Foundation Inc. Bursaries

Several endowment funds which originated from donors wishing to support Loyola College allowed for the establishment of these bursaries. Their donations were turned over to the Loyola Foundation shortly after the Foundation's creation in 1973 to be used for objectives, activities and purposes that would "foster and maintain the tradition and spirit of Loyola College," irrespective of the major structural changes anticipated at the time. It is the continuing wish of the Foundation that these bursaries encourage and support the education of persons of good character who respect and share the tradition and spirit of Loyola College.
The awards funded by the Loyola Foundation consist of a variable number of bursaries of $\$ 1,000$ each. The bursaries shall be subject to annual renewal.
This endowment is the amalgamation of the following awards:

The Dr. William Atherton History Prize Fund
The Ursula Carling Fund
The Mrs. John Moriarty Fund
The St. Ignatius Men's Association Fund
The Clive Moore Memorial Fund
The George V. Uihlein Jr. Memorial Fund
The O'Hearn and O'Connor History Prize Fund
The Loyola Alumni Association Fund
The James Webber Trust Fund
The Clarence G. Smith Memorial Fund

The Susan Langley Fund
The Loyola Evening Students' Fund
The Professors McGuigan and McPhee Fund
The Francis J. Dowling Fund
The Lilley F. Barry Fund
The Kenneth J. McArdle Memorial Fund
The Charles J. Brown Memorial Fund
The Gordon Bennett Memorial Fund
The Avon Products of Canada Fund

Eligibility:

- available to full-time students in an undergraduate program at Concordia University who are, themselves, or who have an ascendant who was a graduate of Loyola High School or Loyola College;
- required presentation of a duly completed application form establishing financial need in the judgement of Concordia University;
- renewable annually on a new application subject to continuing full-time involvement, satisfactory academic progress and continuing financial need in the judgement of Concordia University.
Application:
Interested candidates must submit a completed University In-course Bursary application form along with proof of relationship with the ascendant.


## Concordia University Senior Student Bursary Program

Concordia University has, for many years, endeavoured to facilitate access to university studies for senior citizens. The University is happy to offer bursaries to help defray the tuition cost of Senior students' studies. These bursaries are non-renewable, but recipients may apply in successive years.

- Eligibility: Applicants must be 65 years of age or over, and registered as full- or part-time students at Concordia University. Senior Independent, senior undergraduate or graduate students are eligible for this bursary.
- Value of Bursaries: The value is $\$ 25$ per credit for each level of study.
- Approval Process: Recipients will be selected on the basis of progress in their studies, and a personal statement indicating their financial need and how this bursary would be of assistance to them.
- Application Deadline: Application forms are available at the Financial Aid and Awards Office, and must be returned to this office by the following deadlines:
October 1 for students beginning or continuing their studies in the Fall Term.
February 1 for students beginning their studies in the Winter Term, or for those who become eligible during the Fall Term.


## Graduate programs

# 400 <br> GRADUATE PROGRAMS 

Dean<br>Administrative Director<br>ELIZABETH J. SACCÁ<br>JOANNE BEAUDOIN

Associate Dean
JAMES E. JANS

|  |  |  |
| :--- | :--- | :--- |
| Location | School of Graduate Studies | The office is located at: |
|  | 1455 de Maisonneuve Blvd West | 2145 Mackay Street |
|  | Montréal, Québec | (514) $848-3800$ |
|  | H3G 1M8 |  |

## SCHOOL OF GRADUATE STUDIES

The graduate programs offered by the University are divided into doctoral, master's, diploma and certificate programs. Doctoral programs offer students the opportunity to carry out fundamental and applied research. The results of this research are presented in the form of a thesis containing an original contribution to knowledge. Master's and doctoral theses are defended in public examinations.
The length and specific format of a doctoral thesis is discipline dependent. All doctoral programs require the passing of comprehensive examinations and a minimum of 90 credits of study. At the master's level, the University offers a variety of thesis and non-thesis options. All master's programs require a minimum of 45 credits. Some master's programs also have a comprehensive examination. The academic goals of the graduate diploma programs are somewhat different from those of doctoral and master's programs. They are designed either to offer a further specialization in a field or discipline already studied at the undergraduate level, or they provide the introduction to a new field of study or discipline, with the express intent to develop some level of specialized knowledge. A graduate diploma consists of a minimum of 30 credits and normally a maximum of 33 credits. Diploma programs do not require a thesis, although a graduating essay, project or report may be required. Diploma programs may require a comprehensive examination.
Graduate certificates are designed to use existing departmental graduate resources to serve a professional clientele which is seeking an upgrading and advanced graduate training over a short time frame. The normal academic base for graduate certificates is the graduate courses presently offered by an academic department, configured in a way to serve the needs of the clientele. The focus of the certificate program should be directed to the needs of the professional clientele; it will be specialized in scope rather than being of a general nature.
With the exception of the special individualized doctoral and master's programs and the Humanities doctoral program, all graduate programs offered by the University are administered by a particular academic department or program in one of the four Faculties of the University, under the general supervision of the Council of the School of Graduate Studies and its chair, the Dean of Graduate Studies. All graduate programs are described in the School of Graduate Studies Calendar. Each description outlines the full-time faculty involved in the program, the objectives of the program, and the research interests of the faculty. Admission requirements, application procedures, degree requirements and program options are specified. In most cases, courses are given in the late afternoon and evening, or in the evening only, making it possible for both full-time and part-time students to attend. Please contact the graduate program director at the number indicated for further information.
Effective June, 1994, students may choose to receive their degrees in either the new gender neutral nomenclature of Baccalaureate, Magisteriate, and Doctorate or the traditional nomenclature of Bachelor, Master, and Doctor.

## Department of Applied Linguistics

 MAJoanna White
848-2447
Department of Applied Human Sciences
MA
Dorothy Markiewicz 848-2260
Department of Art Education and Creative Arts Therapies
MA \& PhD (Art Education)
Richard Lachapelle 848-4639
MA in Creative Arts Therapies
Josée Leclerc 848-4790

Department of Art History
MA \& PhD
Joan Acland
848-4713

## Department of Biology

MSc \& PhD
Paul J. Albert
848-3401
Department of Building, Civil \& Environmental Engineering

|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
| Department of Building, Civil \& Environmental Engineering |  | $848-3200$ |
| Graduate Certificate, MASc, MEng \& PhD (Building) | Kinh Ha-Huy | $848-3200$ |
| Graduate Certificate, MASc, MEng \& PhD (Civil) | Kinh Ha-Huy |  |
|  |  |  |
| John Molson School of Business |  | $848-2708$ |
| MBA | Ronald Ferguson | $848-2994$ |
| Executive MBA | William D. Taylor | $848-2907$ |
| AMBA (International Aviation) | Dale D. Doreen | $848-4157$ |
| MSc (Administration) | Gary W. Johns | $848-4157$ |
| PhD (Administration) | Gary W. Johns | $848-7344$ |
| Diploma in Accountancy | Gail Fayerran | $848-2718$ |
| Diploma in Administration | Clarence Bayne Bayne | $848-2718$ |
| Diploma in Sport Administration | Clarence Bayne | $848-2718$ |
| Graduate Certificates in DIA/DSA | T.B.A. | $848-2788$ |
| Graduate Certificate in E-Business | Wendy Nadine Roscoe | $848-7344$ |
| Graduate Certificate in Management Accountancy |  |  |
|  |  |  |
| Department of Chemistry and Biochemistry | Justin B. Powlowski | $848-3356$ |
| MSc \& PhD |  |  |
|  |  |  |
| Department of Communication Studies | Monique Gagnon | $848-2554$ |
| MA (Media Studies) | Chantal Nadeau | $848-2555$ |
| PhD (Communication) | Hal Thwaites | $848-2555$ |
| Diploma in Communication Studies |  |  |
| Department of Computer Science | Tien D. Bui | $848-3043$ |
| MCompSc \& PhD | Adam Krzyzak | $848-3043$ |
| Diploma in Computer Science | Adam Krzyzak | $848-3043$ |
| Graduate Certificate in User Interface Design for |  |  |

Software Systems
Department of Design
Graduate Certificate in Digital Technologies in Design Art Michael Longford 848-4626
Department of Economics
MA \& PhD

## Department of Education

MA (Educational Studies)
MA (Educational Technology)
PhD (Educational Technology)
MA (Child Study)
Diploma in Adult Education
Diploma in Instructional Technology
Department of Electrical and Computer Engineering

## MASc

MEng
PhD
Graduate Certificate
Faculty of Engineering and Computer Science
MEng (Aerospace)

## Department of English

MA
Département d'études françaises
MA (Traductologie)
Diploma in Translation
Graduate Certificate in anglais-français en langue et techniques de localisation
M. Gregory Leblanc 848-3904
M. Gregory Leblanc 848-3904

| Joyce Barakett | $848-2034$ |
| :--- | ---: |
| Robert M. Bernard | $848-2030$ |
| Robert M. Bernard | $848-2030$ |
| Miranda D'Amico | $848-2031$ |
| Joyce Barakett | $848-2029$ |
| Robert M. Bernard | $848-2030$ |


| M. Reza Soleymani | $848-3103$ |
| :--- | ---: |
| Yousef R. Shayan | $848-3103$ |
| Mustafa K. Mehmet Ali | $848-3103$ |
| Yousef R. Shayan | $848-3103$ |

J.V. Svoboda 848-3132
Nicola Nixon 848-2344

| Paul Bandia | $848-7509$ |
| :--- | :--- |
| Philippe Caignon | $848-7509$ |
| Philippe Caignon | $848-7509$ |


| Faculty of Fine Arts |  |  |
| :---: | :---: | :---: |
| MA (Film Studies) | Martin Lefebvre | 848-4335 |
| MFA (Studio Arts) | Ingrid Bachmann | 848-4609 |
| Diploma in Advanced Music Performance Studies | T.B.A. | 848-4706 |
| Department of Geography |  |  |
| MA (Public Policy and Public |  |  |
| Administration Geography Option) | Alan E. Nash | 848-2050 |
| Diploma in Environmental Impact Assessment | Annie Pollock-McKenna | 848-2050 |
| Department of History |  |  |
| MA \& PhD | Frederick A. Bode | 848-2435 |
| Humanities Program |  |  |
| PhD | Catherine J. Russell | 848-2095 |
| Department of Journalism |  |  |
| Diploma in Journalism | Linda Kay | 848-2465 |
| Department of Mathematics and Statistics |  |  |
| MA, MSc \& PhD | Chantal David | 848-3250 |
| MTM (Master/Magisteriate in the Teaching of Mathematics) | Anna Sierpinska | 848-3250 |
| Department of Mechanical and Industrial Engineering MASc, MEng \& PhD | Subhash Rakheja | 848-3131 |
| Department of Philosophy |  |  |
| MA | Vladimir Zeman | 848-2500 |
| Department of Political Science |  |  |
| MA (Public Policy and Public Administration) | Brooke Jeffrey | 848-2126 |
| Department of Psychology |  |  |
| MA | Dolores Pushkar | 848-2205 |
| PhD | Anna-Beth Doyle | 848-2205 |
| Department of Religion |  |  |
| MA (History and Philosophy of Religion) | Michael D. Oppenheim | 848-2077 |
| MA (Judaic Studies) | Ira Robinson | 848-2077 |
| PhD | Norma Joseph | 848-2077 |
| Department of Sociology and Anthropology |  |  |
| MA (Cultural Anthropology) | Danielle Gauvreau | 848-2161 |
| MA (Sociology) | Danielle Gauvreau | 848-2161 |
| Department of Theological Studies |  |  |
| MA (Theological Studies) | Christine Jamieson | 848-2475 |
| Special Individualized Programs (S.I.P.) |  |  |
| School of Community and Public Affairs |  |  |
| Diploma in Community Economic Development | Eric Shragge | 848-3965 |

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[^0]:    14.4.3

    Faculty of Engineering and Computer Science

[^1]:    Engineering
    Mature entrants to the BEng degree, which requires completion of a minimum of 119.25 to 120 credits
    depending on the program chosen, are also required to complete all outstanding required prerequisites in addition to their program. Prerequisite courses are as follows*:

[^2]:    POLI 375 Nationalism: Origins, Operation, and Significance (3 credits)
    Using specific case studies, this course examines the theories of nationalism developed originally in the early nineteenth century as a purely European phenomenon. It relates the rise of nationalism to the processes of modernization.

[^3]:    12 Minor in Economics
    6 ECON 318, 319 300 level

[^4]:    $\begin{array}{lrl} & 60 & \text { BFA Major in Studio Art } \\ \text { Program } & 6 & \text { Chosen from ARTX } 250^{6}, 260^{6}, 270^{6} \text { or a Studio Art elective, in consultation with an adviser }\end{array}$
    6 Chosen from Art History electives; ARTT electives; ART $261^{6}, 460^{6}$; or SCUL $465^{6}$
    6 DRAW $200^{6}$
    6 Art History electives

